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In cooperation with
United States Department
of the Interior, Bureau of
Land Management;
University of Idaho,
College of Agriculture; and
Idaho Soil Conservation
Commission

Soil Survey of Custer-Lemhi Area, Idaho, Parts of Blaine, Custer, and Lemhi Counties



How To Use This Soil Survey

General Soil Map

The general soil map, which is a color map, shows the survey area divided into groups of associated soils called general soil map units. This map is useful in planning the use and management of large areas.

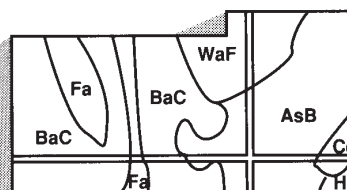
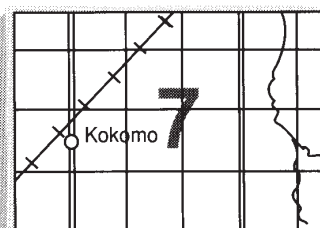
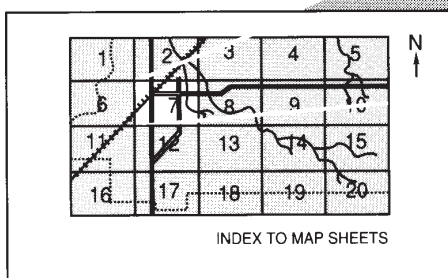
To find information about your area of interest, locate that area on the map, identify the name of the map unit in the area on the color-coded map legend, then refer to the section **General Soil Map Units** for a general description of the soils in your area.

Detailed Soil Maps

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**. 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 **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.



NOTE: Map unit symbols in a soil survey may consist only of numbers or letters, or they may be a combination of numbers and letters.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **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 1993. Soil names and descriptions were approved in 1999. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1993. Tables 4 through 17 were generated in 2003 from the most recent data in the National Soil Information System (NASIS) database. This survey was made cooperatively by the Natural Resources Conservation Service and the United States Department of the Interior, Bureau of Land Management; University of Idaho, College of Agriculture; and Idaho Soil Conservation Commission. The survey is part of the technical assistance furnished to the Blaine Soil Conservation District and the Custer and Lemhi Soil and Water Conservation Districts.

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.

Since the publication of this survey, more information on soil properties may have been collected, new interpretations may have been developed, or existing interpretive criteria may have been modified. The most current soil information and interpretations for this survey are in the Field Office Technical Guide (FOTG) at the local field office of the Natural Resources Conservation Service. The soil maps in this publication are in digital form. The digitizing of the maps was completed in accordance with the Soil Survey Geographic (SSURGO) database standards. The digital SSURGO-certified maps are considered the official maps for the survey area and are part of the FOTG at the local field office of the Natural Resources Conservation Service.

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Cover: View along Carmen Creek toward the Continental Divide in the Beaverhead Mountains.

Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at <http://www.nrcs.usda.gov>.

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Foreword

This soil survey contains information that affects land use planning in this survey area. It contains predictions of soil behavior for selected land uses. The survey also highlights soil limitations, 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.

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

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.

Richard Sims
State Conservationist
Natural Resources Conservation Service

Soil Survey of Custer-Lemhi Area, Idaho, Parts of Blaine, Custer, and Lemhi Counties

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United States Department of Agriculture, Natural Resources Conservation Service,
in cooperation with United States Department of the Interior, Bureau of Land
Management; University of Idaho, College of Agriculture; and Idaho Soil Conservation
Commission

CUSTER-LEMHI AREA is in north-central Idaho (fig. 1). It consists of areas in Custer and Lemhi Counties and a small area in the northern part of Blaine County. It includes parts of the Salmon, Challis, and Targhee National Forests. The total area is 1,959,720 acres, or about 3,062 square miles. Salmon, the county seat of Lemhi County, had a population of about 2,941 in 1990, and Challis, the county seat of Custer County, had a population of about 1,073.

The lowest point in the survey area, which is at an elevation of about 3,700 feet, is north of Salmon, along the Salmon River. The highest point, which is at an elevation of about 10,390 feet, is just south of Monument Peak, along the Idaho-Montana border.

General Nature of the Survey Area

This section gives general information about the survey area. It discusses history and development, natural resources, farming and ranching, and climate.

History and Development

Josh Jones, a Hudson's Bay Company employee, is reported to have crossed Lemhi Pass in 1804. Captain Meriwether Lewis and a handful of men entered Idaho through the same pass on August 12, 1805. From about 1810 to 1840, several parties of free trappers and fur company employees trapped in the area.

One of the first settlements in the area, which was established in 1853, was a Mormon colony at Fort Lemhi, near the present community of Tendoy, on the Lemhi River. This settlement was abandoned in 1858 because of conflicts with the Indians. Remnants of the fort can still be seen on the Mahaffey Ranch.

Around 1860 gold was discovered in Custer County, and strikes were discovered along the Salmon River until the turn of the century. Placer mining took place on Yankee Fork and Loon Creek, near Bayhorse and Clayton. Miners worked an area

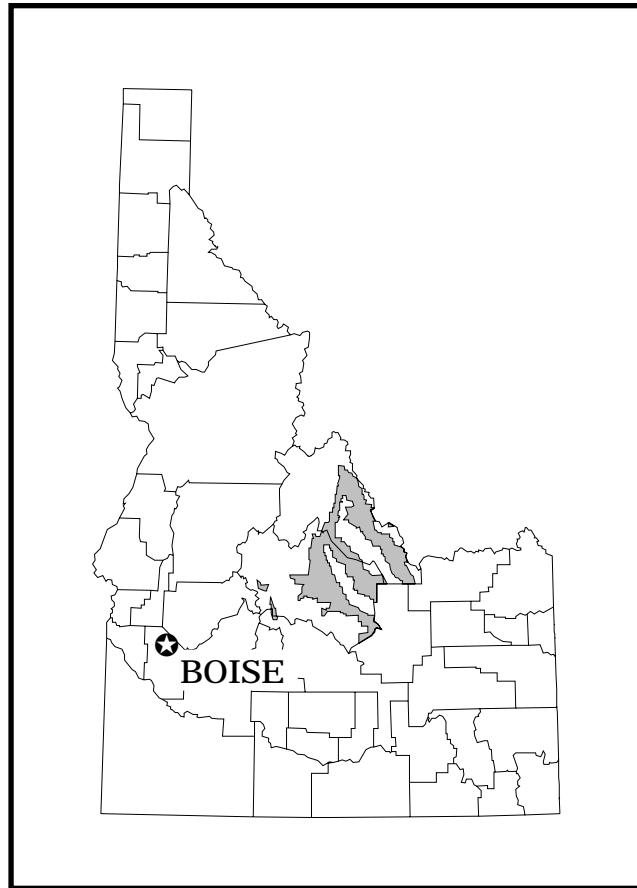


Figure 1.—Location of Custer-Lemhi Area in Idaho.

until it was mined out or until another strike was discovered. The new strike would cause a mass migration to the new area of opportunity. The Leesburg strike of 1866 established the settlement of Salmon as a trading center. About 20 families settled at Salmon and produced food for the miners. Challis was founded in 1876 by Englishman Alvah P. Challis, and it served as a gateway for supply wagons to the mining areas. Other communities soon developed, including Gibbonsville, population 6,000; Leesburg; population 4,000; and Ulysses, Nicholia, Gilmore, Shoup, Bonanza City, Custor, and Bayhorse, population 1,000 each. Prior to 1900, the dominant economic force in the area was mining. Gold, silver, copper, and lead were mined in these areas.

On January 9, 1869, Lemhi County was formed from part of Alturas County by the Territorial Legislature. It was the ninth county formed in Idaho. The first meeting of the county commission was on February 22, 1869. Custer County was formed in January 1891 from parts of Alturas, Lemhi, Boise, and Idaho Counties. Challis became the county seat in June 1891.

Although mining has had a continuing impact on the economy of the area, ranching, farming, timber production, retail trade, government activities, and tourism have largely supplanted mining as the major economic resources in the area. Stock ranching is a mainstay in the area.

The first cattle in the area were longhorn steer that came from Texas by way of Montana. These cattle were “run out,” trailed to the mining camps, and butchered as needed. Range cow herds were imported from Oregon, Utah, southern Idaho, and

Montana. By the early 1870's, the livestock industry was well established. Cattle were herded in the mountains in summer and in the lower meadows along the valleys in winter. The severe winters and the deep snow that resulted brought an end to these types of operations and started the era of raising hay in the valleys and storing it for feeding in winter. The cattlemen struggled on as boomtowns came and went. Even today, ranching is the main industry along the fertile river bottoms.

Agriculture in the area began with the Mormons who diverted water from Pattee Creek to irrigate crops at Fort Lemhi. They had major problems with grasshoppers and late-season frost. In 1863 a man and his son, whose names have been lost, grew vegetable crops at Fort Lemhi. They packed the vegetables across Lemhi Pass for sale. In 1866 Lester Withington established the first homestead in the area at Baker. Other homesteads soon followed. Public land surveying was active from 1873 to 1887.

Natural Resources

The natural resources in the survey area include soil, water, timber, and minerals. Most of the jobs in the area are dependent on these resources.

The farmland along the major rivers and their tributaries is used for pasture and for alfalfa and some grain crops. Because of the extremely mountainous topography, gravelly soils, and low precipitation, most of the land in the area is used as rangeland.

Surface water is used primarily for irrigation, livestock, and recreation. The Salmon, Lemhi, Pahsimeroi, Big Lost, and Little Lost Rivers provide water for the area. Ranchers use the water for cattle and crops. The Salmon River is used heavily for recreational use, including fishing and river floating. Wells are used only in areas where crop returns are high enough for their use to be feasible.

Stands of lodgepole pine, yellow pine, spruce, and Douglas fir support one sawmill and two beam plants in Salmon. Lodgepole pine also supports two or three small pole and post operations.

The area has rich gold, silver, copper, and lead mines. Cobalt and molybdenum have also been mined.

Farming and Ranching

Small grain and hay, including native grasses and alfalfa, are the main crops grown in the survey area. Ranchers reseed the native pastureland and hayland to more productive varieties for cattle.

Most of the land in the area is used as rangeland. The area has been used for ranching since the early 1870's. On January 27, 1953, the Custer Soil and Water Conservation District was formed with its headquarters at Mackay. On July 24, 1962, the Lemhi Soil and Water Conservation District was organized. The main goal of these districts is to control water erosion in the area.

Climate

Prepared by the Natural Resources Conservation Service, National Water and Climate Center, Portland, Oregon.

The climate tables were created from data recorded at the Challis and Grouse, Idaho, climate stations during the period 1961 to 1990 and at the Salmon KSRA, Idaho, climate station during the period 1968 to 1990. Thunderstorm days, relative humidity, percent sunshine, and wind information were estimated from data collected at the First Order stations at Pocatello, Idaho, and Missoula, Montana.

Table 1 gives data on temperature and precipitation for the survey area. Table 2

shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on length of the growing season.

In winter, the average temperature is 23.1 degrees F at Challis, 15.6 degrees at Grouse, and 23.4 degrees at Salmon and the average daily minimum temperature is 12.9 degrees at Challis, 0.7 degrees at Grouse, and 10 degrees at Salmon. The lowest temperature on record is -34 degrees at Challis on December 22, 1990; -42 degrees at Grouse on December 23, 1983; and -34 degrees at Salmon on January 7, 1979. In summer, the average temperature is 65.6 degrees at Challis, 57.6 degrees at Grouse, and 66.8 degrees at Salmon and the average daily maximum temperature is 82.1 degrees at Challis, 76.3 degrees at Grouse, and 84.8 degrees at Salmon. The highest recorded temperature is 103 degrees at Challis on July 26, 1964; 94 degrees at Grouse on August 18, 1986; and 105 degrees at Salmon on July 10, 1973.

Growing degree days are shown in table 1. 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 7.70 inches at Challis, 13.89 inches at Grouse, and 10.08 inches at Salmon. The foothill areas receive more precipitation; as much as 25 inches is received at the higher elevations in the northern and western parts. The growing season is quite short in most of the survey area, ranging from as little as 7 to 14 days late in July in the Stanley Basin to as much as 120 days near Salmon. During the growing season, about 30 to 40 percent of the total annual precipitation typically falls at the lower, warmer elevations. The heaviest 1-day rainfall during the period of record was 1.85 inches at Challis on July 10, 1983; 1.90 inches at Grouse on December 23, 1955; and 1.50 inches at Salmon on April 24, 1971. Thunderstorms occur on about 24 days each year, and most occur in May through August.

The average seasonal snowfall varies across the survey area, ranging from less than 20 inches in the driest valleys to more than 100 inches in the mountains in the northern and western parts. The average seasonal snowfall is 15.4 inches at Challis, 69.5 inches at Grouse, and 28.3 inches at Salmon. The greatest snow depth at any one time during the period of record was 12 inches at Challis on December 26, 1971; 42 inches at Grouse on February 11, 1978; and 18 inches at Salmon on December 31, 1983. On the average, 13 days of the year at Challis, 68 days at Grouse, and 61 days at Salmon have at least 1 inch of snow on the ground. The number of such days varies greatly from year to year. The heaviest 1-day snowfall on record was 11 inches at Challis on November 8, 1985; 20 inches at Grouse on January 10, 1968; and 9.5 inches at Salmon on November 27, 1991.

The average relative humidity in midafternoon is about 45 percent. Humidity is higher at night, and the average at dawn is about 75 percent. The sun shines 78 percent of the time possible in summer and 40 percent in winter. The prevailing wind is dependent on the location in the survey area. Generally, the wind flows parallel to the orientation of the valleys, except on ridges where it is similar to the upper airflow. Average windspeed is highest, 8 miles per hour, in the valleys in spring and early in summer.

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 of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept or model of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil 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 soil 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 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.

General Soil Map Units

The general soil map in this publication shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil map is a unique natural landscape. Typically, it consists of one or more major soils or miscellaneous areas and some minor soils or miscellaneous areas. It is named for the major soils or miscellaneous areas. The components of one map unit can occur in another but in a different pattern.

The general soil map can be used to compare the suitability of large areas for general land uses. Areas of suitable soils can be identified on the map. Likewise, areas where the soils are not suitable can be identified.

Because of its small scale, the map is not suitable for planning the management of a farm or field or for selecting a site for a road or building or other structure. The soils in any one map unit differ from place to place in slope, depth, drainage, and other characteristics that affect management.

The general soil map units in this survey area have been grouped for broad interpretive purposes. The general soil map was created from the aggregation of the detailed soil map units into 14 general soil map units. This aggregation was based on similarities in landforms, parent material, and soil temperature regime. The polygons for the general soil map units were manually delineated on mylar and then digitized.

Cool Soils on Flood Plains, Stream Terraces, Fan Terraces, and Outwash Fans

Percentage of survey area: About 26 percent

1. Mooretown-Tohobit-Bursteadt

Very deep, nearly level, somewhat poorly drained and moderately well drained soils that formed in mixed alluvium

Percentage of survey area: 2 percent

Position on landscape: Flood plains and stream terraces

Elevation: 3,700 to 6,300 feet

Average annual precipitation: 8 to 14 inches

Frost-free period: 50 to 90 days

Minor components: Aquents and Blackfoot, Cowbone, Smout, and Wimpy soils

Major uses: Irrigated cropland, hayland, and pastureland, and rangeland

2. Simeroi-Whitecloud-Ringle

Very deep, undulating to hilly, somewhat excessively drained and well drained soils that formed in alluvium derived from limestone

Percentage of survey area: 10 percent

Position on landscape: Fan terraces and outwash fans

Elevation: 4,500 to 7,000 feet

Average annual precipitation: 6 to 11 inches

Frost-free period: 50 to 100 days

Minor components: Paint, Sanfelipe, and Snowslide soils

Major uses: Irrigated cropland, hayland, and pastureland, and rangeland

3. Pahsimeroi-Whiteknob-Leadore

Very deep, undulating to hilly, somewhat excessively drained and well drained soils that formed in alluvium derived from quartzite

Percentage of survey area: 14 percent

Position on landscape: Fan terraces and outwash fans

Elevation: 4,500 to 6,700 feet

Average annual precipitation: 7 to 11 inches

Frost-free period: 50 to 90 days

Minor components: Bartonflat, Bock, Bunting, Dawtonia, Derwell, Dickeypeak, Firebox, Kadletz, Packmo, Pedoli, Sparmo, Sprabat, and Zer soils

Major uses: Irrigated cropland, hayland, and pastureland, and rangeland

Cool Soils Dominantly on Hills and Mountains

Percentage of survey area: About 31 percent

4. Millhi-Badland-Perreau

Very deep, undulating to steep, moderately well drained and well drained soils that formed in lacustrine sediment, and Badland

Percentage of survey area: 4 percent

Position on landscape: Hills, lacustrine terraces, and stream terraces

Elevation: 3,900 to 6,000 feet

Average annual precipitation: 7 to 11 inches

Frost-free period: 75 to 100 days

Minor components: Lacrol, Morphey, and Oxhead soils

Major uses: Irrigated cropland, hayland, and pastureland, and rangeland

5. Dacont-Gaciba-Farvant

Shallow and very deep, rolling to very steep, well drained soils that formed in colluvium and residuum derived from extrusive igneous rock and tuff

Percentage of survey area: 12 percent

Position on landscape: Hills and mountains

Elevation: 5,000 to 7,300 feet

Average annual precipitation: 6 to 14 inches

Frost-free period: 50 to 90 days

Minor components: Bayhorse, Frailton, Gradco, Howcan, Mitring, Mogg, and Ureal soils

Major uses: Rangeland and wildlife habitat

6. Calcids-Dawtonia-Venum

Moderately deep to very deep, rolling to very steep, well drained soils that formed in colluvium and alluvium derived from quartzite and mixed rock sources

Percentage of survey area: 15 percent

Position on landscape: Hills and mountains
Elevation: 3,900 to 7,000 feet
Average annual precipitation: 7 to 14 inches
Frost-free period: 60 to 100 days
Minor components: Challis, Cronks, Snowslide, and Zer soils
Major uses: Rangeland and wildlife habitat

Cold Soils on Flood Plains, Stream Terraces, Fan Terraces, and Outwash Fans

Percentage of survey area: About 12 percent

7. Biglost-Copperbasin-Thosand

Very deep, nearly level, poorly drained to moderately well drained soils that formed in mixed alluvium

Percentage of survey area: 4 percent
Position on landscape: Flood plains and stream terraces
Elevation: 4,500 to 7,400 feet
Average annual precipitation: 8 to 18 inches
Frost-free period: 5 to 60 days
Minor components: Bigrant, Fezip, Leecreek, Lemroi, Lilylake, Redfish, and Wiskisprings soils
Major uses: Irrigated pastureland, rangeland, and wildlife habitat

8. Arbus-Fadow-Mountainboy

Shallow to a hardpan and very deep, undulating to hilly, somewhat excessively drained and well drained soils that formed in alluvium derived from limestone

Percentage of survey area: 5 percent
Position on landscape: Fan terraces and outwash fans
Elevation: 6,000 to 7,500 feet
Average annual precipitation: 8 to 16 inches
Frost-free period: 30 to 80 days
Minor components: Bluedome, Goosebury, Surrect, and Windcoat soils
Major uses: Rangeland

9. Chamberlain-Wiggleton-Busterback

Very deep, nearly level to undulating, well drained and somewhat excessively drained soils that formed in glacial outwash and alluvium derived from granite, quartzite, and limestone and mixed rock sources

Percentage of survey area: 3 percent
Position on landscape: Fan terraces, stream terraces, and outwash fans
Elevation: 6,200 to 7,500 feet
Average annual precipitation: 12 to 20 inches
Frost-free period: 5 to 60 days
Minor components: Castlepeak, Geemore, and Yankeefork soils
Major uses: Irrigated pastureland and rangeland

Cold Soils Dominantly on Hills and Mountains

Percentage of survey area: About 31 percent

10. Heathcoat-Escarlo-Brabas

Very deep, rolling to steep, well drained soils that formed in uplifted lacustrine sediment and alluvial deposits

Percentage of survey area: 2 percent

Position on landscape: Hills

Elevation: 6,500 to 8,400 feet

Average annual precipitation: 11 to 16 inches

Frost-free period: 30 to 60 days

Minor components: Goldhill and Soen soils

Major uses: Rangeland and wildlife habitat

11. Klug-Povey-Threedot

Very deep, hilly to very steep, well drained and moderately well drained soils that formed in colluvium and glacial till derived from quartzite and granite

Percentage of survey area: 6 percent

Position on landscape: Mountains and moraines

Elevation: 6,000 to 9,000 feet

Average annual precipitation: 12 to 22 inches

Frost-free period: 10 to 70 days

Minor components: Goldhill, Hagenbarth, Langer, and Reck soils

Major uses: Rangeland and wildlife habitat

12. Zeebar-Donkehill-Parkay

Shallow and very deep, hilly to very steep, well drained soils that formed in colluvium and residuum derived from extrusive igneous rock

Percentage of survey area: 9 percent

Position on landscape: Mountains and hills

Elevation: 6,500 to 9,000 feet

Average annual precipitation: 12 to 22 inches

Frost-free period: 30 to 60 days

Minor components: Friedman, Gaciba, Nielsen, Nurkey, and Resoot soils

Major uses: Rangeland and wildlife habitat

13. Cryolls-Zeale-Zeelnot

Moderately deep to very deep, hilly to very steep, well drained soils that formed in colluvium and alluvium derived from limestone and mixed rock sources

Percentage of survey area: 8 percent

Position on landscape: Mountains and hills

Elevation: 6,500 to 10,390 feet

Average annual precipitation: 12 to 30 inches

Frost-free period: 5 to 60 days

Minor components: Adek, Jimbee, Meegernot, Meegero, and Nitchly soils, Rock outcrop, and Skibo soils

Major uses: Rangeland and wildlife habitat

14. Cryepts-Lag-Ketchum

Moderately deep to very deep, hilly to very steep, well drained soils that formed in colluvium derived from quartzite, phyllite, and sandstone and mixed rock sources

Percentage of survey area: 6 percent

Position on landscape: Mountains

Elevation: 6,000 to 10,000 feet

Average annual precipitation: 18 to 30 inches

Frost-free period: 5 to 60 days

Minor components: Coalkiln, Ezbin, Gany, and Lemco soils, Rock outcrop, and Struggle and Zeebar soils

Major uses: Woodland and wildlife habitat

Detailed Soil Map Units

The map units delineated 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.

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

Some minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, soils. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

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

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives 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, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown

on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Simeroi gravelly loam, 2 to 6 percent slopes, is a phase of the Simeroi series.

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

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. Paint-Bluedome complex, 2 to 10 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Mogg-Dawtonia association, 20 to 40 percent slopes, is an example.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Table 4 gives the acreage and proportionate extent of each map unit. Other 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.

1—Alpinepeak very gravelly sandy loam, 1 to 4 percent slopes

Composition

Alpinepeak and similar soils—75 percent

Dissimilar soils—25 percent

Setting

Position on landscape: Outwash fans and stream terraces

Elevation: 6,200 to 6,600 feet

Average annual precipitation: 12 to 16 inches

Average annual air temperature: 34 to 38 degrees F

Frost-free season: 5 to 30 days

Characteristics of Alpinepeak

Typical profile:

0 to 3 inches—brown very gravelly sandy loam

3 to 14 inches—yellowish brown very gravelly sandy loam

14 to 32 inches—yellowish brown extremely gravelly sandy loam

32 to 60 inches—light yellowish brown extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2 to 3 inches

Effective rooting depth: 20 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 30 to 42 inches in June through September

Dissimilar Soils

- A very deep, poorly drained soil that is very gravelly sandy clay loam over extremely

gravelly sandy loam over extremely gravelly loamy coarse sand and in swales on stream terraces (10 percent)

- A very deep, poorly drained soil that is gravelly loam over very gravelly loam over very gravelly sandy loam and in swales on stream terraces (5 percent)
- A somewhat poorly drained soil that is shallow to sand and gravel, gravelly loam over very gravelly sandy loam, and in convex areas on stream terraces (5 percent)
- A very deep, well drained soil that is very gravelly sandy loam over extremely gravelly sandy loam and in higher convex areas on terraces (5 percent)

Major Uses

Rangeland, irrigated pasture

Interpretive Groups

Land capability classification: 6s, nonirrigated and irrigated

Range site: SEMIWET MEADOW, sedge

2—Aquents-Riverwash complex, nearly level

Composition

*Aquents and similar soils—*75 percent

*Riverwash—*20 percent

*Dissimilar soil—*5 percent

Setting

Position on landscape: Flood plains

Elevation: 4,000 to 6,000 feet

Slope: 0 to 2 percent

Average annual precipitation: 8 to 14 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free season: 40 to 70 days

Characteristics of Aquents

Representative profile:

0 to 2 inches—light brownish gray very cobbly fine sandy loam

2 to 60 inches—light yellowish brown and light brownish gray, stratified extremely cobbly loamy coarse sand to silt loam

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Rapid

Available water capacity: 1 to 6 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in January through December

Periods of flooding: Frequency—frequent; duration—long; months—April through July

Characteristics of Riverwash

Unstabilized, recently water-deposited sediment that is flooded, washed, and reworked frequently by water

Dissimilar Soil

- A very deep, poorly drained soil that is very gravelly silt loam and in marshes on flood plains (5 percent)

Major Uses

Wildlife habitat, recreation

Interpretive Groups

Land capability classification: Aquents and Riverwash—8

Range site: Not assigned

3—Arbus gravelly loam, 1 to 4 percent slopes**Composition**

Arbus and similar soils—85 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,500 to 7,100 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 30 to 60 days

Characteristics of Arbus

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 12 inches—brown very gravelly loam

12 to 60 inches—light brownish gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 3.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Leatherman soils on lower fan terraces (5 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly loam and in drainageways on outwash fans and fan terraces (5 percent)
- A very deep, somewhat excessively drained soil that is very gravelly loam over extremely gravelly loam and on outwash fans and fan terrace side slopes of more than 6 percent (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site: SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ, low sagebrush/
bluebunch wheatgrass

4—Arco silt loam, 0 to 2 percent slopes**Composition**

Arco and similar soils—90 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Stream terraces

Elevation: 4,700 to 5,900 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 41 to 43 degrees F

Frost-free season: 70 to 90 days

Characteristics of Arco

Typical profile:

0 to 13 inches—grayish brown and light brownish gray silt loam

13 to 54 inches—light brownish gray and light gray silt loam

54 to 60 inches—light gray gravelly loam

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderately slow

Available water capacity: 10 to 12 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Hazard of wind erosion: Moderate

Depth to high water table: 24 to 36 inches in April through June

Periods of flooding: Frequency—occasional; duration—brief; months—April through June

Dissimilar Soils

- Thosand soils on low stream terraces (5 percent)
- Bigrant soils on low stream terraces (5 percent)

Major Uses

Irrigated pastureland and hayland, rangeland

Interpretive Groups

Land capability classification: 4c, nonirrigated, and 3w, irrigated

Range site: SEMIWET MEADOW

5—Badland-Millhi complex, 10 to 50 percent slopes

Composition

Badland—50 percent

Millhi and similar soils—35 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Hills (fig. 2)

Elevation: 3,900 to 5,000 feet

Average annual precipitation: 7 to 9 inches

Average annual air temperature: 42 to 45 degrees F

Frost-free season: 75 to 100 days

Characteristics of Badland

Description: Nearly barren, fragile areas composed mainly of bentonite clay

Position on landscape: Terrace escarpments; intermittent streams erode the escarpments and expose the soft bentonite clay



Figure 2.—Typical area of Badland-Millhi complex, 10 to 50 percent slopes.

Vegetation: Little, if any

Runoff: Rapid or very rapid

Hazard of water erosion: Severe or very severe

Characteristics of Millhi

Typical profile:

0 to 1 inch—pale brown gravelly clay

1 to 60 inches—light yellowish brown and pale brown clay loam and clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 6 to 12 inches

Effective rooting depth: 1 to 9 inches

Runoff: Medium to very rapid

Hazard of water erosion: Slight or moderate

Depth to perched water table: At the surface to a depth of 6 inches below the surface
in February through April

Shrink-swell potential: High

Salinity: Moderate

Dissimilar Soils

- Zer soils in drainageways on hills (5 percent)
- A very deep, well drained soil that is gravelly silt loam over clay loam and in concave areas on north-facing slopes (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Badland—8; Millhi—7e, nonirrigated

Range site: Millhi—FRAGILE LANDS 7 TO 9 INCH PZ, shadscale saltbush/Salmon wildrye

6—Bartonflat gravelly loam, 1 to 4 percent slopes

Composition

Bartonflat and similar soils—80 percent
Dissimilar soils—20 percent

Setting

Position on landscape: Fan terraces and stream terraces
Elevation: 6,000 to 6,400 feet
Average annual precipitation: 7 to 12 inches
Average annual air temperature: 37 to 41 degrees F
Frost-free season: 50 to 90 days

Dissimilar Soils

- A very deep, somewhat excessively drained soil that is light-colored very gravelly sandy loam over extremely gravelly loamy sand and in convex areas on fan terraces (10 percent)
- A very deep, somewhat excessively drained soil that is very gravelly sandy loam over extremely gravelly loamy sand and on upper fan terraces (10 percent)

Characteristics of Bartonflat

Typical profile:

- 0 to 7 inches—brown gravelly loam
- 7 to 11 inches—light yellowish brown and pale brown extremely gravelly sandy loam
- 11 to 60 inches—brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Major Uses

Irrigated pastureland and hayland, rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated, and 4e, irrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

7—Bartonflat very gravelly sandy loam, 0 to 6 percent slopes

Composition

Bartonflat and similar soils—75 percent
Dissimilar soils—25 percent

Setting

Position on landscape: Fan terraces and stream terraces

Elevation: 5,000 to 6,600 feet

Average annual precipitation: 7 to 12 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free season: 50 to 90 days

Characteristics of Bartonflat

Typical profile:

0 to 5 inches—brown very gravelly sandy loam

5 to 9 inches—brown extremely gravelly sandy loam

9 to 60 inches—multicolored extremely gravelly loamy coarse sand and extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 1 to 3 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, somewhat excessively drained soil that is light colored very gravelly sandy loam over extremely gravelly loamy coarse sand and on upper stream terraces (10 percent)
- A somewhat excessively drained very gravelly sandy loam that is moderately deep to sand and gravel and in concave areas on flood plains (5 percent)
- A very deep, poorly drained soil that is sandy loam over silty clay loam over extremely gravelly loamy coarse sand and in concave areas on flood plains (5 percent)
- A very deep, somewhat poorly drained soil that is very fine sandy loam over silty clay loam and in concave areas on flood plains (5 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated, and 6e, irrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

8—Bartonhill-Whitecloud complex, 5 to 15 percent slopes

Composition

Bartonhill and similar soils—55 percent

Whitecloud and similar soils—30 percent

Dissimilar soils—15 percent

Setting

Position on landscape: South- and west-facing outwash fan terraces

Elevation: 6,000 to 7,000 feet

Average annual precipitation: 8 to 11 inches
Average annual air temperature: 37 to 40 degrees F
Frost-free season: 50 to 60 days

Characteristics of Bartonhill

Typical profile:

0 to 3 inches—grayish brown very gravelly fine sandy loam
 3 to 12 inches—gray very gravelly fine sandy loam
 12 to 22 inches—dark grayish brown fine sandy loam
 22 to 46 inches—very dark gray extremely gravelly coarse sandy loam
 46 to 56 inches—very dark grayish brown loamy fine sand
 56 to 60 inches—very dark gray extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 20 to 26 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Whitecloud

Typical profile:

0 to 5 inches—grayish brown very gravelly loam
 5 to 19 inches—light brownish gray and grayish brown extremely gravelly sandy loam
 19 to 60 inches—light brownish gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Simeroi soils in convex areas on outwash fans (10 percent)
- A very deep, well drained soil that is extremely gravelly loam and in convex areas on fan terraces (5 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: Bartonhill and Whitecloud—6s, nonirrigated, and 4e, irrigated

Range site: Bartonhill—ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass; Whitecloud—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

9—Bayhorse association, 20 to 50 percent slopes

Composition

Bayhorse, north and east aspects, and similar soils—40 percent

Bayhorse, south and west aspects, and similar soils—35 percent
Dissimilar areas—25 percent

Setting

Position on landscape: Ridges
Elevation: 5,300 to 6,500 feet
Average annual precipitation: 8 to 11 inches
Average annual air temperature: 37 to 41 degrees F
Frost-free season: 60 to 90 days

Characteristics of Bayhorse, North and East Aspects

Typical profile:
 0 to 8 inches—pale brown and yellowish brown gravelly loam
 8 to 12 inches—yellowish brown very gravelly loam
 12 to 18 inches—yellowish brown very gravelly clay loam
 18 to 28 inches—indurated andesite
Depth class: Shallow to andesite
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 1.5 to 2.5 inches
Effective rooting depth: 12 to 20 inches
Runoff: Rapid
Hazard of water erosion: Severe

Characteristics of Bayhorse, South and West Aspects

Typical profile:
 0 to 2 inches—brown gravelly loam
 2 to 12 inches—yellowish brown very gravelly loam
 12 to 16 inches—indurated andesite
Depth class: Shallow to andesite
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 1.5 to 2.5 inches
Effective rooting depth: 12 to 20 inches
Runoff: Rapid
Hazard of water erosion: Severe

Dissimilar Areas

- A well drained soil that is moderately deep to bedrock, gravelly loam over very gravelly clay loam, and on ridges (10 percent)
- Rock outcrop on ridges and side slopes (10 percent)
- Rubble land on ridges and side slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 7e, nonirrigated
Range site: Bayhorse, north and east aspects—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Bayhorse, south and west aspects—FLAGSTONE 8 TO 11 INCH PZ, Wyoming big sagebrush/salmon wildrye

10—Bayhorse-Dawtonia association, 15 to 40 percent slopes

Composition

Bayhorse and similar soils—45 percent

Dawtonia and similar soils—40 percent

Dissimilar areas—15 percent

Bayhorse

Setting

Position on landscape: South- and west-facing ridges

Elevation: 5,200 to 6,300 feet

Average annual precipitation: 8 to 9 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free season: 60 to 90 days

Soil characteristics

Typical profile:

0 to 2 inches—brown gravelly loam

2 to 12 inches—yellowish brown very gravelly loam

12 to 16 inches—indurated andesite

Depth class: Shallow to andesite

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 12 to 20 inches

Runoff: Rapid

Hazard of water erosion: Severe

Dawtonia

Setting

Position on landscape: North- and east-facing ridges

Elevation: 5,200 to 6,300 feet

Average annual precipitation: 8 to 9 inches

Average annual air temperature: 39 to 43 degrees F

Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

0 to 3 inches—yellowish brown very gravelly loam

3 to 10 inches—yellowish brown very gravelly loam

10 to 60 inches—light yellowish brown and yellowish brown very gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 5.0 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Areas

- Rock outcrop on ridges and side slopes (10 percent)
- Rubble land on ridges and side slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Bayhorse and Dawtonia—6e, nonirrigated

Range site: Bayhorse and Dawtonia—FLAGSTONE 8 TO 11 INCH PZ, Wyoming big sagebrush/salmon wildrye

11—Bigflat-Dacont complex, 4 to 8 percent slopes

Composition

Bigflat and similar soils—60 percent

Dacont and similar soils—20 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Bigflat—linear to convex areas on fan terraces; Dacont—linear to concave areas on fan terraces

Elevation: 6,000 to 6,300 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 40 to 45 degrees F

Frost-free season: 65 to 80 days

Characteristics of Bigflat

Typical profile:

0 to 10 inches—brown and grayish brown loam

10 to 15 inches—grayish brown clay

15 to 49 inches—light brownish gray clay loam

49 to 61 inches—light brownish gray very gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 9.5 to 11.0 inches

Effective rooting depth: 5 to 10 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Dacont

Typical profile:

0 to 8 inches—dark grayish brown gravelly loam

8 to 18 inches—dark grayish brown and pale brown very gravelly clay loam

18 to 60 inches—light brownish gray and pale brown extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Cronks and Shenon soils on higher fan terraces (5 percent)

- A very deep, poorly drained soil that is clay and in concave areas on fan terraces (10 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly loam and on fan terraces (5 percent)

Major Uses

Irrigated hayland, pastureland, and cropland; rangeland; and wildlife habitat

Interpretive Groups

Land capability classification: Bigflat—6e, nonirrigated, and 3e, irrigated; Dacont—6e, nonirrigated, and 4e, irrigated

Range site: Bigflat—not assigned; Dacont—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

12—Biglost-Copperbasin complex, 0 to 4 percent slopes

Composition

Biglost and similar soils—50 percent

Copperbasin and similar soils—30 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Flood plains

Elevation: 4,800 to 6,500 feet

Average annual precipitation: 10 to 13 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free season: 40 to 60 days

Characteristics of Biglost

Slope: 2 to 4 percent

Typical profile:

0 to 5 inches—brown gravelly fine sandy loam

5 to 23 inches—brown very fine sandy loam

23 to 60 inches—multicolored stratified extremely gravelly loamy fine sand to extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 20 to 30 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 54 to 72 inches in April through June

Periods of flooding: Frequency—occasional; duration—brief; months—March through June

Characteristics of Copperbasin

Slope: 0 to 2 percent

Typical profile:

0 to 5 inches—grayish brown very gravelly fine sandy loam

5 to 25 inches—multicolored extremely gravelly loamy fine sand and extremely gravelly loamy sand

25 to 33 inches—multicolored extremely cobbly sand

33 to 60 inches—multicolored extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 42 inches in March through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soils

- A somewhat poorly drained soil that is moderately deep to sand and gravel, light-colored very gravelly sandy loam over extremely gravelly loamy coarse sand, and on gravel bars on flood plains (10 percent)
- A very deep, moderately well drained soil that is silt loam over very gravelly very fine sandy loam and on stream terraces (5 percent)
- A very deep, well drained soil that is very gravelly sandy loam and on lower flood plains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Biglost—6s, nonirrigated and irrigated;

Copperbasin—6c, nonirrigated and irrigated

Range site: Biglost—ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass; Copperbasin—RIVERBOTTOM 10 TO 16 INCH PZ, black cottonwood/western wheatgrass

13—Bigrant complex, 0 to 2 percent slopes

Composition

Bigrant, very poorly drained, and similar soils—40 percent

Bigrant, poorly drained, and similar soils—40 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Bigrant, very poorly drained—concave areas on flood plains;

Bigrant, poorly drained—linear to convex areas on flood plains

Elevation: 4,800 to 6,400 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 36 to 42 degrees F

Frost-free season: 35 to 55 days

Characteristics of Bigrant, Very Poorly Drained

Typical profile:

2 inches to 0—slightly decomposed organic material

0 to 5 inches—grayish brown silty clay loam

5 to 60 inches—grayish brown, gray, pale yellow, and light olive gray silty clay loam

Depth class: Very deep

Drainage class: Very poorly drained

Permeability: Moderately slow
Available water capacity: 9.5 to 12.0 inches
Effective rooting depth: 60 inches or more
Runoff: Slow
Hazard of water erosion: Slight
Depth to high water table: At the surface to a depth of 12 inches below the surface in April through July
Periods of flooding: Frequency—occasional; duration—brief; months—April through September
Shrink-swell potential: Moderate

Characteristics of Bigrant, Poorly Drained

Typical profile:

4 inches to 0—highly decomposed organic material
 0 to 19 inches—gray and grayish brown silty clay loam
 19 to 29 inches—light brownish gray clay loam and light gray clay
 29 to 60 inches—pale olive and light olive gray loam

Depth class: Very deep
Drainage class: Poorly drained
Permeability: Moderately slow
Available water capacity: 10.0 to 12.5 inches
Effective rooting depth: 60 inches or more
Runoff: Slow
Hazard of water erosion: Slight
Depth to high water table: At the surface to a depth of 18 inches below the surface in April through July
Periods of flooding: Frequency—occasional; duration—brief; months—April through September
Shrink-swell potential: Moderate

Dissimilar Soils

- A very deep, poorly drained soil that is dark-colored silt loam over silty clay loam and on stream terraces (10 percent)
- A very deep soil that is silt loam over silty clay loam over sand and gravel and on stream terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Bigrant, very poorly drained—5w, nonirrigated;
 Bigrant, poorly drained—4w, nonirrigated
Range site: Bigrant, very poorly drained—WET MEADOW; Bigrant, poorly drained—SEMIWET MEADOW

14—Bigrant-Thosand-Dickeypeak complex, 0 to 4 percent slopes

Composition

Bigrant and similar soils—35 percent
Thosand and similar soils—30 percent
Dickeypeak and similar soils—20 percent
Dissimilar soils—15 percent

Setting

Position on landscape: Bigrant and Thosand—flood plains; Dickeypeak—convex areas on stream terraces

Elevation: 4,800 to 6,600 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 36 to 42 degrees F

Frost-free season: 35 to 75 days

Characteristics of Bigrant

Slope: 0 to 3 percent

Typical profile:

4 inches to 0—highly decomposed organic material

0 to 19 inches—gray and grayish brown silt loam

19 to 29 inches—light brownish gray silty clay loam and light gray clay

29 to 60 inches—light olive gray and pale olive loam

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately slow

Available water capacity: 9.5 to 12.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: At the surface to a depth of 12 inches below the surface in April through July

Periods of flooding: Frequency—occasional; duration—brief; months—April through September

Shrink-swell potential: Moderate

Characteristics of Thosand

Slope: 0 to 2 percent

Typical profile:

0 to 5 inches—light gray silt loam

5 to 22 inches—gray and pale olive silt loam

22 to 39 inches—light olive gray gravelly silt loam

39 to 44 inches—pale olive very gravelly silt loam

44 to 60 inches—gray extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 5.5 to 8.5 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 12 inches above the surface to a depth of 12 inches below the surface in November through August

Periods of flooding: Frequency—occasional; duration—brief; months—April through July

Characteristics of Dickeypeak

Slope: 2 to 4 percent

Typical profile:

0 to 3 inches—grayish brown silty clay loam

3 to 32 inches—light gray clay loam and loam

32 to 52 inches—light gray and pale yellow loam and fine sandy loam

52 to 60 inches—light gray gravelly fine sandy loam

60 to 65 inches—greenish gray very gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 8.5 to 10.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 42 inches in March through August

Dissimilar Soils

- Chillybu soils in concave areas on flood plains (5 percent)
- A very deep, somewhat poorly drained soil that is silt loam over gravelly silt loam and in concave areas on terraces (10 percent)

Major Uses

Irrigated pastureland, rangeland

Interpretive Groups

Land capability classification: Bigrant—4w, nonirrigated and irrigated; Thosand—5w, nonirrigated and irrigated; Dickeypeak—6s, nonirrigated and irrigated

Range site: Bigrant—SEMIWET MEADOW; Thosand—WET MEADOW; Dickeypeak—SALINE LOAMY 8 TO 11 INCH PZ, black greasewood/basin wildrye

15—Blackfoot loam, 0 to 2 percent slopes

Composition

*Blackfoot and similar soils—*75 percent

*Dissimilar soils—*25 percent

Setting

Position on landscape: Flood plains

Elevation: 5,200 to 5,700 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 40 to 45 degrees F

Frost-free season: 70 to 90 days

Characteristics of Blackfoot

Typical profile:

0 to 10 inches—gray loam

10 to 27 inches—grayish brown loam

27 to 40 inches—dark grayish brown silty clay loam

40 to 60 inches—dark grayish brown fine sandy loam

Depth class: Very deep

Drainage class: Moderately well drained as a result of artificial drainage by the damming of the Big Lost River at Mackay Reservoir

Permeability: Moderate

Available water capacity: 9.0 to 11.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 48 to 72 inches in March through October

Shrink-swell potential: Moderate

Dissimilar Soils

- Borah soils on convex gravel bars on flood plains (10 percent)
- Mooretown soils on flood plains (5 percent)
- A very deep, somewhat poorly drained soil that is loam over clay and in concave areas on flood plains (5 percent)
- A very deep, somewhat poorly drained soil that is dark-colored silt loam over silty clay loam and on lower stream terraces (5 percent)

Major Uses

Irrigated cropland, hayland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: 6c, nonirrigated, and 3c, irrigated

Range site: ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/wheatgrass

16—Blackfoot-Borco complex, 0 to 2 percent slopes

Composition

*Blackfoot soils and similar soils—*45 percent

*Borco soils and similar soils—*40 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Blackfoot—linear to concave areas on flood plains; Borco—linear to convex areas on flood plains

Elevation: 5,200 to 5,700 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 40 to 45 degrees F

Frost-free season: 70 to 90 days

Characteristics of Blackfoot

Typical profile:

0 to 10 inches—dark gray loam

10 to 27 inches—dark brown loam

27 to 40 inches—dark grayish brown silty clay loam

40 to 60 inches—dark grayish brown fine sandy loam

Depth class: Very deep

Drainage class: Moderately well drained as a result of artificial drainage by the damming of the Big Lost River at Mackay Reservoir

Permeability: Moderate

Available water capacity: 9.0 to 11.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 48 to 72 inches in March through October

Shrink-swell potential: Moderate

Characteristics of Borco

Typical profile:

0 to 2 inches—grayish brown very gravelly loam

2 to 10 inches—brown and grayish brown gravelly loam and gravelly sandy loam

10 to 60 inches—multicolored extremely gravelly sand and extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Periods of flooding: Frequency—rare; duration—brief; months—May through June

Dissimilar Soils

- Arco soils in concave areas on flood plains (5 percent)
- A very deep, poorly drained soil that is loam over fine sandy loam and in depressions on flood plains (10 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: Blackfoot—6c, nonirrigated, and 3c, irrigated; Borco—6s, nonirrigated, and 4s, irrigated

Range site: Blackfoot and Borco—ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass

17—Bluedome loam, 2 to 6 percent slopes

Composition

Bluedome and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,600 to 6,900 feet

Average annual precipitation: 9 to 11 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 40 to 60 days

Characteristics of Bluedome

Typical profile:

0 to 3 inches—brown loam

3 to 34 inches—pale brown and very pale brown loam

34 to 46 inches—very pale brown cemented duripan

46 to 60 inches—very pale brown extremely gravelly loamy coarse sand

Depth class: Moderately deep to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Available water capacity: 2.0 to 7.5 inches

Effective rooting depth: 20 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, well drained soil that is gravelly loam over extremely gravelly loamy sand and in mounds on fan terraces (10 percent)
- A very deep, well drained soil that is loam over sandy loam and in drainageways on fan terraces and outwash fans (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

18—Bock-Breitenbach complex, 4 to 8 percent slopes

Composition

*Bock and similar soils—*55 percent

*Breitenbach and similar soils—*25 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Stream terraces

Elevation: 5,300 to 5,700 feet

Average annual precipitation: 10 to 12 inches

Average annual air temperature: 41 to 45 degrees F

Frost-free season: 70 to 90 days

Characteristics of Bock

Typical profile:

0 to 7 inches—brown loam

7 to 60 inches—light brownish gray, grayish brown, and pale brown gravelly loam and fine sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 7 to 10 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Breitenbach

Typical profile:

0 to 10 inches—brown loam

10 to 21 inches—very pale brown very gravelly loam

21 to 60 inches—very pale brown and light yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 4.0 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Misfire soils on upper terraces (5 percent)
- Pattee soils on hills (5 percent)
- A very deep, well drained soil that is calcareous loam over very gravelly fine sandy loam and on higher terraces (10 percent)

Major Uses

Irrigated hayland, cropland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: Bock and Breitenbach—6e, nonirrigated, and 3e, irrigated

Range site: Bock—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Breitenbach—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

19—Bock-Bromaglin complex, 1 to 4 percent slopes

Composition

Bock and similar soils—55 percent

Bromaglin and similar soils—35 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Stream terraces and alluvial fans

Elevation: 3,800 to 6,600 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 39 to 45 degrees F

Frost-free season: 75 to 100 days

Characteristics of Bock

Typical profile:

0 to 18 inches—brown and yellowish brown silt loam

18 to 48 inches—light brownish gray, grayish brown, and pale brown gravelly loam and fine sandy loam

48 to 60 inches—pale brown very gravelly loamy sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 7 to 10 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Bromaglin

Typical profile:

0 to 5 inches—brown silt loam

5 to 12 inches—brown very fine sandy loam

12 to 20 inches—light brownish gray sandy loam

20 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 14 to 24 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, moderately well drained soil that is loam over very gravelly loamy sand and in depressions on stream terraces (5 percent)
- A very deep, well drained soil that is silt loam over extremely gravelly sandy loam and on lower stream terraces (5 percent)

Major Uses

Irrigated hayland, cropland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: Bock—6e, nonirrigated, and 3c, irrigated; Bromaglin—6s, nonirrigated, and 4e, irrigated

Range site: Bock—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Bromaglin—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

20—Bockston loam, 0 to 4 percent slopes

Composition

*Bockston and similar soils—*75 percent

*Dissimilar soils—*25 percent

Setting

Position on landscape: Stream terraces and fan terraces

Elevation: 5,400 to 5,600 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 41 to 43 degrees F

Frost-free season: 70 to 80 days

Characteristics of Bockston

Typical profile:

0 to 8 inches—brown loam

8 to 34 inches—pale brown silt loam

34 to 47 inches—pale brown loam

47 to 60 inches—pale brown gravelly fine sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 8.0 to 11.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Arco soils on lower terraces (5 percent)
- A very deep, well drained soil that is light-colored silt loam and on upper fan terraces (10 percent)
- A very deep, well drained soil that is loam over clay loam and on lower stream terraces (5 percent)

- A very deep, somewhat poorly drained soil that is loam and on lower terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

21—Brabas-Heathcoat complex, 8 to 30 percent slopes

Composition

Brabas and similar soils—65 percent

Heathcoat and similar soils—25 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Hills

Elevation: 6,800 to 7,500 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free season: 40 to 60 days

Characteristics of Brabas

Typical profile:

0 to 3 inches—grayish brown very gravelly loam

3 to 8 inches—brown gravelly clay loam

8 to 17 inches—light yellowish brown silty clay

17 to 30 inches—white and pale brown extremely gravelly loam and extremely gravelly loamy sand

30 to 60 inches—light yellowish brown and very pale brown gravelly silty clay and silty clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 6 to 7 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Characteristics of Heathcoat

Typical profile:

0 to 3 inches—dark grayish brown gravelly silt loam

3 to 7 inches—dark grayish brown silty clay loam

7 to 15 inches—dark grayish brown and brown silty clay

15 to 24 inches—pale brown gravelly clay

24 to 44 inches—pale brown silty clay

44 to 60 inches—light yellowish brown silty clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 7.5 to 10.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Dissimilar Soils

- A very deep, well drained soil that is gravelly silt loam over clay loam over very gravelly clay loam and on lower hills (5 percent)
- A very deep, somewhat poorly drained soil that is gravelly loam over clay loam over gravelly clay loam and in concave areas on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Brabas—7e, nonirrigated; Heathcoat—6s, nonirrigated

Range site: Brabas—WINDSWEPT RIDGE 11 TO 16 INCH PZ, threetip sagebrush-low sagebrush/bluegrass; Heathcoat—LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

22—Breitenbach gravelly loam, 1 to 4 percent slopes

Composition

*Breitenbach and similar soils—*75 percent

*Dissimilar soils—*25 percent

Setting

Position on landscape: Alluvial fans and stream terraces

Elevation: 4,500 to 6,500 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 38 to 43 degrees F

Frost-free season: 70 to 90 days

Characteristics of Breitenbach

Typical profile:

0 to 5 inches—brown gravelly loam

5 to 18 inches—brown very gravelly loam

18 to 40 inches—brown very gravelly sandy loam and extremely gravelly sandy loam

40 to 60 inches—yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 7.5 inches

Effective rooting depth: 30 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Packham soils on fan terraces (10 percent)
- Bartonflat soils on fan terraces (5 percent)

- Zer soils on fan terraces (5 percent)
- Blackfoot soils on flood plains (5 percent)

Major Uses

Irrigated hayland and cropland, rangeland

Interpretive Groups

Land capability classification: 6c, nonirrigated, and 3c, irrigated

Range site: LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

23—Breitenbach gravelly loam, 4 to 8 percent slopes

Composition

*Breitenbach and similar soils—*75 percent

*Dissimilar soils—*25 percent

Setting

Position on landscape: Alluvial fans and stream terraces

Elevation: 3,900 to 5,000 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 40 to 43 degrees F

Frost-free season: 80 to 90 days

Characteristics of Breitenbach

Typical profile:

0 to 5 inches—brown gravelly loam

5 to 18 inches—brown very gravelly loam

18 to 40 inches—brown very gravelly sandy loam and extremely gravelly sandy loam

40 to 60 inches—yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 7.5 inches

Effective rooting depth: 30 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Packham soils on fan terraces (5 percent)
- Shenon soils on fan terraces (5 percent)
- Whiteknob soils on fan terraces (5 percent)
- Zer soils on fan terraces (5 percent)
- Perreau soils on hills (5 percent)

Major Uses

Irrigated hayland and cropland, rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated, and 3e, irrigated

Range site: LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

24—Breitenbach gravelly loam, 8 to 12 percent slopes

Composition

Breitenbach and similar soils—75 percent

Dissimilar soils—25 percent

Setting

Position on landscape: Alluvial fans and stream terraces

Elevation: 4,200 to 5,000 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 40 to 43 degrees F

Frost-free season: 80 to 90 days

Characteristics of Breitenbach

Typical profile:

0 to 5 inches—brown gravelly loam

5 to 18 inches—brown very gravelly loam

18 to 40 inches—brown very gravelly sandy loam and extremely gravelly sandy loam

40 to 60 inches—yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 7.5 inches

Effective rooting depth: 30 to 40 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Packham soils on fan terraces (5 percent)
- Shenon soils on fan terraces (5 percent)
- Whiteknob soils on fan terraces (5 percent)
- Zer soils on fan terraces (5 percent)
- Perreau soils on hills (5 percent)

Major Uses

Irrigated hayland and cropland, rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated, and 3e, irrigated

Range site: LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

25—Bunting gravelly loam, 0 to 2 percent slopes

Composition

Bunting and similar soils—95 percent

Dissimilar soils—5 percent

Setting

Position on landscape: Stream terraces

Elevation: 6,000 to 6,600 feet

Average annual precipitation: 13 to 15 inches

Average annual air temperature: 41 to 45 degrees F

Frost-free season: 50 to 70 days

Characteristics of Bunting

Typical profile:

0 to 10 inches—brown and yellowish brown gravelly loam

10 to 18 inches—brown gravelly loam

18 to 22 inches—brown very gravelly sandy loam

22 to 60 inches—brown extremely gravelly loamy coarse sand and extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 14 to 24 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Moffspring soils in drainageways (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 4c, nonirrigated

Range site: LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

26—Bunting gravelly loam, cool, 0 to 2 percent slopes

Composition

*Bunting and similar soils—*95 percent

*Dissimilar soils—*5 percent

Setting

Position on landscape: Stream terraces

Elevation: 6,000 to 6,600 feet

Average annual precipitation: 13 to 15 inches

Average annual air temperature: 41 to 45 degrees F

Frost-free season: 50 to 70 days

Characteristics of Bunting

Typical profile:

0 to 4 inches—brown gravelly loam

4 to 15 inches—brown gravelly loam

15 to 22 inches—yellowish brown very gravelly sandy loam

22 to 60 inches—yellowish brown and pale brown extremely gravelly loamy coarse sand and extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 14 to 24 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Moffspring soils in drainageways on stream terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 4c, nonirrigated

Range site: SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass

27—Bunting-Moffspring complex, 0 to 2 percent slopes

Composition

*Bunting and similar soils—*70 percent

*Moffspring and similar soils—*25 percent

*Dissimilar soils—*5 percent

Setting

Position on landscape: Bunting—convex areas of stream terraces; Moffspring—concave areas of stream terraces

Elevation: 6,000 to 6,600 feet

Average annual precipitation: 12 to 15 inches

Average annual air temperature: 41 to 45 degrees F

Frost-free season: 50 to 70 days

Characteristics of Bunting

Typical profile:

0 to 10 inches—brown gravelly loam

10 to 18 inches—brown very gravelly loam

18 to 22 inches—brown very gravelly sandy loam

22 to 60 inches—brown and light brownish gray, stratified very gravelly loamy sand and extremely cobbly coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 14 to 24 inches

Runoff: Slow

Hazard of water erosion: Slight

Hazard of wind erosion: Slight

Characteristics of Moffspring

Typical profile:

0 to 3 inches—very dark grayish brown loam

3 to 7 inches—dark brown loam

7 to 15 inches—brown clay loam

15 to 19 inches—dark grayish brown loam

19 to 22 inches—dark brown gravelly sandy loam

22 to 60 inches—stratified, brown and dark brown extremely gravelly coarse sand to very gravelly loamy sand

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderately slow in the upper part and very rapid in the lower part

Available water capacity: 5 to 6 inches

Effective rooting depth: 20 to 35 inches

Runoff: Slow

Hazard of water erosion: Slight

Hazard of wind erosion: Slight

Depth to high water table: 36 to 72 inches in April through June

Dissimilar Soils

- Moffsring soils in drainageways (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Bunting and Moffsring—4c, nonirrigated

Range site: Bunting—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Moffsring—ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass

28—Bursteadt-Tohobit complex, 0 to 3 percent slopes

Composition

Bursteadt and similar soils—50 percent

Tohobit and similar soils—35 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Bursteadt—linear to convex areas of flood plains; Tohobit—linear to concave areas of flood plains

Elevation: 3,700 to 5,000 feet

Average annual precipitation: 8 to 14 inches

Average annual air temperature: 38 to 45 degrees F

Frost-free season: 60 to 90 days

Characteristics of Bursteadt

Typical profile:

0 to 5 inches—grayish brown very fine sandy loam

5 to 12 inches—grayish brown sandy loam

12 to 20 inches—grayish brown and brown very fine sandy loam and fine sandy loam

20 to 31 inches—brown fine sandy loam and sandy loam

31 to 60 inches—multicolored, stratified extremely cobbly coarse sand to loamy coarse sand

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 4.5 to 6.5 inches

Effective rooting depth: 25 to 35 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 24 to 36 inches in March through October

Periods of flooding: Frequency—occasional; duration—brief; months—April through June

Characteristics of Tohobit

Typical profile:

0 to 9 inches—dark grayish brown silt loam

9 to 21 inches—grayish brown and brown silt loam and fine sandy loam

21 to 60 inches—multicolored, stratified extremely gravelly coarse sand to loamy fine sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 9.5 inches

Effective rooting depth: 14 to 24 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 36 inches in March through October

Periods of flooding: Frequency—occasional; duration—brief; months—April through June

Dissimilar Soils

- Cowbone soils in depressions on flood plains (10 percent)
- Bromaglin soils on flood plains (5 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: Burstead—3w, nonirrigated and irrigated; Tohobit—4w, nonirrigated and irrigated

Range site: Burstead—ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass; Tohobit—RIVERBOTTOM 10 TO 16 INCH PZ, black cottonwood/western wheatgrass

29—Busterback-Wiggleton complex, 2 to 6 percent slopes

Composition

Busterback and similar soils—60 percent

Wiggleton and similar soils—20 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Busterback—linear to concave areas of stream terraces and outwash fans; Wiggleton—convex areas of stream terraces and outwash fans

Elevation: 6,300 to 7,300 feet

Average annual precipitation: 16 to 19 inches

Average annual air temperature: 33 to 37 degrees F

Frost-free season: 5 to 30 days

Characteristics of Busterback

Typical profile:

- 0 to 4 inches—dark grayish brown very gravelly loam
- 4 to 13 inches—brown very gravelly loam
- 13 to 30 inches—brown and dark grayish brown very gravelly sandy loam and extremely gravelly sandy loam
- 30 to 60 inches—dark grayish brown and dark gray extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 20 to 30 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Wiggleton

Typical profile:

- 0 to 10 inches—dark grayish brown and brown very gravelly loam
- 10 to 18 inches—yellowish brown very gravelly coarse sandy loam
- 18 to 60 inches—multicolored extremely gravelly loamy coarse sand and extremely gravelly sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2 to 3 inches

Effective rooting depth: 10 to 18 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Castlepeak soils in convex areas on outwash fans (10 percent)
- A very deep, well drained soil that is very gravelly sandy loam and in scarps on outwash fans (5 percent)
- A very deep, somewhat poorly drained soil that is gravelly sandy loam over extremely gravelly sandy loam and in concave areas on stream terraces (5 percent)

Major Uses

Rangeland, irrigated pastureland

Interpretive Groups

Land capability classification: Busterback and Wiggleton—6s, nonirrigated and irrigated

Range site: Busterback and Wiggleton—GRAVELLY LOAM 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

30—Calcids-Badland-Xerolls complex, rolling to very steep

Composition

Calcids and similar soils—35 percent

Badland—25 percent

Xerolls and similar soils—20 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Calcids—convex areas of terraces; Badland—toeslopes of terraces; Xerolls—linear to concave areas on side slopes of terraces

Elevation: 3,900 to 5,400 feet

Average annual precipitation: 7 to 12 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 75 to 100 days

Characteristics of Calcids

Slope: 25 to 50 percent

Representative profile:

0 to 3 inches—brown very cobbly loam

3 to 7 inches—brown very gravelly loam

7 to 25 inches—yellowish brown extremely cobbly sandy loam

25 to 60 inches—pale brown extremely gravelly coarse sandy loam

Depth class: Moderately deep to bedrock to very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.0 to 5.5 inches

Effective rooting depth: 20 to 60 inches or more

Runoff: Medium or rapid

Hazard of water erosion: Moderate or severe

Characteristics of Badland

Description: Fragile areas composed mainly of bentonite clay

Position on landscape: Toeslopes of dissected terraces that have slopes of 10 to 35 percent, in areas where intermittent streams have eroded the soft bentonite clay

Vegetation: Little, if any

Characteristics of Xerolls

Slope: 25 to 50 percent

Representative profile:

0 to 5 inches—dark brown silt loam

5 to 16 inches—dark brown and light yellowish brown gravelly silt loam

16 to 28 inches—very pale brown clay

28 to 37 inches—very pale brown very gravelly sandy loam

37 to 60 inches—very pale brown and pale brown clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very slow in the lower part

Available water capacity: 4.5 to 9.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium or rapid

Hazard of water erosion: Moderate or severe

Dissimilar Soils

- Eroded Millhi soils on higher terraces (10 percent)
- A very deep, well drained, saline soil that is silt loam over silty clay and on lower terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Calcids—7e, nonirrigated; Badland—8; Xerolls—6e, nonirrigated

Range site: Calcids—STEEP LIMESTONE 13 TO 16 INCH PZ, curl-leaf mountain mahogany/bluebunch wheatgrass; Zerolls—not assigned

31—Calcids-Rubble land-Rock outcrop complex, 50 to 80 percent slopes

Composition

Calcids and similar soils—45 percent

Rubble land—25 percent

Rock outcrop—15 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Calcids—south- and west-facing slopes of mountains;

Rubble land and Rock outcrop—all aspects of mountains

Elevation: 3,900 to 7,000 feet

Average annual precipitation: 7 to 12 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free season: 70 to 90 days

Characteristics of Calcids

Representative profile:

0 to 2 inches—brown very cobbly loam

2 to 16 inches—brown and pale brown very gravelly loam

16 to 37 inches—very pale brown extremely gravelly loam

37 to 60 inches—pinkish gray extremely gravelly coarse sandy loam

Depth class: Moderately deep to bedrock to very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2 to 5 inches

Effective rooting depth: 20 to 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Description of Rubble Land

Areas of angular cobbles, stones, and boulders at the base of rock outcroppings, cliffs, mountains, or very steep rocky areas

Description of Rock Outcrop

Cliffs, outcroppings, and other exposed areas of barren rock of varying geologic origin

Dissimilar Soils

- A very deep, well drained soil that is dark-colored gravelly loam and at the base of scree slopes (10 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly loam and in drainageways on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Calcids—7e, nonirrigated; Rubble land and Rock outcrop—8

Range site: Calcids—STEEP LIMESTONE 13 TO 16 INCH PZ, curl-leaf mountain mahogany/bluebunch wheatgrass

32—Castlepeak-Yankeefork complex, 2 to 6 percent slopes**Composition**

Castlepeak and similar soils—50 percent

Yankeefork and similar soils—40 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Castlepeak—intermound areas of north- and northeast-facing slopes of fan terraces, stream terraces, and outwash fans; Yankeefork—periglacial mounds and concave areas of north- and northeast-facing slopes of fan terraces, stream terraces, and outwash fans

Elevation: 6,300 to 7,500 feet

Average annual precipitation: 12 to 19 inches

Average annual air temperature: 33 to 38 degrees F

Frost-free season: 5 to 30 days

Characteristics of Castlepeak

Typical profile:

0 to 2 inches—brown very gravelly sandy loam

2 to 7 inches—yellowish brown very gravelly loamy sand

7 to 60 inches—yellowish brown, light yellowish brown, and light gray extremely gravelly loamy sand and extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Excessively drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 1 to 3 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Yankeefork

Typical profile:

0 to 2 inches—brown gravelly sandy loam

2 to 28 inches—yellowish brown and light yellowish brown gravelly sandy loam and very gravelly sandy loam

28 to 60 inches—very pale brown extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 24 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly loam and in concave areas on stream terraces (5 percent)
- A very deep, somewhat excessively drained soil that is very cobbly loam and on higher uplands (5 percent)

Major Uses

Irrigated pastureland, homesites, rangeland

Interpretive Groups

Land capability classification: Castlepeak—7s, nonirrigated, and 6s, irrigated;

Yankeefork—6s, nonirrigated and irrigated

Range site: Castlepeak—SHALLOW GRAVELLY 13 TO 16 INCH PZ, low sagebrush/Idaho fescue; Yankeefork—GRAVELLY LOAM 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

33—Chamberlain gravelly loam, 2 to 8 percent slopes

Composition

Chamberlain and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,400 to 7,500 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 30 to 60 days

Characteristics of Chamberlain

Typical profile:

0 to 2 inches—dark grayish brown gravelly loam

2 to 13 inches—brown gravelly clay loam and very gravelly clay loam

13 to 26 inches—very pale brown very gravelly loam

26 to 34 inches—very pale brown very gravelly coarse sandy loam

34 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow in the upper part and rapid in the lower part

Available water capacity: 4.0 to 6.5 inches

Effective rooting depth: 22 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, well drained soil that is very cobbly loam and in convex areas on fan terraces (5 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly clay over very gravelly loam and on outwash fans (5 percent)
- A very deep, well drained soil that is very stony loam and in draws on fan terraces (5 percent)
- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly clay loam over very gravelly loam and on mounds on fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups*Land capability classification:* 6s, nonirrigated, and 6e, irrigated*Range site:* LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue**34—Coalkiln-Zeelnot association, 35 to 70 percent slopes****Composition***Coalkiln and similar soils—*70 percent*Zeelnot and similar soils—*20 percent*Dissimilar soils—*10 percent**Coalkiln****Setting***Position on landscape:* Mountains*Elevation:* 7,000 to 9,000 feet*Average annual precipitation:* 20 to 25 inches*Average annual air temperature:* 36 to 40 degrees F*Frost-free season:* 20 to 40 days**Soil characteristics***Typical profile:*

3 inches to 2—slightly decomposed leaves, needles, and twigs

2 inches to 0—highly decomposed organic material

0 to 3 inches—dark grayish brown stony loam

3 to 12 inches—grayish brown gravelly loam

12 to 34 inches—brown and pale brown very gravelly loam

34 to 60 inches—light yellowish brown extremely gravelly loam

Depth class: Very deep*Drainage class:* Well drained*Permeability:* Moderate*Available water capacity:* 4.0 to 5.5 inches*Effective rooting depth:* 2 to 15 inches*Runoff:* Rapid*Hazard of water erosion:* Severe**Zeelnot****Setting***Position on landscape:* Mountainsides*Elevation:* 7,000 to 9,000 feet*Average annual precipitation:* 13 to 16 inches*Average annual air temperature:* 35 to 39 degrees F*Frost-free season:* 10 to 40 days**Soil characteristics***Typical profile:*

0 to 10 inches—dark brown gravelly loam

10 to 24 inches—yellowish brown and light yellowish brown very gravelly loam

24 to 32 inches—light yellowish brown extremely gravelly loam

32 to 60 inches—pale yellow extremely cobbly silty clay loam and extremely cobbly clay loam

Depth class: Very deep

Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 3.5 to 4.5 inches
Effective rooting depth: 2 to 15 inches
Runoff: Rapid
Hazard of water erosion: Severe

Dissimilar Soils

- Skibo soils in convex areas on south-facing slopes (5 percent)
- A very deep, well drained soil that is dark-colored very gravelly loam and in convex areas on north-facing slopes (5 percent)

Major Uses

Coalkiln—woodland; Zeelnot—rangeland

Woodland

Coalkiln

Forest habitat type: Douglas fir/pinegrass
Average site index for Douglas fir (100-year site curve): 40
Estimated average annual production of Douglas fir at the culmination of the mean annual increment (CMAI): 44 cubic feet per acre

Interpretive Groups

Land capability classification: Coalkiln and Zeelnot—7e, nonirrigated
Range site: Zeelnot—LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

35—Copperbasin-Redfish complex, 0 to 3 percent slopes

Composition

*Copperbasin and similar soils—*55 percent
*Redfish and similar soils—*20 percent
*Dissimilar soils—*25 percent

Setting

Position on landscape: Copperbasin—convex areas on flood plains and stream terraces; Redfish—concave areas on flood plains and stream terraces
Elevation: 4,500 to 6,500 feet
Average annual precipitation: 10 to 14 inches
Average annual air temperature: 36 to 40 degrees F
Frost-free season: 30 to 60 days

Characteristics of Copperbasin

Typical profile:

- 0 to 10 inches—grayish brown gravelly fine sandy loam
- 10 to 27 inches—multicolored extremely gravelly loamy fine sand and extremely gravelly loamy sand
- 27 to 60 inches—multicolored extremely cobbly coarse sand and extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 42 inches in March through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Redfish

Typical profile:

3 inches to 0—moderately decomposed grass and roots

0 to 4 inches—brown gravelly sandy loam

4 to 22 inches—brown gravelly fine sandy loam

22 to 60 inches—multicolored extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2.0 to 3.5 inches

Effective rooting depth: 10 to 22 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in March through August

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Dissimilar Soils

- Biglost and Busterback soils in concave areas on flood plains and stream terraces (10 percent)
- Wiggleton soils in convex areas on flood plains and stream terraces (5 percent)
- A very deep, poorly drained soil that is silt loam over very gravelly loamy sand and on flood plains and stream terraces (10 percent)

Major Uses

Rangeland, irrigated pastureland

Interpretive Groups

Land capability classification: Copperbasin—6c, nonirrigated and irrigated; Redfish—5w, nonirrigated and irrigated

Range site: Copperbasin—MOUNTAIN WET MEADOW; Redfish—RIPARIAN, willow/sedge

36—Copperbasin, cool-Redfish complex, 1 to 4 percent slopes

Composition

Copperbasin and similar soils—45 percent

Redfish and similar soils—35 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Copperbasin—convex areas on flood plains and stream terraces; Redfish—concave areas on flood plains and stream terraces

Elevation: 6,500 to 7,400 feet

Average annual precipitation: 14 to 18 inches
Average annual air temperature: 34 to 36 degrees F
Frost-free season: 5 to 30 days

Characteristics of Copperbasin

Typical profile:

0 to 5 inches—very dark brown very gravelly fine sandy loam
 5 to 25 inches—dark grayish brown and yellowish brown extremely gravelly loamy sand
 25 to 60 inches—strong brown and yellowish brown extremely cobbly loamy sand and extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 42 inches in March through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Redfish

Typical profile:

3 inches to 0—moderately decomposed grass and roots
 0 to 5 inches—grayish brown gravelly sandy loam
 5 to 10 inches—grayish brown very gravelly sandy loam
 10 to 60 inches—grayish brown extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2.0 to 3.5 inches

Effective rooting depth: 10 to 22 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in March through August

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Dissimilar Soils

- A very deep, poorly drained soil that is light-colored very gravelly sandy loam and on flood plains (10 percent)
- A very deep, poorly drained soil that is very gravelly fine sandy loam over extremely gravelly sandy loam and in drainageways on stream terraces (10 percent)

Major Uses

Rangeland, irrigated pastureland

Interpretive Groups

Land capability classification: Copperbasin—6c, nonirrigated and irrigated;
 Redfish—5w, nonirrigated and irrigated

Range site: Copperbasin—RIVERBOTTOM 10 TO 16 inch PZ, black cottonwood/
 western wheatgrass; Redfish—RIPARIAN, willow/sedge

37—Cowbone-Tohobit complex, 0 to 3 percent slopes

Composition

Cowbone and similar soils—45 percent

Tohobit and similar soils—35 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Flood plains

Elevation: 3,700 to 5,000 feet

Average annual precipitation: 8 to 14 inches

Average annual air temperature: 42 to 47 degrees F

Frost-free season: 60 to 90 days

Characteristics of Cowbone

Typical profile:

0.5 inch to 0—moderately decomposed leaves and twigs

0 to 16 inches—grayish brown silt loam

16 to 24 inches—light brownish gray silt loam

24 to 54 inches—light brownish gray fine sandy loam and very fine sandy loam

54 to 60 inches—light olive gray very cobbly loamy very fine sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 8.5 to 10.5 inches

Effective rooting depth: 45 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in March through July

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Characteristics of Tohobit

Typical profile:

0 to 9 inches—dark grayish brown silt loam

9 to 21 inches—grayish brown and brown silt loam and fine sandy loam

21 to 55 inches—multicolored extremely gravelly coarse sand

55 to 60 inches—light brownish gray loamy fine sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 9.5 inches

Effective rooting depth: 12 to 24 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 36 inches in March through October

Periods of flooding: Frequency—occasional; duration—brief; months—April through June

Dissimilar Soils

- Bursteadt soils on stream terraces (5 percent)
- Smout soils in convex areas on flood plains (5 percent)
- A very deep, somewhat poorly drained soil that is silt loam over loam and on flood plains (10 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: Cowbone—5w, nonirrigated and irrigated; Tohobit—4w, nonirrigated and irrigated

Range site: Cowbone and Tohobit—RIVERBOTTOM 10 TO 16 INCH PZ, black cottonwood/western wheatgrass

38—Cronks-Challis association, 20 to 50 percent slopes**Composition**

Cronks and similar soils—55 percent

Challis and similar soils—35 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Cronks—south-facing slopes of mountains and hills; Challis—north-facing slopes of mountains and hills

Elevation: 4,800 to 6,500 feet

Average annual precipitation: 11 to 14 inches

Average annual air temperature: 37 to 44 degrees F

Frost-free season: 60 to 90 days

Characteristics of Cronks*Typical profile:*

0 to 10 inches—brown very cobbly loam

10 to 35 inches—brown very cobbly clay

35 to 55 inches—pale brown very cobbly silt loam

55 to 70 inches—pale brown very cobbly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Very rapid

Hazard of water erosion: Severe

Shrink-swell potential: High

Characteristics of Challis*Typical profile:*

0 to 4 inches—brown gravelly clay loam

4 to 23 inches—brown very gravelly clay

23 to 60 inches—light brownish gray very gravelly loam and extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 4.0 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Soils

- A very deep, well drained soil that is very gravelly loam and on north- and east-facing mountainsides (5 percent)
- A very deep, well drained soil that is red very cobbly clay loam over very cobbly clay and on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Cronks and Challis—6e, nonirrigated

Range site: Cronks—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Challis—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

39—Cronks-Venum association, 6 to 20 percent slopes

Composition

Cronks and similar soils—60 percent

Venum and similar soils—30 percent

Dissimilar soils—10 percent

Cronks

Setting

Position on landscape: Mountains and hills

Elevation: 5,000 to 6,000 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 40 to 44 degrees F

Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

0 to 10 inches—brown very cobbly loam

10 to 35 inches—brown very cobbly clay

35 to 55 inches—pale brown very cobbly silt loam

55 to 70 inches—pale brown very cobbly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Venum

Setting

Position on landscape: Mountains and hills

Elevation: 5,000 to 6,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 44 degrees F

Frost-free season: 60 to 90 days

Soil characteristics*Typical profile:*

0 to 2 inches—pale brown very cobbly loam

2 to 26 inches—yellowish brown and light yellowish brown very gravelly clay and very gravelly clay loam

26 to 60 inches—light yellowish brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 5.0 to 7.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is very gravelly loam and in drainageways on mountains and hills (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Cronks—7s, nonirrigated; Venum—6e, nonirrigated

Range site: Cronks and Venum—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

40—Cryolls-Rubble land complex, 20 to 50 percent slopes***Composition***

Cryolls and similar soils—65 percent

Rubble land—20 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Mountains

Elevation: 8,800 to 10,390 feet

Average annual precipitation: 14 to 30 inches

Average annual air temperature: 33 to 39 degrees F

Frost-free season: 5 to 30 days

Characteristics of Cryolls*Representative profile:*

0 to 3 inches—dark grayish brown stony loam

3 to 60 inches—yellowish brown and brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow to rapid

Available water capacity: 1 to 6 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Rubble Land

Areas of angular cobbles, stones, and boulders at the base of rock outcroppings, cliffs, mountains, and very steep rocky slopes

Dissimilar Areas

- A very deep, well drained soil that is light-colored gravelly loam and on mountains (10 percent)
- Rock outcrop on mountains (5 percent)

Major Uses

Recreation, rangeland

Interpretive Groups

Land capability classification: Cryolls—7e, nonirrigated; Rubble land—8

Range site: Cryolls—STEEP LIMESTONE 16 TO 22 INCH PZ, curl-leaf mountain mahogany/Idaho fescue (mountain big sagebrush with scattered whitebark pine and limber pine below an elevation of 9,400 feet)

41—Cryolls-Rubble land-Rock outcrop complex, 50 to 80 percent slopes

Composition

Cryolls and similar soils—50 percent

Rubble land—20 percent

Rock outcrop—15 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Mountains

Elevation: 6,000 to 9,000 feet

Average annual precipitation: 13 to 20 inches

Average annual air temperature: 35 to 39 degrees F

Frost-free season: 20 to 50 days

Characteristics of Cryolls

Representative profile:

0 to 3 inches—dark brown stony loam

3 to 12 inches—brown extremely gravelly loam

12 to 33 inches—brown extremely gravelly loam

33 to 43 inches—indurated bedrock

Depth class: Moderately deep to bedrock

Drainage class: Well drained

Permeability: Moderately slow to rapid

Available water capacity: 1 to 6 inches

Effective rooting depth: 20 to 40 inches

Runoff: Very rapid

Hazard of water erosion: Severe

Description of Rubble Land

Areas of angular cobbles, stones, and boulders at the base of rock outcroppings, cliffs, mountains, and very steep rocky slopes

Description of Rock Outcrop

Cliffs, outcroppings, and other exposed areas of barren rock of varying geologic origin

Dissimilar Soils

- A deep, well drained soil that is very gravelly loam and on south- and west-facing mountainsides at an elevation of less than 7,000 feet (5 percent)
- A very deep, very stony soil that is loam over very cobbly clay loam and on north- and east-facing mountainsides at an elevation of more than 8,500 feet (5 percent)
- A very deep, well drained soil that is very gravelly loam and in drainageways on mountainsides (5 percent)

Major Uses

Wildlife habitat, recreation, rangeland

Interpretive Groups

Land capability classification: Cryolls—7e, nonirrigated; Rubble land and Rock outcrop—8

Range site: Cryolls—STEEP LIMESTONE 16 TO 22 INCH PZ, curl-leaf mountain mahogany/Idaho fescue (scattered whitebark pine, limber pine, and subalpine fir on north-facing slopes)

42—Cryepts-Rubble land-Rock outcrop complex, 50 to 80 percent slopes

Composition

Cryepts and similar soils—50 percent

Rubble land—20 percent

Rock outcrop—15 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Mountains

Elevation: 7,500 to 10,000 feet

Average annual precipitation: 22 to 30 inches

Average annual air temperature: 35 to 39 degrees F

Frost-free season: 5 to 30 days

Characteristics of Cryepts

Representative profile:

0 to 3 inches—very dark gray very stony loam

3 to 8 inches—pale brown very gravelly loam

8 to 60 inches—light yellowish brown extremely gravelly sandy loam

Depth class: Moderately deep to very deep

Drainage class: Well drained

Permeability: Moderate or moderately rapid

Available water capacity: 2 to 6 inches

Effective rooting depth: 60 inches or more

Runoff: Very rapid

Hazard of water erosion: Severe

Characteristics of Rubble Land

Areas of angular cobbles, stones, and boulders at the base of rock outcroppings, cliffs, mountains, and very steep rocky slopes

Characteristics of Rock Outcrop

Cliffs, outcroppings, and other exposed areas of barren rock of varying geologic origin

Dissimilar Soils

- A well drained soil that is shallow to bedrock, very gravelly loam, and on ridgetops (5 percent)
- A very deep, well drained soil that is dark-colored very stony loam and on toeslopes (10 percent)

Major Uses

Wildlife habitat, recreation, woodland

Woodland

Forest habitat type: Whitebark pine/elk sedge

Site index and production: Not estimated because of variability of unit

Interpretive Groups

Land capability classification: Cryepts—7e, nonirrigated; Rubble land and Rock outcrop—8

43—Custco stony loam, 8 to 15 percent slopes

Composition

*Custco and similar soils—*80 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Mountains, hills, and fan terraces

Elevation: 4,300 to 6,500 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 37 to 43 degrees F

Frost-free season: 60 to 90 days

Characteristics of Custco

Typical profile:

0 to 10 inches—dark brown stony loam

10 to 21 inches—brown very gravelly loam

21 to 60 inches—yellowish brown and brownish yellow very gravelly loam and extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 3.0 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Soils

- Dacont soils in concave areas on fan terraces (5 percent)

- A very deep, somewhat poorly drained soil that is dark-colored gravelly loam over very gravelly loam and in concave areas on hills (10 percent)
- A very deep, somewhat excessively drained soil that is very gravelly sandy loam and on lower fan terraces (5 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated, and 4e, irrigated

Range site: NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

44—Dacont-Custco association, 20 to 50 percent slopes

Composition

Dacont and similar soils—50 percent

Custco and similar soils—35 percent

Dissimilar soils—15 percent

Dacont

Setting

Position on landscape: South- and west-facing mountain slopes

Elevation: 5,000 to 6,300 feet

Average annual precipitation: 11 to 12 inches

Average annual air temperature: 40 to 43 degrees F

Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

0 to 4 inches—brown very cobbly loam

4 to 18 inches—brown and yellowish brown very gravelly loam

18 to 60 inches—yellowish brown and light yellowish brown extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Custco

Setting

Position on landscape: North- and east-facing mountain slopes

Elevation: 5,000 to 6,300 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 37 to 43 degrees F

Frost-free season: 60 to 90 days

Soil characteristics

Typical profile:

0 to 4 inches—dark grayish brown gravelly loam

4 to 17 inches—brown very gravelly loam

17 to 60 inches—pale brown extremely gravelly sandy loam and extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 6.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A well drained soil that is shallow to bedrock, very gravelly loam, and on convex ridges and near areas of Rock outcrop (5 percent)
- A well drained soil that is moderately deep to bedrock, very gravelly loam, and on ridgetops (5 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly clay loam and in drainageways on fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Dacont and Custco—6e, nonirrigated

Range site: Dacont—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Custco—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

45—Dacont-Resoot-Nielsen association, 6 to 40 percent slopes

Composition

Dacont and similar soils—35 percent

Resoot and similar soils—30 percent

Nielsen and similar soils—25 percent

Dissimilar areas—10 percent

Dacont

Setting

Position on landscape: South- and west-facing mountain slopes

Slope: 6 to 40 percent

Elevation: 5,500 to 6,500 feet

Average annual precipitation: 11 to 12 inches

Average annual air temperature: 39 to 43 degrees F

Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

0 to 3 inches—brown very gravelly loam

3 to 28 inches—yellowish brown very gravelly loam

28 to 41 inches—brown extremely gravelly loam

41 to 60 inches—brown and pale brown extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 5 inches

Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Resoot

Setting

Position on landscape: North- and east-facing mountain slopes
Slope: 6 to 40 percent
Elevation: 5,500 to 6,500 feet
Average annual precipitation: 13 to 15 inches
Average annual air temperature: 36 to 38 degrees F
Frost-free season: 40 to 50 days

Soil characteristics

Typical profile:
 0 to 11 inches—dark grayish brown gravelly loam
 11 to 60 inches—yellowish brown, light yellowish brown, and very pale brown very gravelly clay loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Slow
Available water capacity: 3.5 to 7.5 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate
Shrink-swell potential: High

Nielsen

Setting

Position on landscape: North- and east-facing ridges
Slope: 6 to 25 percent
Elevation: 5,500 to 6,500 feet
Average annual precipitation: 16 to 20 inches
Average annual air temperature: 38 to 41 degrees F
Frost-free season: 40 to 60 days

Soil characteristics

Typical profile:
 0 to 3 inches—brown cobbly loam
 3 to 15 inches—dark grayish brown very gravelly clay loam and extremely gravelly clay loam
 15 to 25 inches—indurated andesite
Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 1.0 to 2.5 inches
Effective rooting depth: 10 to 20 inches
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Areas

- A very deep, well drained soil that is gravelly loam and in drainageways on fan terraces (5 percent)
- A very deep, well drained soil that is cobbly loam over very gravelly loam and on ridgetops (2 percent)

- A very deep, well drained soil that is dark-colored gravelly loam and in concave areas on mountainsides (1 percent)
- Rock outcrop on mountains (1 percent)
- Rubble land on mountains (1 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Dacont and Resoot—6e, nonirrigated; Nielsen—7e, nonirrigated

Range site: Dacont—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Resoot and Nielsen—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

46—Dacont-Zeebar association, 20 to 50 percent slopes

Composition

Dacont and similar soils—40 percent

Zeebar and similar soils—40 percent

Dissimilar soils—20 percent

Dacont

Setting

Position on landscape: South- and west-facing mountain slopes

Elevation: 5,300 to 6,600 feet

Average annual precipitation: 11 to 12 inches

Average annual air temperature: 39 to 43 degrees F

Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

0 to 2 inches—brown very gravelly loam

2 to 20 inches—brown and light yellowish brown very gravelly clay loam

20 to 60 inches—light yellowish brown and very pale brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Zeebar

Setting

Position on landscape: North- and east-facing mountain slopes

Elevation: 5,300 to 6,600 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 37 to 38 degrees F

Frost-free season: 30 to 60 days

Soil characteristics*Typical profile:*

- 0 to 3 inches—brown gravelly loam
- 3 to 13 inches—brown very gravelly loam
- 13 to 19 inches—brown very gravelly clay loam
- 19 to 29 inches—pale brown extremely gravelly clay loam
- 29 to 60 inches—pale brown and very pale brown extremely gravelly loam

Depth class: Very deep*Drainage class:* Well drained*Permeability:* Moderately slow*Available water capacity:* 2.5 to 3.5 inches*Effective rooting depth:* 60 inches or more*Runoff:* Medium*Hazard of water erosion:* Moderate***Dissimilar Soils***

- A well drained soil that is shallow to bedrock, light-colored very gravelly loam, and on ridges (10 percent)
- A well drained soil that is shallow to bedrock, dark-colored gravelly loam over extremely gravelly sandy loam, and on ridges (10 percent)

Major Use

Rangeland

Interpretive Groups*Land capability classification:* Dacont and Zeebar—6e, nonirrigated*Range site:* Dacont—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Zeebar—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue**47—Darlington-Lesbut complex, 1 to 4 percent slopes*****Composition****Darlington and similar soils*—55 percent*Lesbut and similar soils*—25 percent*Dissimilar soils*—20 percent***Setting****Position on landscape:* Darlington—concave areas on stream terraces and fan terraces; Lesbut—convex areas on stream terraces and fan terraces*Elevation:* 5,200 to 5,600 feet*Average annual precipitation:* 11 to 13 inches*Average annual air temperature:* 38 to 42 degrees F*Frost-free season:* 65 to 90 days***Characteristics of Darlington****Typical profile:*

- 0 to 7 inches—grayish brown very gravelly loam
- 7 to 33 inches—brown very gravelly loam and gravelly loam
- 33 to 60 inches—pale brown and dark grayish brown extremely gravelly loamy sand

Depth class: Very deep*Drainage class:* Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 5.5 inches

Effective rooting depth: 25 to 35 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Lesbut

Typical profile:

0 to 4 inches—brown gravelly loam

4 to 18 inches—brown gravelly loam, very gravelly loam, and extremely gravelly sandy loam

18 to 60 inches—multicolored, stratified extremely gravelly loamy sand to extremely cobbly coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Breitenbach soils on stream terraces (5 percent)
- Borco soils on old stream channels (5 percent)
- Mooretown soils on low terraces and in old stream channels (5 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly clay loam and on stream terraces (5 percent)

Major Uses

Irrigated cropland, hayland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: Darlington—6c, nonirrigated, and 4s, irrigated; Lesbut—6s, nonirrigated, and 4s, irrigated

Range site: Darlington—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Lesbut—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

48—Dawtonia gravelly loam, 4 to 8 percent slopes

Composition

Dawtonia and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Fan terraces

Elevation: 5,200 to 6,000 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 40 to 42 degrees F

Frost-free season: 70 to 90 days

Characteristics of Dawtonia

Typical profile:

0 to 4 inches—brown very gravelly loam

4 to 12 inches—yellowish brown very gravelly loam

12 to 24 inches—pale brown very gravelly loam

24 to 60 inches—pale brown and light yellowish brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Pedoli soils in concave areas on fan terraces (10 percent)
- A very deep, somewhat excessively drained soil that is very gravelly loam and on upper fan terraces and alluvial fans (10 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated, and 3e, irrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

49—Dawtonia-Dawtonia, cold complex, 5 to 25 percent slopes

Composition

*Dawtonia and similar soils—*75 percent

*Dawtonia, cold, and similar soils—*20 percent

*Dissimilar soil—*5 percent

Setting

Position on landscape: Dawtonia—sides and protected areas on dissected fan terraces; Dawtonia, cold—ridgetops on dissected fan terraces and windswept areas

Elevation: 5,800 to 6,000 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 65 to 80 days

Characteristics of Dawtonia

Slope: 5 to 25 percent

Typical profile:

0 to 4 inches—brown very gravelly loam

4 to 12 inches—yellowish brown very gravelly loam

12 to 24 inches—pale brown very gravelly loam

24 to 60 inches—pale brown and light yellowish brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Dawtonia, Cold

Slope: 5 to 10 percent

Typical profile:

0 to 2 inches—pale brown very gravelly loam

2 to 9 inches—pale brown very gravelly loam

9 to 60 inches—very pale brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soil

- A very deep, well drained soil that is gravelly loam over very gravelly clay and in concave areas on fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Dawtonia—6e, nonirrigated; Dawtonia, cold—7e, nonirrigated

Range site: Dawtonia—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Dawtonia, cold—WINDSWEPT 8 TO 11 INCH PZ, silver chickensage-fringed sagewort/Sandberg bluegrass-needleandthread

50—Dawtonia, cold-Dawtonia complex, 2 to 5 percent slopes

Composition

Dawtonia, cold, and similar soils—85 percent

Dawtonia and similar soils—15 percent

Setting

Position on landscape: Dawtonia, cold—fan terraces; Dawtonia—drainageways on fan terraces

Elevation: 6,000 to 6,500 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 65 to 80 days

Characteristics of Dawtonia, Cold

Typical profile:

0 to 2 inches—pale brown very gravelly loam

2 to 9 inches—pale brown very gravelly loam

9 to 60 inches—very pale brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow
Available water capacity: 3.5 to 4.5 inches
Effective rooting depth: 60 inches or more
Runoff: Slow
Hazard of water erosion: Slight

Characteristics of Dawtonia

Typical profile:

0 to 4 inches—brown very gravelly loam
 4 to 12 inches—yellowish brown very gravelly loam
 12 to 24 inches—pale brown very gravelly loam
 24 to 60 inches—pale brown and light yellowish brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: Dawtonia, cold—7e, nonirrigated; Dawtonia—6e, nonirrigated, and 3e, irrigated

Range site: Dawtonia, cold—WINDSWEPT 8 TO 11 INCH PZ, silver chickensage-fringed sagewort/Sandberg bluegrass-needleandthread; Dawtonia—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

51—Dawtonia-Frailton complex, 20 to 50 percent slopes

Composition

*Dawtonia and similar soils—*45 percent

*Frailton and similar soils—*35 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Dawtonia—south- and west-facing slopes on hills; Frailton—north- and east-facing slopes on hills

Elevation: 4,300 to 6,000 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 41 to 43 degrees F

Frost-free season: 70 to 90 days

Characteristics of Dawtonia

Typical profile:

0 to 4 inches—brown gravelly loam
 4 to 12 inches—yellowish brown very gravelly loam
 12 to 24 inches—pale brown very gravelly loam
 24 to 60 inches—light yellowish brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Frailton

Typical profile:

0 to 2 inches—light olive brown gravelly loam

2 to 6 inches—light olive brown very gravelly loam

6 to 11 inches—dark brown extremely flaggy loam

11 to 15 inches—moderately cemented tuff

Depth class: Shallow to weathered tuff

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 0.5 to 1.0 inch

Effective rooting depth: 10 to 20 inches

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Soils

- Gradco soils in concave areas on hills (10 percent)
- A very deep, somewhat excessively drained soil that is very gravelly loam and on hill slopes of more than 50 percent (5 percent)
- A well drained soil that is moderately deep to bedrock, very gravelly loam over extremely flaggy loam, and on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Dawtonia and Frailton—7e, nonirrigated

Range site: Dawtonia—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ,

Wyoming big sagebrush/bluebunch wheatgrass; Frailton—SHALLOW

FRACTURED SOUTH 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

52—Dawtonia-Kehar-Soen complex, 10 to 30 percent slopes

Composition

Dawtonia and similar soils—35 percent

Kehar and similar soils—30 percent

Soen and similar soils—20 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Dawtonia—south- and west-facing hill slopes; Kehar—linear to convex areas on mountains; Soen—drainageways and concave areas on mountains

Elevation: 6,200 to 7,000 feet

Average annual precipitation: 10 to 13 inches

Average annual air temperature: 39 to 42 degrees F

Frost-free season: 60 to 80 days

Characteristics of Dawtonia

Slope: 10 to 30 percent

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 34 inches—yellowish brown and very pale brown very gravelly clay loam and extremely gravelly clay loam

34 to 60 inches—pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Kehar

Slope: 10 to 20 percent

Typical profile:

0 to 4 inches—brown gravelly loam

4 to 35 inches—dark yellowish brown and light yellowish brown gravelly clay loam

35 to 60 inches—very pale brown and light yellowish brown very gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 6 to 10 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Characteristics of Soen

Slope: 10 to 20 percent

Typical profile:

0 to 7 inches—grayish brown and brown gravelly loam

7 to 20 inches—brown and pale brown clay loam

20 to 60 inches—very pale brown and light gray gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 8.0 to 10.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Dissimilar Soils

- A very deep, well drained soil that is very gravelly clay and on hills (5 percent)
- A very deep, well drained soil that is gravelly loam and on hills (5 percent)
- A very deep, well drained soil that is dark-colored gravelly clay loam and in drainageways on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Dawtonia and Kehar—6e, nonirrigated; Soen—4e, nonirrigated

Range site: Dawtonia—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Kehar—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Soen—ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass

53—Dawtonia-Rock outcrop complex, 20 to 50 percent slopes

Composition

Dawtonia and similar soils—60 percent

Rock outcrop—20 percent

Dissimilar areas—20 percent

Setting

Position on landscape: Dawtonia—concave areas on ridges and mountains; Rock outcrop—convex areas on ridges and mountains

Elevation: 5,200 to 5,700 feet

Average annual precipitation: 8 to 9 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free season: 70 to 80 days

Characteristics of Dawtonia

Typical profile:

0 to 3 inches—yellowish brown very gravelly loam

3 to 10 inches—yellowish brown very gravelly loam

10 to 60 inches—light yellowish brown and yellowish brown very gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Description of Rock Outcrop

Cliffs, outcroppings, and other exposed areas of barren rock of varying geologic origin

Dissimilar Areas

- Germer soils on footslopes and fan terraces below ridges (10 percent)
- A well drained soil that is shallow to bedrock, very gravelly loam, and on ridges (5 percent)
- Rubble land on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Dawtonia—7e, nonirrigated; Rock outcrop—8

Range site: Dawtonia—FLAGSTONE 8 TO 11 INCH PZ, Wyoming big sagebrush/
salmon wildrye

54—Dawtonia-Custco association, 20 to 50 percent slopes

Composition

Dawtonia and similar soils—50 percent

Custco and similar soils—35 percent

Dissimilar areas—15 percent

Dawtonia

Setting

Position on landscape: Hills and mountains

Elevation: 4,500 to 6,000 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 39 to 43 degrees F

Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

0 to 4 inches—pale brown gravelly loam

4 to 12 inches—yellowish brown very gravelly loam

12 to 24 inches—pale brown very gravelly loam

24 to 60 inches—light yellowish brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Custco

Setting

Position on landscape: All aspects on mountainsides and north and east aspects on
hill slopes

Elevation: 4,500 to 6,000 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 37 to 43 degrees F

Frost-free season: 60 to 90 days

Soil characteristics

Typical profile:

0 to 4 inches—dark grayish brown very gravelly loam

4 to 17 inches—brown very gravelly loam

17 to 60 inches—pale brown and brown extremely gravelly sandy loam and
extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 3.0 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A well drained soil that is shallow to bedrock, very gravelly loam, and on ridgetops and near areas of Rock outcrop (5 percent)
- A very deep, well drained soil that is very gravelly loam over very gravelly clay loam and in drainageways on mountainsides and hills (5 percent)
- Rock outcrop on mountainsides and hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Dawtonia—7e, nonirrigated; Custco—6e, nonirrigated

Range site: Dawtonia—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Custco—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

55—Dawtonia-Dacont association, 20 to 50 percent slopes

Composition

*Dawtonia and similar soils—*50 percent

*Dacont and similar soils—*30 percent

*Dissimilar areas—*20 percent

Dawtonia

Setting

Position on landscape: South- and west-facing hill slopes and mountain slopes

Elevation: 5,400 to 6,000 feet

Average annual precipitation: 9 to 11 inches

Average annual air temperature: 39 to 43 degrees F

Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

0 to 4 inches—brown very gravelly loam

4 to 12 inches—yellowish brown and pale brown very gravelly loam

12 to 24 inches—pale brown very gravelly loam

24 to 60 inches—pale brown and light yellowish brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dacont

Setting

Position on landscape: North- and east-facing hill slopes and mountain slopes

Elevation: 5,400 to 6,500 feet

Average annual precipitation: 11 to 12 inches

Average annual air temperature: 39 to 43 degrees F

Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 28 inches—yellowish brown very gravelly loam

28 to 41 inches—brown extremely gravelly loam

41 to 60 inches—brown and pale brown extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A very deep, well drained soil that is very gravelly loam over very gravelly clay loam and in drainageways on mountainsides and hills (10 percent)
- Rock outcrop on mountains and hills (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Dawtonia—7e, nonirrigated; Dacont—6e, nonirrigated

Range site: Dawtonia and Dacont—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ,
Wyoming big sagebrush/bluebunch wheatgrass

56—Derwell-Whiteknob complex, 2 to 6 percent slopes

Composition

Derwell and similar soils—65 percent

Whiteknob and similar soils—15 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Derwell—linear to concave areas on fan terraces; Whiteknob—convex areas on fan terraces

Elevation: 5,000 to 5,600 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 40 to 44 degrees F

Frost-free season: 70 to 80 days

Characteristics of Derwell

Typical profile:

0 to 2 inches—pale brown gravelly very fine sandy loam

2 to 15 inches—light yellowish brown and very pale brown very fine sandy loam and sandy loam

15 to 45 inches—very pale brown and light gray very gravelly sandy loam and gravelly fine sandy loam

45 to 60 inches—multicolored extremely gravelly sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 4.5 to 6.5 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Whiteknob

Typical profile:

0 to 4 inches—pale brown gravelly loam

4 to 11 inches—pale brown very gravelly loam and very gravelly sandy loam

11 to 60 inches—light gray, very pale brown, and light yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 3.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Simeroi soils intermixed on fan terraces (10 percent)
- A very deep, somewhat excessively drained soil that is very gravelly loamy sand and on smooth fan terraces (10 percent)

Major Uses

Irrigated pastureland, hayland, and cropland, and rangeland

Interpretive Groups

Land capability classification: Derwell—6e, nonirrigated, and 4e, irrigated; Whitecloud—6s, nonirrigated, and 4s, irrigated

Range site: Derwell—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Whiteknob—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

57—Derwell-Zer-Packmo complex, 1 to 20 percent slopes

Composition

Derwell and similar soils—35 percent

Zer and similar soils—25 percent

Packmo and similar soils—20 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Derwell and Packmo—north- and east-facing slopes of fan terraces; Zer—south- and west-facing slopes of fan terraces

Elevation: 5,800 to 6,800 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 50 to 75 days

Characteristics of Derwell

Slope: 1 to 5 percent

Typical profile:

0 to 2 inches—pale brown gravelly very fine sandy loam

2 to 15 inches—light yellowish brown very fine sandy loam

15 to 45 inches—very pale brown very gravelly sandy loam

45 to 60 inches—multicolored extremely gravelly sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 4.5 to 6.5 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of erosion: Slight

Characteristics of Zer

Slope: 1 to 5 percent

Typical profile:

0 to 5 inches—light yellowish brown and yellowish brown gravelly loam

5 to 14 inches—very pale brown very gravelly loam

14 to 26 inches—very pale brown and light yellowish brown extremely gravelly sandy loam

26 to 60 inches—very pale brown and light yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of erosion: Slight

Characteristics of Packmo

Slope: 5 to 20 percent

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 10 inches—light yellowish brown gravelly loam

10 to 13 inches—light yellowish brown very gravelly sandy loam

13 to 40 inches—pale brown, very pale brown, white, and multicolored extremely gravelly sandy loam and extremely gravelly loam

40 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Bluedome soils that have slopes of 1 to 5 percent and are near the tops of fan terraces (10 percent)
- A very deep, well drained soil that is dark-colored very gravelly loam and in concave areas on fan terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Derwell, Zer, and Packmo—6e, nonirrigated

Range site: Derwell—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Zer and Packmo—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

58—Dickeypeak-Bigrant complex, 2 to 6 percent slopes

Composition

Dickeypeak and similar soils—60 percent

Bigrant and similar soils—25 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Stream terraces

Elevation: 4,800 to 6,600 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 37 to 39 degrees F

Frost-free season: 40 to 75 days

Characteristics of Dickeypeak

Typical profile:

0 to 3 inches—grayish brown silty clay loam

3 to 32 inches—light gray clay loam and loam

32 to 52 inches—light gray and pale yellow loam and fine sandy loam

52 to 60 inches—light gray gravelly fine sandy loam

60 to 65 inches—greenish gray very gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 8.5 to 10.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Depth to high water table: 18 to 42 inches in March through August

Characteristics of Bigrant

Typical profile:

2 inches to 0—highly decomposed grass

0 to 19 inches—gray and grayish brown silt loam

19 to 25 inches—light brownish gray clay loam

25 to 29 inches—light gray clay

29 to 60 inches—pale olive and light olive gray loam

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately slow

Available water capacity: 11.0 to 12.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Depth to high water table: At the surface to a depth of 12 inches below the surface in April through July

Periods of flooding: Frequency—occasional; duration—brief; months—April through September

Dissimilar Soils

- Thousand soils in concave areas on stream terraces (5 percent)
- Zer soils in convex areas on stream terraces (5 percent)
- A very deep, poorly drained soil that is very gravelly loamy sand and in concave areas on stream terraces (5 percent)

Major Uses

Pastureland, rangeland

Interpretive Groups

Land capability classification: Dickeypeak—6s, nonirrigated, and 4s, irrigated; Bigrant—4w, nonirrigated

Range site: Dickeypeak—SALINE LOAMY 8 TO 11 INCH PZ, black greasewood/basin wildrye; Bigrant—SEMIWET MEADOW

59—Donkehill very gravelly loam, 20 to 50 percent slopes

Composition

Donkehill and similar soils—85 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Hills and mountains (fig. 3)

Elevation: 6,500 to 8,000 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 40 to 60 days

Characteristics of Donkehill

Typical profile:

0 to 3 inches—brown very gravelly loam

3 to 13 inches—brown and pale brown very gravelly loam

13 to 16 inches—pale brown extremely gravelly sandy loam

16 to 20 inches—indurated bedrock

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 0.5 to 1.5 inches

Effective rooting depth: 11 to 19 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A well drained soil that is moderately deep to bedrock, dark-colored very gravelly loam, and in concave areas on north- and east-facing slopes (10 percent)
- A very deep, well drained soil that is very gravelly loam and in drainageways on hills (5 percent)



Figure 3.—Area of Donkehill very gravelly loam, 20 to 50 percent slopes, on bedrock-controlled hills. Cryolls, and Lag and Povey soils on mountains in background.

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass

60—Donkehill-Zeebar complex, 8 to 50 percent slopes

Composition

*Donkehill and similar soils—*45 percent

*Zeebar and similar soils—*30 percent

*Dissimilar soils—*25 percent

Setting

Position on landscape: Mountains

Elevation: 6,500 to 9,000 feet

Average annual precipitation: 13 to 18 inches

Average annual air temperature: 34 to 38 degrees F

Frost-free season: 30 to 60 days

Characteristics of Donkehill

Typical profile:

0 to 3 inches—brown very gravelly loam

3 to 13 inches—pale brown very gravelly loam

13 to 16 inches—pale brown extremely gravelly sandy loam

16 to 20 inches—indurated bedrock

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 0.5 to 1.5 inches

Effective rooting depth: 11 to 19 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Zeebar

Typical profile:

0 to 8 inches—dark brown gravelly loam

8 to 22 inches—dark yellowish brown and yellowish brown very gravelly loam

22 to 35 inches—light olive brown very gravelly sandy clay loam

35 to 49 inches—light olive brown extremely gravelly sandy clay loam

49 to 60 inches—light olive brown extremely gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A well drained soil that is deep to bedrock, very gravelly loam, and in convex areas on mountainsides (10 percent)
- A very deep, well drained soil that is bouldery loam and on mountainsides (5 percent)
- A very deep, well drained soil that is gravelly loam over gravelly clay loam and on mountainsides (5 percent)
- A well drained soil that is moderately deep to bedrock, gravelly loam over very gravelly sandy clay loam, and on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Donkehill and Zeebar—6e, nonirrigated

Range site: Donkehill—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass; Zeebar—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

61—Donkehill-Zeebar, low precipitation, complex, 20 to 35 percent slopes

Composition

Donkehill and similar soils—40 percent

Zeebar and similar soils—35 percent

Dissimilar soils—25 percent

Setting

Position on landscape: Mountains and hills
Elevation: 6,600 to 7,500 feet
Average annual precipitation: 13 to 15 inches
Average annual air temperature: 35 to 38 degrees F
Frost-free season: 30 to 60 days

Characteristics of Donkehill

Typical profile:
 0 to 3 inches—brown very gravelly loam
 3 to 13 inches—pale brown very gravelly loam
 13 to 16 inches—pale brown extremely gravelly sandy loam
 16 to 20 inches—indurated bedrock
Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 0.5 to 1.5 inches
Effective rooting depth: 11 to 19 inches
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Zeebar

Typical profile:
 0 to 3 inches—brown gravelly loam
 3 to 13 inches—brown very gravelly loam
 13 to 19 inches—brown very gravelly clay loam
 19 to 29 inches—pale brown extremely gravelly clay loam
 29 to 60 inches—pale brown and very pale brown extremely gravelly loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 3.5 to 5.0 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Soils

- Resoot soils in minor basin areas that have 2 to 10 percent slopes (5 percent)
- A well drained soil that is deep to bedrock, very gravelly loam, and in convex areas on mountainsides (10 percent)
- A very deep, well drained soil that is dark-colored very gravelly loam and in concave areas and drainageways on hills (5 percent)
- A well drained soil that is moderately deep to bedrock, very gravelly loam, and on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Donkehill and Zeebar—6e, nonirrigated
Range site: Donkehill—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/
 bluebunch wheatgrass; Zeebar—NORTH SLOPE LOAMY 12 TO 16 INCH PZ,
 threetip sagebrush/Idaho fescue

62—Dumps, mine

Description: Areas of waste rock from mines, quarries, and smelters

Position on landscape: Hills, low terraces, and valley floors

Major use: Wildlife habitat

Land capability classification: 8

63—Escarlo-Heathcoat complex, 4 to 30 percent slopes

Composition

Escarlo and similar soils—45 percent

Heathcoat and similar soils—40 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Hills

Elevation: 6,500 to 7,200 feet

Average annual precipitation: 11 to 14 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 40 to 60 days

Characteristics of Escarlo

Typical profile:

0 to 3 inches—grayish brown gravelly loam

3 to 11 inches—brown loam

11 to 32 inches—pale brown and white gravelly clay and gravelly clay loam

32 to 48 inches—light gray gravelly clay loam

48 to 60 inches—white gravelly clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 8 to 10 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Heathcoat

Typical profile:

0 to 2 inches—very dark grayish brown gravelly silt loam

2 to 10 inches—very dark grayish brown and dark grayish brown loam

10 to 47 inches—brown, pale brown, and very pale brown clay loam, clay, and silty clay

47 to 60 inches—very pale brown very gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 7.5 to 10.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Dissimilar Soils

- A very deep, well drained soil that is loam and on uplifted hillsides (5 percent)
- A very deep, poorly drained soil that is loam over clay loam over clay and in drainageways and concave areas on hills (5 percent)
- A very deep, well drained soil that is sandy loam and on hillsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Escarlo—4e, nonirrigated; Heathcoat—6s, nonirrigated
Range site: Escarlo—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass; Heathcoat—LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

64—Escarlo, high precipitation-Heathcoat complex, 4 to 30 percent slopes

Composition

Escarlo and similar soils—55 percent
Heathcoat and similar soils—40 percent
Dissimilar soil—5 percent

Setting

Position on landscape: Escarlo, high precipitation—linear to convex areas on hills; Heathcoat—concave areas on hills (fig. 4)
Elevation: 6,800 to 7,500 feet
Average annual precipitation: 14 to 16 inches
Average annual air temperature: 35 to 38 degrees F
Frost-free season: 30 to 50 days

Characteristics of Escarlo

Typical profile:

- 0 to 11 inches—dark grayish brown silt loam
- 11 to 47 inches—brown and very pale brown gravelly clay loam and gravelly clay
- 47 to 60 inches—light yellowish brown very gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 8 to 10 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Heathcoat

Typical profile:

- 0 to 2 inches—very dark grayish brown gravelly silt loam
- 2 to 10 inches—very dark grayish brown loam
- 10 to 47 inches—dark grayish brown silty clay
- 47 to 60 inches—brown, pale brown, and very pale brown very gravelly clay loam

Depth class: Very deep

Drainage class: Well drained



Figure 4.—Area of Escarlo, high precipitation-Heathcoat complex, 4 to 30 percent slopes. These soils formed in lacustrine and alluvial deposits on hills. Cryolls, and Lag and Povey soils on mountains in background.

Permeability: Slow

Available water capacity: 7.5 to 10.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Dissimilar Soil

- A very deep, well drained soil that is dark-colored gravelly loam and on mounds on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Escarlo—4e, nonirrigated; Heathcoat—6s, nonirrigated

Range site: Escarlo—CLAYEY 13 TO 16 INCH PZ, low sagebrush/Idaho fescue;

Heathcoat—LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

65—Ezbin-Zeebar-Nielsen complex, 20 to 50 percent slopes

Composition

Ezbin and similar soils—40 percent

Zeebar and similar soils—30 percent

Nielsen and similar soils—15 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Ezbin—north- and east-facing slopes of mountains and ridges;
Zeebar—south- and west-facing slopes of mountains and ridges; Nielsen—
ridgetops

Elevation: 6,500 to 8,500 feet

Average annual precipitation: 15 to 20 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 20 to 40 days

Characteristics of Ezbin

Typical profile:

2 inches to 0—slightly decomposed needles, twigs, and grass

0 to 11 inches—brown very stony loam

11 to 30 inches—yellowish brown very gravelly clay loam

30 to 50 inches—yellowish brown very cobbly loam

50 to 60 inches—yellowish brown extremely stony loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Zeebar

Typical profile:

0 to 8 inches—dark brown gravelly loam

8 to 22 inches—dark yellowish brown and yellowish brown very gravelly
loam

22 to 35 inches—light olive brown very gravelly sandy clay loam

35 to 49 inches—light olive brown extremely gravelly sandy clay loam

49 to 60 inches—light olive brown extremely gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Nielsen

Typical profile:

0 to 3 inches—dark grayish brown cobbly loam

3 to 15 inches—dark grayish brown very gravelly clay loam and extremely
gravelly clay loam

15 to 25 inches—indurated andesite

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Medium

Hazard of erosion: Moderate

Dissimilar Areas

- Klug soils on mountains with slopes of more than 50 percent (5 percent)
- A well drained soil that is moderately deep to bedrock, cobbly loam over extremely gravelly clay loam, and on ridgetops (5 percent)
- Rock outcrop on ridgetops and mountain slopes (5 percent)

Major Uses

Ezbin—woodland; Zeebar and Nielsen—rangeland

Woodland

Ezbin

Forest habitat type: Douglas fir/pinegrass

Average site index for Douglas fir (100-year site curve)—45

Estimated average production of Douglas fir (culmination of mean annual increment (CMAI): 49 cubic feet per acre at 60 years of age

Interpretive Groups

Land capability classification: Ezbin and Zeebar—6e, nonirrigated; Nielsen—7e, nonirrigated

Range site: Zeebar—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Nielsen—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

66—Fandow gravelly loam, 2 to 6 percent slopes

Composition

Fandow and similar soils—85 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,400 to 7,100 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 30 to 60 days

Characteristics of Fandow

Typical profile:

0 to 3 inches—pale brown gravelly loam

3 to 12 inches—light yellowish brown and pale brown very gravelly loam

12 to 14 inches—very pale brown hardpan

14 to 60 inches—very pale brown extremely gravelly loamy coarse sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Available water capacity: 1 to 2 inches

Effective rooting depth: 10 to 16 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A well drained soil that is moderately deep to a hardpan, gravelly loam over very gravelly loam, and on mounds on fan terraces (10 percent)

- A very deep, well drained soil that is very gravelly loam and in drainageways on outwash fans and fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 7s, nonirrigated

Range site: SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ, low sagebrush/
bluebunch wheatgrass

67—Fandow-Arbus complex, 2 to 6 percent slopes

Composition

Fandow and similar soils—50 percent

Arbus and similar soils—45 percent

Dissimilar areas—5 percent

Setting

Position on landscape: Fan terraces and outwash fans (fig. 5)

Elevation: 6,400 to 7,100 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 30 to 60 days

Characteristics of Fandow

Typical profile:

0 to 3 inches—pale brown gravelly loam

3 to 12 inches—light yellowish brown and pale brown very gravelly loam

12 to 14 inches—very pale brown hardpan

14 to 60 inches—very pale brown extremely gravelly loamy coarse sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Available water capacity: 1 to 2 inches

Effective rooting depth: 10 to 16 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Arbus

Typical profile:

0 to 4 inches—brown gravelly loam

4 to 16 inches—pale brown very gravelly loam

16 to 20 inches—very pale brown extremely gravelly loam

20 to 60 inches—grayish brown and dark gray extremely gravelly loamy sand and
extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 3.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight



Figure 5.—Area of Fandow-Arbus complex, 2 to 6 percent slopes. These soils formed in limestone alluvium.

Dissimilar Areas

- Rock outcrop on fan terraces and outwash fans (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Fandow—7s, nonirrigated; Arbus—6s, nonirrigated

Range site: Fandow and Arbus—SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ, low sagebrush/bluebunch wheatgrass

68—Farvant-Badland-Gradco complex, 25 to 60 percent slopes

Composition

Farvant and similar soils—35 percent

Badland—25 percent

Gradco and similar soils—20 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Farvant—convex areas on north- and east-facing slopes of mountains; Badland—convex areas on south- and west-facing slopes of mountains; Gradco—concave areas on north- and east-facing back slopes of mountains

Elevation: 5,000 to 6,000 feet

Average annual precipitation: 7 to 9 inches
Average annual air temperature: 39 to 41 degrees F
Frost-free season: 70 to 80 days

Characteristics of Farvant

Slope: 35 to 60 percent

Typical profile:

0 to 2 inches—dark grayish brown channery fine sandy loam

2 to 7 inches—light yellowish brown very gravelly loam

7 to 11 inches—pale yellow extremely flaggy sandy loam

11 to 15 inches—moderately cemented tuff

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 0.5 to 1.5 inches

Effective rooting depth: 10 to 17 inches

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Badland

Description of areas: Barren or nearly barren, fragile land composed mainly of severely eroded tuff; generally in areas where the soil material above the soft tuff has been eroded

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Gradco

Slope: 25 to 40 percent

Typical profile:

0 to 3 inches—light yellowish brown channery fine sandy loam

3 to 14 inches—light yellowish brown and light olive brown very gravelly sandy loam

14 to 29 inches—light yellowish brown extremely flaggy fine sandy loam

29 to 33 inches—moderately cemented tuff

Depth class: Moderately deep to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 3.5 inches

Effective rooting depth: 20 to 40 inches

Runoff: Medium

Hazard of erosion: Moderate

Dissimilar Soils

- Dawtonia soils in concave to linear areas on lower ridges (5 percent)
- A well drained soil that is moderately deep to bedrock, stony loam over very stony loam, and on mountainsides (10 percent)
- A well drained soil that is deep to bedrock, very gravelly sandy loam over extremely flaggy loam, and in eroded areas (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Farvant—7s, nonirrigated; Badland—8; Gradco—6e, nonirrigated

Range site: Farvant—FRAGILE LANDS 7 TO 9 INCH PZ, shadscale saltbush/Salmon wildrye; Gradco—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

69—Farvant-Sactus-Dawtonia complex, 10 to 40 percent slopes

Composition

Farvant and similar soils—45 percent
Sactus and similar soils—30 percent
Dawtonia and similar soils—15 percent
Dissimilar areas—10 percent

Setting

Position on landscape: Farvant—hills and ridges; Sactus—ridges; Dawtonia—hills below areas of Rock outcrop
Elevation: 5,200 to 6,200 feet
Average annual precipitation: 6 to 8 inches
Average annual air temperature: 38 to 41 degrees F
Frost-free season: 60 to 90 days

Characteristics of Farvant

Slope: 20 to 40 percent
Typical profile:
 0 to 3 inches—pale brown gravelly sandy loam
 3 to 15 inches—pale brown, light yellowish brown, and very pale brown very gravelly loam and very gravelly sandy loam
 15 to 19 inches—moderately cemented tuff
Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Moderately rapid
Available water capacity: 0.5 to 1.5 inches
Effective rooting depth: 10 to 17 inches
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Sactus

Slope: 10 to 25 percent
Typical profile:
 0 to 2 inches—pale brown very gravelly loam
 2 to 9 inches—yellowish brown extremely gravelly loam
 9 to 19 inches—indurated rhyolite
Depth class: Very shallow to bedrock
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 0.5 to 1.0 inch
Effective rooting depth: 6 to 10 inches
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Dawtonia

Slope: 25 to 40 percent

Typical profile:

0 to 5 inches—very pale brown gravelly loam

5 to 24 inches—dark yellowish brown and pale brown very gravelly clay loam

24 to 60 inches—yellowish brown and very pale brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- Mitring soils on ridges (5 percent)
- Rock outcrop on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Farvant and Sactus—7s, nonirrigated; Dawtonia—7e, nonirrigated

Range site: Farvant—FRAGILE LANDS 7 TO 9 INCH PZ, shadscale saltbush/Salmon wildrye; Sactus—SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/ricegrass-needleandthread; Dawtonia—FLAGSTONE 8 TO 11 INCH PZ, Wyoming big sagebrush/Salmon wildrye

70—Fezip-Lemroi-Redfish complex, 0 to 2 percent slopes***Composition***

*Fezip and similar soils—*35 percent

*Lemroi and similar soils—*25 percent

*Redfish and similar soils—*15 percent

*Dissimilar soils—*25 percent

Setting

Position on landscape: Flood plains and stream terraces

Elevation: 5,600 to 7,400 feet

Average annual precipitation: 8 to 18 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free season: 30 to 60 days

Characteristics of Fezip*Typical profile:*

0 to 6 inches—dark grayish brown fine sandy loam

6 to 16 inches—dark grayish brown loamy sand

16 to 26 inches—grayish brown fine sandy loam

26 to 60 inches—multicolored extremely gravelly loamy coarse sand and extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 25 to 30 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in May through August

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Characteristics of Lemroi

Typical profile:

3 inches to 0—moderately decomposed roots and grass

0 to 8 inches—dark gray silt loam

8 to 15 inches—dark gray silt loam and gravelly silt loam

15 to 23 inches—light gray extremely gravelly loam

23 to 60 inches—gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 20 to 30 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 18 inches in April through October

Periods of flooding: Frequency—frequent; duration—brief; months—January through June

Characteristics of Redfish

Typical profile:

0 to 5 inches—brown fine sandy loam

5 to 10 inches—brown gravelly fine sandy loam

10 to 60 inches—multicolored extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2.0 to 3.5 inches

Effective rooting depth: 10 to 22 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in March through August

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Dissimilar Soils

- Grandjean soils in convex areas on flood plains (5 percent)
- Thosand soils in concave areas on flood plains (5 percent)
- A very deep, poorly drained soil that is gravelly loam and on flood plains (10 percent)
- A very deep, somewhat poorly drained soil that is very gravelly loamy sand and in old stream channels on flood plains (5 percent)

Major Uses

Rangeland, irrigated pastureland

Interpretive Groups

Land capability classification: Fezip and Redfish—5w, nonirrigated and irrigated;

Lemroi—4w, nonirrigated and irrigated

Range site: Fezip—WET MEADOW; Lemroi—not assigned; Redfish—RIPARIAN willow/sedge

71—Fezip-Redfish-Copperbasin complex, 0 to 3 percent slopes

Composition

Fezip and similar soils—40 percent
Redfish and similar soils—25 percent
Copperbasin and similar soils—15 percent
Dissimilar soils—20 percent

Setting

Position on landscape: Flood plains
Elevation: 4,800 to 7,400 feet
Average annual precipitation: 10 to 18 inches
Average annual air temperature: 34 to 38 degrees F
Frost-free season: 5 to 50 days

Characteristics of Fezip

Typical profile:

0 to 6 inches—dark grayish brown fine sandy loam
 6 to 16 inches—dark grayish brown loamy sand
 16 to 26 inches—grayish brown fine sandy loam
 26 to 60 inches—multicolored extremely gravelly loamy coarse sand and extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 25 to 30 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in May through August

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Characteristics of Redfish

Typical profile:

0 to 5 inches—brown fine sandy loam
 5 to 10 inches—brown gravelly fine sandy loam
 10 to 60 inches—multicolored extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2.0 to 3.5 inches

Effective rooting depth: 10 to 22 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in March through August

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Characteristics of Copperbasin

Typical profile:

0 to 10 inches—dark grayish brown very gravelly fine sandy loam
 10 to 60 inches—light brownish gray extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 42 inches in March through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soils

- A very deep, somewhat poorly drained soil that is light-colored very gravelly sandy loam and in gravel bars on flood plains (10 percent)
- A very deep, poorly drained soil that is sandy loam over clay loam and on flood plains (5 percent)
- A very deep, somewhat excessively drained soil that is very gravelly sandy loam and in elevated areas on flood plains (5 percent)

Major Uses

Rangeland, irrigated pastureland

Interpretive Groups

Land capability classification: Fezip and Redfish—5w, nonirrigated and irrigated; Copperbasin—6c, nonirrigated and irrigated

Range site: Fezip—WET MEADOW; Redfish—RIPARIAN willow/sedge; Copperbasin—MOUNTAIN WET MEADOW

72—Firebox gravelly loam, 2 to 10 percent slopes

Composition

Firebox and similar soils—85 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,500 to 7,000 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 39 degrees F

Frost-free season: 30 to 60 days

Characteristics of Firebox

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 15 inches—brown and dark yellowish brown very gravelly loam and very gravelly sandy loam

15 to 60 inches—yellowish brown and pink extremely gravelly loamy coarse sand and extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.0 to 2.5 inches

Effective rooting depth: 10 to 22 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Pahsimeroi soils on lower fan terraces (10 percent)
- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly sandy loam and on upper fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site: DRY GRAVELLY 13 TO 16 INCH PZ, threetip sagebrush/bluebunch wheatgrass

73—Firebox extremely stony loam, 2 to 8 percent slopes

Composition

*Firebox and similar soils—*95 percent

*Dissimilar soils—*5 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,000 to 6,800 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 39 degrees F

Frost-free season: 30 to 60 days

Characteristics of Firebox

Typical profile:

0 to 10 inches—very dark grayish brown and dark brown extremely stony loam

10 to 16 inches—dark yellowish brown extremely cobbly sandy loam

16 to 60 inches—brown and pale brown extremely cobbly loamy sand and extremely cobbly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.0 to 2.5 inches

Effective rooting depth: 10 to 22 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Zeale soils throughout the unit (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 7s, nonirrigated

Range site: GRAVELLY 13 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

74—Frailton-Dawtonia complex, 15 to 50 percent slopes

Composition

Frailton and similar soils—50 percent

Dawtonia and similar soils—35 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Frailton—all aspects of ridges; Dawtonia—south- and west-facing slopes of ridges

Elevation: 6,000 to 6,700 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 60 to 90 days

Characteristics of Frailton

Slope: 20 to 50 percent

Typical profile:

0 to 2 inches—pale brown gravelly sandy loam

2 to 10 inches—pale brown very gravelly sandy loam

10 to 14 inches—light yellowish brown extremely flaggy sandy loam

14 to 18 inches—moderately cemented tuff

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 0.5 to 1.0 inch

Effective rooting depth: 10 to 20 inches

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Dawtonia

Slope: 15 to 25 percent

Typical profile:

0 to 4 inches—brown gravelly loam

4 to 12 inches—yellowish brown very gravelly loam

12 to 24 inches—pale brown very gravelly loam

24 to 60 inches—light yellowish brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- Zer soils in drainageways on ridges (10 percent)
- Badland below ridges (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Frailton—7e, nonirrigated; Dawtonia—6e, nonirrigated
Range site: Frailton—FLAGSTONE 8 TO 11 INCH PZ, Wyoming big sagebrush/Salmon wildrye; Dawtonia—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

75—Frailton-Gradco complex, 35 to 60 percent slopes

Composition

Frailton and similar soils—50 percent
Gradco and similar soils—25 percent
Dissimilar areas—25 percent

Setting

Position on landscape: Frailton—south- and west-facing mountain slopes; Gradco—north-facing mountain slopes
Elevation: 6,500 to 7,000 feet
Average annual precipitation: 7 to 9 inches
Average annual air temperature: 38 to 40 degrees F
Frost-free season: 60 to 80 days

Characteristics of Frailton

Slope: 40 to 60 percent
Typical profile:
 0 to 1 inch—light yellowish brown very gravelly loam
 1 to 11 inches—light yellowish brown very gravelly sandy loam
 11 to 15 inches—moderately cemented tuff
Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 0.5 to 1.5 inches
Effective rooting depth: 10 to 20 inches
Runoff: Rapid
Hazard of water erosion: Severe

Characteristics of Gradco

Slope: 35 to 50 percent
Typical profile:
 0 to 4 inches—pale brown gravelly loam
 4 to 9 inches—brown very flaggy fine sandy loam
 9 to 30 inches—brownish yellow extremely flaggy fine sandy loam
 30 to 34 inches—moderately cemented tuff
Depth class: Moderately deep to bedrock
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 1.0 to 3.5 inches
Effective rooting depth: 20 to 30 inches
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Areas

- A well drained soil that is very shallow to bedrock, very gravelly loam, and in convex areas on ridges (10 percent)

- A well drained soil that is moderately deep to bedrock, very channery loam over very gravelly clay loam, and on north-facing slopes (5 percent)
- Badland on lower terraces (5 percent)
- A well drained soil that is shallow to bedrock, has a cryic temperature regime, is very gravelly loam, and is on upper ridges and north slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Frailton and Gradco—7e, nonirrigated

Range site: Frailton—FRAGILE LANDS 7 TO 9 INCH PZ, shadscale saltbush/Salmon wildrye; Gradco—LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass

76—Friedman-Reck-Goldhill complex, 5 to 35 percent slopes

Composition

Friedman and similar soils—40 percent

Reck and similar soils—25 percent

Goldhill and similar soils—20 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Friedman—concave areas on north- and east-facing mountain slopes; Reck—north- and east-facing mountain slopes; Goldhill—south- and west-facing mountain slopes

Elevation: 7,400 to 8,800 feet

Average annual precipitation: 13 to 17 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free season: 20 to 40 days

Characteristics of Friedman

Typical profile:

0 to 8 inches—very dark grayish brown gravelly loam

8 to 13 inches—brown gravelly loam

13 to 60 inches—brown and yellowish brown very gravelly clay and extremely gravelly clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Reck

Typical profile:

0 to 3 inches—grayish brown gravelly loam

3 to 11 inches—brown very gravelly clay loam

11 to 60 inches—yellowish brown and light yellowish brown very gravelly clay

Depth class: Very deep

Drainage class: Well drained
Permeability: Very slow
Available water capacity: 4.5 to 6.0 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate
Shrink-swell potential: High

Characteristics of Goldhill

Typical profile:

- 0 to 5 inches—grayish brown loam
- 5 to 58 inches—brown, light yellowish brown, and pale yellow gravelly clay loam and gravelly clay
- 58 to 60 inches—light yellowish brown very gravelly clay loam

Depth class: Very deep
Drainage class: Well drained
Permeability: Slow
Available water capacity: 6.5 to 9.0 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of erosion: Moderate
Shrink-swell potential: High

Dissimilar Soils

- A very deep, well drained soil that is very gravelly loam over very gravelly clay loam and in drainageways on mountains (10 percent)
- A very deep, well drained soil that is very gravelly loam and on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Friedman—4e, nonirrigated; Reck and Goldhill—6e, nonirrigated
Range site: Friedman—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Reck—CLAYEY 12 TO 16 INCH PZ, alkali sagebrush/Idaho fescue; Goldhill—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass

77—Gaciba-Cronks complex, 25 to 60 percent slopes

Composition

Gaciba and similar soils—45 percent
Cronks and similar soils—30 percent
Dissimilar areas—25 percent

Setting

Position on landscape: Gaciba—convex areas on south- and west-facing slopes of mountains and hills; Cronks—concave areas on south- and west-facing slopes of mountain and hills
Elevation: 6,300 to 7,300 feet
Average annual precipitation: 11 to 13 inches
Average annual air temperature: 37 to 41 degrees F
Frost-free season: 50 to 70 days

Characteristics of Gaciba

Typical profile:

0 to 4 inches—brown very gravelly loam

4 to 12 inches—yellowish brown and pale brown very gravelly loam

12 to 16 inches—indurated basalt

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 12 to 20 inches

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Cronks

Typical profile:

0 to 10 inches—brown very cobbly loam

10 to 35 inches—brown very cobbly clay

35 to 55 inches—pale brown very cobbly silt loam

55 to 70 inches—pale brown very cobbly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Shrink-swell potential: High

Dissimilar Areas

- A very deep, well drained soil that is very cobbly loam over very cobbly clay, has a cryic temperature regime, and is on mountain side slopes (10 percent)
- Rubble land on mountain slopes (10 percent)
- Rock outcrop on mountain slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Gaciba and Cronks—7e, nonirrigated

Range site: Gaciba and Cronks—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ,
Wyoming big sagebrush/bluebunch wheatgrass

78—Gaciba-Dacont complex, 20 to 50 percent slopes

Composition

Gaciba and similar soils—70 percent

Dacont and similar soils—15 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Gaciba—mountains; Dacont—fan terraces

Elevation: 5,000 to 6,500 feet

Average annual precipitation: 11 to 14 inches

Average annual air temperature: 38 to 44 degrees F

Frost-free season: 60 to 90 days

Characteristics of Gaciba

Typical profile:

0 to 4 inches—yellowish brown gravelly loam

4 to 15 inches—yellowish brown very gravelly loam

15 to 19 inches—indurated basalt

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 12 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Dacont

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 28 inches—yellowish brown very gravelly loam

28 to 41 inches—brown extremely gravelly loam

41 to 60 inches—brown and pale brown extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A well drained soil that is very shallow to bedrock, very gravelly loam, and on ridgetops (10 percent)
- A well drained soil that is deep to bedrock, very gravelly loam, and in drainageways on mountains and fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Gaciba—7e, nonirrigated; Dacont—6e, nonirrigated

Range site: Gaciba and Dacont—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ,

Wyoming big sagebrush/bluebunch wheatgrass

79—Gany gravelly loam, 30 to 60 percent slopes

Composition

*Gany and similar soils—*80 percent

*Dissimilar areas—*20 percent

Setting

Position on landscape: North- and east-facing mountain slopes

Elevation: 6,500 to 9,000 feet

Average annual precipitation: 23 to 30 inches
Average annual air temperature: 34 to 38 degrees F
Frost-free season: 10 to 40 days

Characteristics of Gany

Typical profile:

- 0.5 inch to 0—slightly decomposed needles, leaves, twigs, and grass
- 0 to 6 inches—brown gravelly loam
- 6 to 21 inches—brown and very pale brown very gravelly loam
- 21 to 60 inches—very pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.5 inches

Effective rooting depth: 5 to 10 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- Skibo soils on south- and west-facing mountainsides (10 percent)
- Zeelnot soils in convex areas on mountainsides (5 percent)
- Rock outcrop on mountains (5 percent)

Major Use

Woodland

Woodland

Forest habitat type: Douglas fir/mountain snowberry

Average site index for Douglas fir (100-year site curve): 30

Estimated average annual production of Douglas fir at the culmination of the mean annual increment (CMAI): 35 cubic feet per acre at 60 years of age

Interpretive Groups

Land capability classification: 7e, nonirrigated

80—Geemore gravelly loam, 2 to 8 percent slopes

Composition

*Geemore and similar soils—*90 percent

*Dissimilar soils—*10 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,800 to 7,500 feet

Average annual precipitation: 16 to 22 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 30 to 60 days

Characteristics of Geemore

Typical profile:

- 0 to 3 inches—very dark grayish brown gravelly loam
- 3 to 39 inches—very dark grayish brown, dark grayish brown, and white very gravelly clay loam

39 to 45 inches—white very gravelly clay loam

45 to 60 inches—white very gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Wiggleton soils on outwash fans and fan terraces at an elevation of less than 6,800 feet (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site: LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

81—Germer-Dawtonia complex, 2 to 10 percent slopes

Composition

*Germer and similar soils—*55 percent

*Dawtonia and similar soils—*25 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: North- and east-facing fan terraces

Elevation: 5,200 to 5,900 feet

Average annual precipitation: 6 to 8 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 60 to 90 days

Characteristics of Germer

Typical profile:

0 to 3 inches—pale brown very gravelly loam

3 to 9 inches—brown gravelly clay loam

9 to 21 inches—light yellowish brown and very pale brown very gravelly loam

21 to 60 inches—very pale brown extremely gravelly sandy loam and extremely gravelly coarse sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow in the upper part and moderately rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Dawtonia

Typical profile:

0 to 3 inches—yellowish brown very gravelly loam

3 to 10 inches—yellowish brown very gravelly loam

10 to 60 inches—light yellowish brown and yellowish brown very gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, well drained soil that is very stony loam and on fan terraces (10 percent)
- A very deep, well drained soil that is very gravelly loam over very gravelly sandy loam and on upper fan terraces (10 percent)

Major Uses

Rangeland, irrigated cropland

Interpretive Groups

Land capability classification: Germer and Dawtonia—6e, nonirrigated, and 4e, irrigated

Range site: Germer—SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/ ricegrass-needleandthread; Dawtonia—FLAGSTONE 8 TO 11 INCH PZ, Wyoming big sagebrush/Salmon wildrye

82—Goldaho-Zer complex, 5 to 35 percent slopes

Composition

Goldaho and similar soils—65 percent

Zer and similar soils—25 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Goldaho—south- and west-facing slopes of moraines;

Zer—east-facing slopes of fan terraces

Elevation: 5,000 to 6,500 feet

Average annual precipitation: 7 to 10 inches

Average annual air temperature: 38 to 40 degrees F

Frost-free season: 50 to 80 days

Characteristics of Goldaho

Typical profile:

0 to 6 inches—pale brown gravelly loam

6 to 17 inches—light yellowish brown and yellowish brown clay and silty clay

17 to 37 inches—pale brown gravelly silty clay

37 to 61 inches—pale brown clay loam and silty clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Very slow

Available water capacity: 6.0 to 8.5 inches

Effective rooting depth: 5 to 10 inches

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Characteristics of Zer

Typical profile:

0 to 2 inches—light yellowish brown gravelly loam

2 to 5 inches—yellowish brown gravelly loam

5 to 14 inches—very pale brown very gravelly loam

14 to 26 inches—very pale brown and light yellowish brown extremely gravelly sandy loam

26 to 60 inches—very pale brown and light yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is gravelly loam over gravelly clay and on lower fan terraces (5 percent)
- A very deep, well drained soil that is dark-colored very gravelly loam and on upper slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Goldaho and Zer—6e, nonirrigated

Range site: Goldaho—DRY LOAMY 7 TO 10 INCH PZ, shadscale saltbush-fringe sagewort/bluebunch wheatgrass; Zer—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

83—Goldhill-Zeebar complex, 8 to 50 percent slopes

Composition

Goldhill and similar soils—50 percent

Zeebar and similar soils—30 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Goldhill—south- and west-facing mountain slopes;

Zeebar—north- and east-facing mountain slopes

Elevation: 7,000 to 8,500 feet

Average annual precipitation: 14 to 18 inches

Average annual air temperature: 35 to 39 degrees F

Frost-free season: 20 to 40 days

Characteristics of Goldhill

Slope: 8 to 35 percent

Typical profile:

0 to 3 inches—brown loam

3 to 7 inches—brown clay loam

7 to 40 inches—yellowish brown, light yellowish brown, and dark yellowish brown
gravelly clay and gravelly clay loam

40 to 60 inches—light yellowish brown very gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 6.5 to 9.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Characteristics of Zeebar

Slope: 20 to 50 percent

Typical profile:

0 to 3 inches—dark grayish brown gravelly loam

3 to 21 inches—dark grayish brown and yellowish brown very gravelly loam

21 to 60 inches—pale brown extremely gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, poorly drained soil that is gravelly loam over gravelly clay and in depressions on terraces (10 percent)
- A very deep, well drained soil that is very gravelly loam over very gravelly clay loam and in drainageways on mountains (5 percent)
- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly loam and in concave areas on north- and east-facing slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Goldhill and Zeebar—6e, nonirrigated

Range site: Goldhill—CLAYEY 12 TO 16 INCH PZ, alkali sagebrush/Idaho fescue;
Zeebar—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

84—Goosebury very gravelly loam, 2 to 8 percent slopes

Composition

Goosebury and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,300 to 7,000 feet

Average annual precipitation: 8 to 10 inches
Average annual air temperature: 37 to 40 degrees F
Frost-free season: 40 to 60 days

Characteristics of Goosebury

Typical profile:

- 0 to 2 inches—brown very gravelly loam
- 2 to 11 inches—light brownish gray and brown very gravelly loam
- 11 to 41 inches—light brownish gray and grayish brown extremely gravelly sandy loam
- 41 to 60 inches—dark grayish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3 to 4 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Fandow soils on fan terrace remnants near the base of mountains (10 percent)
- A very deep, well drained soil that is dark-colored very gravelly loam and on upper fan terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: COLD GRAVELLY 8 TO 12 INCH PZ, black sagebrush/needleandthread

85—Goosebury very gravelly loam, high precipitation, 5 to 20 percent slopes

Composition

*Goosebury and similar soils—*90 percent

*Dissimilar soils—*10 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,500 to 8,000 feet

Average annual precipitation: 10 to 13 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free season: 30 to 60 days

Characteristics of Goosebury

Typical profile:

- 0 to 3 inches—pale brown very gravelly loam
- 3 to 22 inches—light gray very gravelly loam
- 22 to 60 inches—grayish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and moderately rapid in the lower part

Available water capacity: 3 to 4 inches
Effective rooting depth: 60 inches or more
Runoff: Slow
Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, well drained soil that is gravelly loam and in drainageways on fan terraces (5 percent)
- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly loam and in mounds on fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated
Range site: SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ, low sagebrush/
 bluebunch wheatgrass

86—Goosebury-Windcoat complex, 5 to 20 percent slopes

Composition

*Goosebury and similar soils—*60 percent
*Windcoat and similar soils—*25 percent
*Dissimilar soils—*15 percent

Setting

Position on landscape: Fan terraces and outwash fans
Elevation: 6,500 to 8,000 feet
Average annual precipitation: 10 to 13 inches
Average annual air temperature: 35 to 38 degrees F
Frost-free season: 30 to 60 days

Characteristics of Goosebury

Typical profile:

- 0 to 11 inches—pale brown gravelly loam
- 11 to 22 inches—light gray very gravelly loam
- 22 to 60 inches—grayish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and moderately rapid in the lower part

Available water capacity: 3 to 4 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Windcoat

Typical profile:

- 0 to 5 inches—pale brown gravelly silt loam
- 5 to 15 inches—pale brown gravelly silt loam
- 15 to 18 inches—white hardpan
- 18 to 60 inches—light brownish gray extremely gravelly coarse sandy loam

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 9 to 15 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A well drained soil that is moderately deep to a hardpan, gravelly silt loam, and in drainageways on fan terraces (10 percent)
- A well drained soil that is very shallow to a hardpan, gravelly silt loam, and in convex areas on outwash fans (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Goosebury and Windcoat—6e, nonirrigated

Range site: Goosebury and Windcoat—SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ, low sagebrush/bluebunch wheatgrass

87—Gradco-Farvant complex, 15 to 30 percent slopes

Composition

*Gradco and similar soils—*45 percent

*Farvant and similar soils—*35 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Gradco—north- and east-facing slopes of hills and ridges;

Farvant—south- and west-facing slopes of hills and ridges

Elevation: 5,500 to 6,500 feet

Average annual precipitation: 7 to 9 inches

Average annual air temperature: 39 to 42 degrees F

Frost-free season: 70 to 80 days

Characteristics of Gradco

Typical profile:

0 to 2 inches—light yellowish brown channery fine sandy loam

2 to 7 inches—light yellowish brown very flaggy fine sandy loam

7 to 33 inches—light yellowish brown and brownish yellow extremely flaggy fine sandy loam and extremely flaggy loam

33 to 37 inches—moderately cemented tuff

Depth class: Moderately deep to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 3.5 inches

Effective rooting depth: 20 to 40 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Farvant

Typical profile:

- 0 to 3 inches—light olive brown gravelly sandy loam
- 3 to 8 inches—light yellowish brown very gravelly sandy loam
- 8 to 14 inches—light yellowish brown extremely flaggy sandy loam
- 14 to 18 inches—moderately cemented tuff

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 0.5 to 1.5 inches

Effective rooting depth: 10 to 17 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is gravelly sandy loam over extremely flaggy sandy loam and in concave areas on north- and east-facing slopes (10 percent)
- A well drained soil that is moderately deep to bedrock, gravelly sandy loam, and in drainageways on hills (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Gradco—6e, nonirrigated; Farvant—7s, nonirrigated

Range site: Gradco—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Farvant—FRAGILE LANDS 7 TO 9 INCH PZ, shadscale saltbush/Salmon wildrye

88—Gradco-Farvant complex, 30 to 60 percent slopes

Composition

Gradco and similar soils—50 percent

Farvant and similar soils—35 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Gradco—north- and east-facing slopes of hills and ridges;
Farvant—south- and west-facing slopes of hills and ridges

Elevation: 6,200 to 7,000 feet

Average annual precipitation: 7 to 11 inches

Average annual air temperature: 39 to 41 degrees F

Frost-free season: 60 to 80 days

Characteristics of Gradco

Typical profile:

- 0 to 2 inches—light yellowish brown channery fine sandy loam
- 2 to 7 inches—light yellowish brown very flaggy fine sandy loam
- 7 to 33 inches—light yellowish brown and brownish yellow extremely flaggy fine sandy loam and extremely flaggy loam
- 33 to 37 inches—moderately cemented tuff

Depth class: Moderately deep to bedrock
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 1.0 to 3.5 inches
Effective rooting depth: 20 to 40 inches
Runoff: Rapid
Hazard of water erosion: Severe

Characteristics of Farvant

Typical profile:

- 0 to 3 inches—light olive brown gravelly sandy loam
- 3 to 8 inches—light yellowish brown very gravelly sandy loam
- 8 to 14 inches—light yellowish brown extremely flaggy sandy loam
- 14 to 18 inches—moderately cemented tuff

Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Moderately rapid
Available water capacity: 0.5 to 1.5 inches
Effective rooting depth: 10 to 17 inches
Runoff: Rapid
Hazard of water erosion: Severe

Dissimilar Soils

- A well drained soil that is shallow to bedrock, dark-colored gravelly sandy loam, and in concave areas on north- and east-facing slopes (10 percent)
- A well drained soil that is moderately deep to bedrock, gravelly loam, and on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Gradco—7e, nonirrigated; Farvant—7s, nonirrigated
Range site: Gradco—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Farvant—FRAGILE LANDS 7 TO 9 INCH PZ, shadscale saltbush/Salmon wildrye

89—Hagenbarth-Brabas complex, 10 to 50 percent slopes

Composition

Hagenbarth and similar soils—65 percent
Brabas and similar soils—25 percent
Dissimilar soil—10 percent

Setting

Position on landscape: Hagenbarth—concave areas on north- and east-facing mountain slopes; Brabas—convex areas on windswept mountain slopes
Elevation: 7,000 to 9,000 feet
Average annual precipitation: 16 to 22 inches
Average annual air temperature: 35 to 38 degrees F
Frost-free season: 30 to 60 days

Characteristics of Hagenbarth

Slope: 20 to 50 percent

Typical profile:

0 to 11 inches—brown silt loam

11 to 22 inches—brown loam

22 to 60 inches—light yellowish brown gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 7.0 to 9.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Brabas

Slope: 10 to 20 percent

Typical profile:

0 to 3 inches—grayish brown very gravelly loam

3 to 8 inches—brown gravelly clay loam

8 to 17 inches—light yellowish brown silty clay

17 to 30 inches—white and pale brown extremely gravelly loam and extremely gravelly loamy sand

30 to 60 inches—light yellowish brown and very pale brown gravelly silty clay and silty clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 6 to 7 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Dissimilar Soil

- A very deep, well drained soil that is very gravelly loam and on mountains (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Hagenbarth and Brabas—7e, nonirrigated

Range site: Hagenbarth—LOAMY 16 TO 22 INCH PZ, mountain big

sagebrush/Idaho fescue; Brabas—WINDSWEPT RIDGE 11 TO 16 INCH PZ, threetip sagebrush-low sagebrush/bluegrass

90—Heathcoat gravelly silt loam, 4 to 20 percent slopes

Composition

Heathcoat and similar soils—75 percent

Dissimilar soils—25 percent

Setting

Position on landscape: Hills

Elevation: 6,500 to 7,500 feet

Average annual precipitation: 13 to 15 inches

Average annual air temperature: 38 to 40 degrees F

Frost-free season: 40 to 60 days

Characteristics of Heathcoat

Typical profile:

0 to 2 inches—very dark grayish brown gravelly silt loam

2 to 10 inches—very dark grayish brown and dark grayish brown loam and gravelly clay loam

10 to 47 inches—brown, pale brown, and very pale brown gravelly clay and silty clay

47 to 60 inches—very pale brown very gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 7.5 to 10.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Shrink-swell potential: High

Dissimilar Soils

- Brabas soils in sharply convex areas on ridges (10 percent)
- A very deep, well drained soil that is dark-colored gravelly loam and in concave areas on hills (10 percent)
- A very deep, well drained soil that is very gravelly loam and on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site: LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

91—Heathcoat-Goldhill complex, 4 to 40 percent slopes

Composition

*Heathcoat and similar soils—*50 percent

*Goldhill and similar soils—*30 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Hills

Elevation: 6,900 to 8,400 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 30 to 60 days

Characteristics of Heathcoat

Typical profile:

- 0 to 2 inches—very dark grayish brown gravelly silt loam
- 2 to 10 inches—very dark grayish brown and dark grayish brown loam and gravelly clay loam
- 10 to 47 inches—brown, pale brown, and very pale brown gravelly clay and silty clay
- 47 to 60 inches—very pale brown very gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 7.5 to 10.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Characteristics of Goldhill

Typical profile:

- 0 to 6 inches—brown gravelly loam
- 6 to 11 inches—brown and pale brown very gravelly clay loam
- 11 to 40 inches—very pale brown gravelly clay and silty clay
- 40 to 60 inches—very pale brown loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 6.5 to 9.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Dissimilar Soils

- A very deep, well drained soil that is gravelly silt loam over clay loam and on ridges (10 percent)
- A very deep, well drained soil that is dark-colored loam over clay loam over clay and in drainageways on fan terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Heathcoat—6s, nonirrigated; Goldhill—6e, nonirrigated

Range site: Heathcoat—LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue; Goldhill—CLAYEY 12 TO 16 INCH PZ, alkali sagebrush/Idaho fescue

92—Heathcoat-Soen complex, 10 to 40 percent slopes

Composition

Heathcoat and similar soils—45 percent

Soen and similar soils—30 percent

Dissimilar areas—25 percent

Setting

Position on landscape: Heathcoat—north- and east-facing mountain slopes; Soen—south- and west-facing mountain slopes

Elevation: 6,500 to 7,600 feet

Average annual precipitation: 11 to 14 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 40 to 60 days

Characteristics of Heathcoat

Typical profile:

0 to 6 inches—brown loam

6 to 10 inches—brown silty clay loam

10 to 23 inches—brown gravelly clay

23 to 60 inches—pink cobbly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 7.5 to 10.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Characteristics of Soen

Typical profile:

0 to 6 inches—grayish brown and brown loam

6 to 30 inches—brown and pale brown silty clay loam and clay

30 to 60 inches—light gray cobbly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 8.0 to 10.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Dissimilar Areas

- A very deep, well drained soil that is very bouldery loam over gravelly clay loam and on mountainsides (10 percent)
- A well drained soil that is shallow to bedrock, very gravelly loam over very gravelly clay, and on ridgetops (5 percent)
- A very deep, well drained soil that is very gravelly loam and on ridges and hill slopes (5 percent)
- Rock outcrop on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Heathcoat—6s, nonirrigated; Soen—6e, nonirrigated

Range site: Heathcoat—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush; Soen—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

93—Howcan-Hagenbarth-Hutchley complex, 5 to 60 percent slopes

Composition

Howcan and similar soils—35 percent

Hagenbarth and similar soils—30 percent

Hutchley and similar soils—20 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Howcan—south- and west-facing mountain slopes; Hagenbarth—north- and east-facing mountain slopes; Hutchley—all aspects on mountains

Elevation: 5,500 to 7,500 feet

Average annual precipitation: 14 to 18 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 50 to 90 days

Characteristics of Howcan

Slope: 35 to 60 percent

Typical profile:

0 to 3 inches—grayish brown gravelly loam

3 to 18 inches—brown gravelly loam

18 to 44 inches—brown and yellowish brown very gravelly loam and very gravelly sandy clay loam

44 to 60 inches—light yellowish brown very gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 6.0 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Hagenbarth

Slope: 20 to 35 percent

Typical profile:

0 to 11 inches—brown silt loam

11 to 22 inches—brown loam

22 to 60 inches—light yellowish brown and brown gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 7.0 to 9.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Hutchley

Slope: 5 to 20 percent

Typical profile:

0 to 4 inches—brown gravelly loam

4 to 16 inches—brown and dark yellowish brown very gravelly clay loam

16 to 20 inches—indurated bedrock

Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 1.0 to 2.5 inches
Effective rooting depth: 10 to 20 inches
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Areas

- A very deep, well drained soil that is stony loam over very gravelly clay and on mountains (5 percent)
- Rock outcrop on mountains (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Howcan—7e, nonirrigated; Hagenbarth and Hutchley—6e, nonirrigated
Range site: Howcan—LOAMY 12 TO 16 INCH PZ, mountain big sagebrush/bluebunch wheatgrass; Hagenbarth—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Hutchley—CLAYEY SOUTH SLOPE 12 TO 16 INCH PZ, low sagebrush/bluebunch wheatgrass

94—Hutchley-Nurkey complex, 10 to 40 percent slopes

Composition

Hutchley and similar soils—40 percent
Nurkey and similar soils—35 percent
Dissimilar soils—25 percent

Setting

Position on landscape: Hutchley—south- and west-facing mountain slopes;
 Nurkey—north- and east-facing mountain slopes
Elevation: 6,800 to 7,800 feet
Average annual precipitation: 12 to 14 inches
Average annual air temperature: 38 to 42 degrees F
Frost-free season: 50 to 70 days

Characteristics of Hutchley

Typical profile:

- 0 to 1 inch—yellowish brown gravelly loam
- 1 to 3 inches—brown very gravelly loam
- 3 to 13 inches—dark brown very gravelly clay loam
- 13 to 17 inches—indurated bedrock

Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 1.0 to 2.5 inches
Effective rooting depth: 10 to 20 inches
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Nurkey

Typical profile:

- 0 to 1 inch—brown very gravelly loam
- 1 to 5 inches—brown very gravelly loam
- 5 to 54 inches—brown, pale brown, and light yellowish brown extremely gravelly loam
- 54 to 60 inches—pale brown extremely gravelly fine sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Dawtonia soils on south- and west-facing hill slopes (5 percent)
- Nielsen soils on north- and east-facing hill slopes (10 percent)
- A well drained soil that is shallow to bedrock, gravelly clay loam over gravelly clay, and on south- and west-facing slopes (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Hutchley and Nurkey—6e, nonirrigated

Range site: Hutchley—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Nurkey—DRY GRAVELLY 13 TO 16 INCH PZ, threetip sagebrush/bluebunch wheatgrass

95—Ike-Rock outcrop-Jimbee complex, 15 to 60 percent slopes

Composition

Ike and similar soils—40 percent

Rock outcrop—20 percent

Jimbee and similar soils—15 percent

Dissimilar soils—25 percent

Setting

Position on landscape: Ike—south- and west-facing mountain slopes; Rock outcrop— all aspects on mountains; Jimbee—north- and east-facing mountain slopes

Elevation: 5,500 to 8,000 feet

Average annual precipitation: 10 to 13 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 50 to 70 days

Characteristics of Ike

Typical profile:

- 0 to 3 inches—brown stony loam
- 3 to 12 inches—pale brown very gravelly loam

12 to 17 inches—pale brown extremely gravelly sandy loam

17 to 21 inches—indurated limestone

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Rapid

Hazard of water erosion: Severe

Description of Rock Outcrop

Cliffs, outcroppings, and other exposed areas of barren limestone

Characteristics of Jimbee

Typical profile:

0 to 6 inches—grayish brown and brown gravelly loam

6 to 16 inches—brown and very pale brown very gravelly loam

16 to 20 inches—indurated limestone

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Soils

- Simeroi soils on footslopes and fan terraces (5 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly loam and in pockets between areas of Rock outcrop on mountains (10 percent)
- A very deep, somewhat excessively drained soil that is very gravelly loam and on very steep mountain slopes (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: lke—6e, nonirrigated; Rock outcrop—8; Jimbee—7e, nonirrigated

Range site: lke—LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass; Jimbee—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass

96—Inferno-Grouseville association, 15 to 50 percent slopes

Composition

Inferno and similar soils—40 percent

Grouseville and similar soils—35 percent

Dissimilar soils—25 percent

Inferno

Setting

Position on landscape: South- and west-facing mountain slopes and ridges

Elevation: 6,000 to 8,000 feet
Average annual precipitation: 13 to 16 inches
Average annual air temperature: 40 to 44 degrees F
Frost-free season: 60 to 100 days

Soil characteristics

Slope: 15 to 35 percent

Typical profile:

- 0 to 12 inches—brown gravelly clay loam
- 12 to 36 inches—strong brown and pink gravelly clay
- 36 to 54 inches—pink gravelly clay
- 54 to 60 inches—pink extremely gravelly clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 6.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Grouseville

Setting

Position on landscape: North- and east-facing mountain slopes and ridges

Elevation: 6,000 to 8,000 feet

Average annual precipitation: 14 to 20 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 30 to 60 days

Soil characteristics

Slope: 20 to 50 percent

Typical profile:

- 0 to 7 inches—dark brown silt loam
- 7 to 18 inches—dark brown clay loam
- 18 to 60 inches—brown and pale olive clay and clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 10.5 to 12.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Shrink-swell potential: High

Dissimilar Soils

- Howcan soils on mountains (10 percent)
- A well drained soil that is shallow to bedrock, gravelly clay loam over gravelly clay, and on ridges (10 percent)
- A very deep, well drained soil that is gravelly clay and on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Inferno—6e, nonirrigated; Grouseville—7e, nonirrigated

Range site: Inferno—CLAYEY SOUTH SLOPE 12 TO 16 INCH PZ, low sagebrush/bluebunch wheatgrass; Grouseville—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

97—Jimbee-Rock outcrop-Ike association, 30 to 75 percent slopes

Composition

Jimbee and similar soils—45 percent

Rock outcrop—20 percent

Ike and similar soils—15 percent

Dissimilar soils—20 percent

Jimbee

Setting

Position on landscape: North- and east-facing mountain slopes

Elevation: 6,500 to 8,500 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free season: 10 to 50 days

Soil characteristics

Typical profile:

0 to 6 inches—grayish brown and brown gravelly loam

6 to 16 inches—brown and very pale brown very gravelly loam

16 to 20 inches—indurated limestone

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Rapid

Hazard of water erosion: Severe

Rock Outcrop

Cliffs, outcroppings, and other areas of exposed barren rock of varying geologic origin

Ike

Setting

Position on landscape: South- and west-facing mountain slopes

Elevation: 6,500 to 8,500 feet

Average annual precipitation: 10 to 12 inches

Average annual air temperature: 40 to 42 degrees F

Frost-free season: 60 to 70 days

Soil characteristics

Typical profile:

0 to 3 inches—brown stony loam

3 to 12 inches—pale brown very gravelly loam

12 to 17 inches—pale brown extremely gravelly sandy loam

17 to 21 inches—indurated limestone

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Soils

- Adek soils on ridgetops and north-facing side slopes (5 percent)
- A very deep, well drained soil that is very gravelly loam and on mountain slopes (10 percent)
- A well drained soil that is moderately deep to bedrock, very gravelly loam, and in drainageways on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Jimbee and Ike—7e, nonirrigated; Rock outcrop—8

Range site: Jimbee—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass; Ike—LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass

98—Justesen-Drage complex, 2 to 15 percent slopes

Composition

Justesen and similar soils—50 percent

Drage and similar soils—35 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Fan terraces

Elevation: 5,800 to 6,800 feet

Average annual precipitation: 12 to 16 inches

Average annual air temperature: 40 to 45 degrees F

Frost-free season: 60 to 90 days

Characteristics of Justesen

Typical profile:

0 to 4 inches—brown loam

4 to 40 inches—grayish brown, pale brown, and light yellowish brown clay loam

40 to 60 inches—pale brown loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 7.5 to 11.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Drage

Typical profile:

0 to 3 inches—dark grayish brown gravelly loam

3 to 10 inches—brown gravelly loam

10 to 40 inches—brown and yellowish brown very gravelly clay loam

40 to 55 inches—white extremely gravelly loam

55 to 60 inches—light brownish gray extremely gravelly sandy loam

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 4.0 to 6.5 inches
Effective rooting depth: 60 inches or more
Runoff: Slow
Hazard of erosion: Slight

Dissimilar Soils

- A very deep, well drained soil that is very gravelly loam and in concave areas on fan terraces (10 percent)
- A well drained soil that is moderately deep to sand and gravel, very gravelly loam, and on fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Justesen and Drage—3e, nonirrigated
Range site: Justesen—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/
 bluebunch wheatgrass; Drage—ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big
 sagebrush/western wheatgrass

99—Kadletz very gravelly loam, 2 to 6 percent slopes

Composition

Kadletz and similar soils—90 percent
Dissimilar soil—10 percent

Setting

Position on landscape: Fan terraces
Elevation: 4,800 to 5,800 feet
Average annual precipitation: 6 to 8 inches
Average annual air temperature: 38 to 41 degrees F
Frost-free season: 60 to 100 days

Characteristics of Kadletz

Typical profile:

- 0 to 2 inches—pale brown very gravelly loam
- 2 to 5 inches—pale brown gravelly loam
- 5 to 8 inches—light yellowish brown very gravelly loam
- 8 to 12 inches—light yellowish brown very gravelly loamy sand
- 12 to 60 inches—very pale brown extremely gravelly loamy coarse sand

Depth class: Very deep
Drainage class: Somewhat excessively drained
Permeability: Moderate in the upper part and rapid in the lower part
Available water capacity: 2 to 3 inches
Effective rooting depth: 60 inches or more
Runoff: Slow
Hazard of water erosion: Slight

Dissimilar Soil

- A very deep, well drained soil that is extremely gravelly loam and in convex areas on fan terraces (10 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: 7s, nonirrigated, and 4s, irrigated

Range site: SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/ricegrass-needleandthread

100—Kehar gravelly loam, 8 to 20 percent slopes**Composition**

Kehar and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Hills

Elevation: 5,400 to 6,200 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 60 to 90 days

Characteristics of Kehar

Typical profile:

0 to 7 inches—yellowish brown gravelly loam

7 to 31 inches—yellowish brown gravelly silty clay and gravelly clay loam

31 to 60 inches—variegated very gravelly clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 6 to 10 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Dissimilar Soils

- Cronks soils on hills (10 percent)
- Venum soils on ridges (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

101—Kehar complex, 20 to 50 percent slopes**Composition**

Kehar and similar soils—55 percent

Kehar, eroded, and similar soils—20 percent

Dissimilar areas—25 percent

Setting

Position on landscape: Hills

Elevation: 5,400 to 6,200 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 40 to 42 degrees F

Frost-free season: 70 to 90 days

Characteristics of Kehar

Typical profile:

0 to 4 inches—pale brown very gravelly loam

4 to 34 inches—light yellowish brown gravelly clay loam, gravelly silty clay, and clay loam

34 to 45 inches—light yellowish brown very gravelly sandy clay loam

45 to 55 inches—light yellowish brown very gravelly clay loam

55 to 60 inches—brownish yellow very gravelly clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 6 to 10 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Characteristics of Kehar, Eroded

Typical profile:

0 to 16 inches—light yellowish brown, very pale brown, and white gravelly clay

16 to 60 inches—white clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 5 to 9 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Shrink-swell potential: High

Dissimilar Areas

- Gradco soils in convex areas on ridges (10 percent)
- Badland on lower hill slopes (10 percent)
- A very deep, well drained soil that is very gravelly clay and in convex areas on southwest-facing slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Kehar—6e, nonirrigated; Kehar, eroded—7e, nonirrigated

Range site: Kehar and Kehar, eroded—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

102—Ketchum very gravelly loam, 35 to 60 percent slopes

Composition

Ketchum and similar soils—80 percent

Dissimilar areas—20 percent

Setting

Position on landscape: North- and east-facing mountain slopes

Elevation: 6,800 to 8,000 feet

Average annual precipitation: 18 to 21 inches

Average annual air temperature: 36 to 38 degrees F

Frost-free season: 10 to 50 days

Characteristics of Ketchum

Typical profile:

1.5 inches to 0—slightly decomposed needles, twigs, leaves, and grass

0 to 10 inches—light brownish gray and pale brown very gravelly loam

10 to 36 inches—very pale brown very gravelly sandy loam

36 to 60 inches—light brownish gray extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 3.5 to 6.0 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Areas

- A well drained soil that is moderately deep to bedrock, very gravelly loam, and on mountainsides (10 percent)
- A very deep, well drained soil that is very gravelly loam over very gravelly clay and in slump areas on mountainsides (5 percent)
- Rock outcrop on mountainsides (5 percent)

Major Use

Woodland

Woodland

Forest habitat type: Douglas fir/pinegrass

Average site index for Douglas fir (100-year site curve): 45

Estimated average annual production of Douglas fir at the culmination of the mean annual increment (CMAI): 49 cubic feet per acre at 60 years of age

Interpretive Groups

Land capability classification: 7e, nonirrigated

103—Ketchum complex, 20 to 50 percent slopes

Composition

Ketchum, cold, and similar soils—70 percent

Ketchum and similar soils—15 percent

Dissimilar soils—15 percent

Setting

Position on landscape: North- and east-facing mountain slopes

Elevation: 6,500 to 8,900 feet

Average annual precipitation: 20 to 24 inches

Average annual air temperature: 36 to 38 degrees F

Frost-free season: 10 to 50 days

Characteristics of Ketchum, Cold

Typical profile:

1 inch to 0—slightly decomposed needles, twigs, and leaves

0 to 2 inches—pale brown cobbly loam

2 to 53 inches—grayish brown, pale brown, light gray, and very pale brown very gravelly loam and very gravelly sandy loam

53 to 60 inches—very pale brown extremely cobbly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 3.5 to 6.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Ketchum

Typical profile:

2 inches to 0—slightly decomposed needles, twigs, and grass

0 to 3 inches—brown cobbly loam

3 to 24 inches—very pale brown very gravelly loam and very gravelly sandy loam

24 to 60 inches—pale brown and light yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 3.5 to 6.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is very gravelly loam over very gravelly clay loam and on mountains near Sawmill and Mormon Canyons (10 percent)
- A well drained soil that is shallow to bedrock, very gravelly loam, and on steeper, higher lying mountain slopes (5 percent)

Major Use

Woodland

Woodland

Ketchum, cold

Forest habitat type: Subalpine fir/grouse huckleberry (blueberry)

Average site index for subalpine fir (100-year site curve): 55

Average site index for lodgepole pine (110-year site curve): 49

Average site index for Douglas fir (100-year site curve): 41

Estimated average annual production at the culmination of mean annual increment (CMAI): Subalpine fir—44 cubic feet per acre in 125 years; lodgepole pine—40 cubic feet per acre at 100 years of age; Douglas fir—45 cubic feet per acre at 60 years of age

Ketchum

Forest habitat type: Douglas fir/pinegrass

Average site index for Douglas fir (100-year site curve): 41

Average site index for lodgepole pine (110-year site curve): 49

Estimated average annual production at the culmination of mean annual increment (CMAI): Lodgepole pine—40 cubic feet per acre at 100 years of age; Douglas fir—45 cubic feet per acre at 60 years of age

Interpretive Groups

Land capability classification: Ketchum, cold, and Ketchum—6e, nonirrigated

104—Klug gravelly loam, low precipitation, 5 to 20 percent slopes

Composition

Klug and similar soils—85 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Concave areas on west-facing fan terraces

Elevation: 6,400 to 7,000 feet

Average annual precipitation: 13 to 15 inches

Average annual air temperature: 37 to 38 degrees F

Frost-free season: 40 to 60 days

Characteristics of Klug

Typical profile:

0 to 10 inches—brown gravelly loam

10 to 27 inches—brown and light brown very gravelly loam and very gravelly sandy loam

27 to 60 inches—pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Nurkey soils on upper fan terraces (10 percent)
- Surrect soils in convex areas on fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: LOAMY 12 TO 16 INCH PZ, mountain big sagebrush/bluebunch wheatgrass

105—Klug-Gaciba-Dacont complex, 20 to 70 percent slopes

Composition

*Klug and similar soils—*30 percent

*Gaciba and similar soils—*25 percent

*Dacont and similar soils—*20 percent

*Dissimilar areas—*25 percent

Setting

Position on landscape: Klug—north- and east-facing mountain slopes; Gaciba—convex ridges and near areas of Rock outcrop; Dacont—south- and west-facing mountain slopes

Elevation: 6,000 to 7,000 feet

Average annual precipitation: 12 to 16 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 50 to 70 days

Characteristics of Klug

Slope: 40 to 70 percent

Typical profile:

0 to 4 inches—dark grayish brown gravelly loam

4 to 20 inches—dark brown, brown, and light yellowish brown very gravelly loam

20 to 60 inches—light yellowish brown extremely gravelly sandy loam and extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Gaciba

Slope: 20 to 50 percent

Typical profile:

0 to 3 inches—dark brown cobbly loam

3 to 18 inches—brown and pale brown very gravelly loam

18 to 22 inches—indurated basalt

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 12 to 20 inches

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Dacont

Slope: 20 to 50 percent

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 28 inches—yellowish brown very gravelly loam

28 to 41 inches—brown extremely gravelly loam

41 to 60 inches—brown and pale brown extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Areas

- Custco soils on north- and east-facing slopes at an elevation of more than 6,000 feet (5 percent)
- A well drained soil that is moderately deep to bedrock, very gravelly loam, and in convex areas on south- and west-facing slopes (10 percent)
- Rock outcrop on mountainsides (5 percent)
- Zeebar soils on north- and east-facing slopes at an elevation of more than 6,000 feet (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Klug and Gaciba—7e, nonirrigated; Dacont—6e, nonirrigated

Range site: Klug—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue; Gaciba and Dacont—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

106—Klug-Povey complex, 30 to 60 percent slopes

Composition

*Klug and similar soils—*60 percent

*Povey and similar soils—*25 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Klug—linear to convex areas on all aspects of mountain slopes;

Povey—concave areas on north- and east-facing mountain slopes

Elevation: 6,000 to 7,900 feet

Average annual precipitation: 14 to 18 inches

Average annual air temperature: 36 to 38 degrees F

Frost-free season: 20 to 60 days

Characteristics of Klug

Typical profile:

0 to 4 inches—dark grayish brown gravelly loam

4 to 20 inches—dark brown, brown, and light yellowish brown very gravelly loam

20 to 60 inches—light yellowish brown extremely gravelly sandy loam and extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Povey

Typical profile:

0 to 5 inches—very dark grayish brown gravelly loam

5 to 25 inches—dark grayish brown very gravelly loam

25 to 60 inches—light yellowish brown very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Lag soils on mountainsides (5 percent)
- A well drained soil that is moderately deep to bedrock, very gravelly loam, and on mountainsides (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Klug and Povey—7e, nonirrigated

Range site: Klug—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue; Povey—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

107—Klug, low precipitation-Povey complex, 25 to 60 percent slopes

Composition

Klug and similar soils—55 percent

Povey and similar soils—25 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Klug—south- and southeast-facing mountain slopes; Povey—concave areas on south- and southeast-facing mountain slopes

Elevation: 7,000 to 8,500 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 20 to 40 days

Characteristics of Klug

Typical profile:

- 0 to 4 inches—dark grayish brown very gravelly loam
- 4 to 10 inches—brown very gravelly loam
- 10 to 60 inches—pale brown and light yellowish brown extremely gravelly loam and extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Povey

Typical profile:

- 0 to 5 inches—very dark grayish brown gravelly loam
- 5 to 25 inches—dark grayish brown very gravelly loam
- 25 to 60 inches—light yellowish brown very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Soils

- A very deep, well drained soil that is very gravelly loam over very gravelly clay loam over very gravelly loam and on mountains (10 percent)
- A well drained soil that is deep to bedrock, stony loam over very gravelly loam, and on ridges (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Klug and Povey—7e, nonirrigated

Range site: Klug—LOAMY 12 TO 16 INCH PZ, mountain big sagebrush/bluebunch wheatgrass; Povey—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

108—Klug-Zeebar complex, 20 to 50 percent slopes

Composition

Klug and similar soils—50 percent

Zeebar and similar soils—30 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Klug—south- and west-facing mountain slopes; Zeebar—north- and east-facing mountain slopes

Elevation: 6,500 to 8,000 feet
Average annual precipitation: 13 to 15 inches
Average annual air temperature: 35 to 37 degrees F
Frost-free season: 20 to 40 days

Characteristics of Klug

Typical profile:

0 to 4 inches—dark grayish brown gravelly loam
 4 to 10 inches—brown very gravelly loam
 10 to 60 inches—pale brown and light yellowish brown extremely gravelly loam and extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Zeebar

Typical profile:

0 to 4 inches—grayish brown gravelly loam
 4 to 30 inches—grayish brown and pale brown very gravelly loam
 30 to 60 inches—pale brown and brown extremely gravelly sandy clay loam and extremely gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Parkay soils in drainageways on mountains (10 percent)
- Zeale soils on north-facing slopes (5 percent)
- A well drained soil that is moderately deep to bedrock, very gravelly loam, and on south-facing mountain slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Klug—7e, nonirrigated; Zeebar—6e, nonirrigated

Range site: Klug—LOAMY 12 TO 16 INCH PZ, mountain big sagebrush/bluebunch wheatgrass; Zeebar—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass

109—Lacrol-Friedman association, 15 to 35 percent slopes

Composition

Lacrol and similar soils—65 percent

Friedman and similar soils—20 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Lacrol—linear to convex areas on south- and west-facing hill slopes; Friedman—concave areas on north- and east-facing hill slopes

Elevation: 6,000 to 6,800 feet

Average annual precipitation: 16 to 18 inches

Average annual air temperature: 36 to 39 degrees F

Frost-free season: 30 to 50 days

Characteristics of Lacrol

Typical profile:

0 to 6 inches—grayish brown gravelly loam

6 to 60 inches—brown, very pale brown, light olive, light brownish gray, and pale brown clay and gravelly clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 6.5 to 11.0 inches

Effective rooting depth: 5 to 10 inches

Runoff: Medium

Hazard of water erosion: Moderate

Depth to perched water table: 3 to 8 inches in March through April

Shrink-swell potential: High

Characteristics of Friedman

Typical profile:

0 to 4 inches—very dark grayish brown gravelly loam

4 to 19 inches—very dark grayish brown gravelly loam

19 to 60 inches—brown, strong brown, and red very gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Lacrol soils in seep areas on hills (10 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly clay loam and in drainageways on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Lacrol—6e, nonirrigated; Friedman—4e, nonirrigated

Range site: Lacrol—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue; Friedman—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

110—Lag very cobbly loam, 20 to 40 percent slopes

Composition

Lag and similar soils—80 percent

Dissimilar areas—20 percent

Setting

Position on landscape: Mountains

Elevation: 6,500 to 8,000 feet

Average annual precipitation: 20 to 24 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 30 to 60 days

Characteristics of Lag

Typical profile:

1 inch to 0—slightly decomposed needles and twigs

0 to 2 inches—grayish brown very cobbly loam

2 to 44 inches—brown, pale brown, and very pale brown very cobbly loam

44 to 60 inches—very pale brown extremely cobbly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 2.5 to 4.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A well drained soil that is moderately deep to bedrock, very gravelly loam, and on mountains (10 percent)
- Rock outcrop and Rubble land on mountains (10 percent)

Major Use

Woodland

Woodland

Forest habitat type: Douglas fir/pinegrass

Average site index for Douglas fir (100-year site curve): 40

Estimated average annual production of Douglas fir at the culmination of the mean annual increment (CMAI): 44 cubic feet per acre at 60 years of age

Interpretive Groups

Land capability classification: 6e, nonirrigated

111—Lag very cobbly loam, 40 to 70 percent slopes

Composition

Lag and similar soils—75 percent

Dissimilar areas—25 percent

Setting

Position on landscape: North- and east-facing mountain slopes

Elevation: 6,000 to 8,000 feet

Average annual precipitation: 20 to 24 inches
Average annual air temperature: 35 to 38 degrees F
Frost-free season: 30 to 60 days

Characteristics of Lag

Typical profile:

- 2 inches to 0—slightly decomposed needles and twigs
- 0 to 10 inches—dark brown very cobbly loam
- 10 to 35 inches—yellowish brown and pale brown extremely gravelly loam
- 35 to 61 inches—light brownish gray extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 2.5 to 4.0 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Areas

- Povey soils in concave areas on mountains (5 percent)
- A well drained soil that is moderately deep to bedrock, very gravelly loam, and on mountains (10 percent)
- A very deep, well drained soil that is light-colored very gravelly loam and at higher elevations on mountains (5 percent)
- Rock outcrop on mountains (5 percent)

Major Use

Woodland

Woodland

Forest habitat type: Douglas fir/pinegrass

Average site index for Douglas fir (100-year site curve): 40

Estimated average annual production of Douglas fir at the culmination of the mean annual increment (CMAI): 44 cubic feet per acre at 60 years of age

Interpretive Groups

Land capability classification: 7e, nonirrigated

112—Lag-Klug association, 50 to 70 percent slopes

Composition

*Lag and similar soils—*70 percent

*Klug and similar soils—*15 percent

*Dissimilar areas—*15 percent

Lag

Setting

Position on landscape: Linear to concave areas on north- and east-facing mountain slopes

Elevation: 6,300 to 8,000 feet

Average annual precipitation: 20 to 24 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 30 to 60 days

Soil characteristics*Typical profile:*

- 1 inch to 0—slightly decomposed needles and twigs
- 0 to 2 inches—grayish brown very cobbly loam
- 2 to 44 inches—brown, pale brown, and very pale brown very cobbly loam
- 44 to 60 inches—very pale brown extremely cobbly sandy loam

Depth class: Very deep*Drainage class:* Well drained*Permeability:* Moderately rapid*Available water capacity:* 2.5 to 4.0 inches*Effective rooting depth:* 60 inches or more*Runoff:* Rapid*Hazard of water erosion:* Severe***Klug*****Setting***Position on landscape:* Convex areas on south- and west-facing mountain slopes*Elevation:* 6,000 to 8,000 feet*Average annual precipitation:* 13 to 16 inches*Average annual air temperature:* 36 to 38 degrees F*Frost-free season:* 20 to 60 days**Soil characteristics***Typical profile:*

- 0 to 4 inches—dark grayish brown gravelly loam
- 4 to 20 inches—dark brown, brown, and light yellowish brown very gravelly loam
- 20 to 60 inches—light yellowish brown extremely gravelly sandy loam and extremely gravelly loam

Depth class: Very deep*Drainage class:* Well drained*Permeability:* Moderate*Available water capacity:* 2.5 to 5.5 inches*Effective rooting depth:* 60 inches or more*Runoff:* Rapid*Hazard of water erosion:* Severe***Dissimilar Areas***

- A well drained soil that is shallow to bedrock, very gravelly loam, and near areas of Rock outcrop on mountains (5 percent)
- A well drained soil that is moderately deep to bedrock, very gravelly loam, and on mountains (5 percent)
- Rock outcrop on mountains (5 percent)

Major Uses

Lag—woodland; Klug—rangeland

Woodland**Lag***Forest habitat type:* Douglas fir/pinegrass*Average site index for Douglas fir (100-year site curve):* 40*Estimated average annual production of Douglas fir at the culmination of the mean annual increment (CMAI):* 44 cubic feet per acre at 60 years of age***Interpretive Groups****Land capability classification:* Lag and Klug—7e, nonirrigated

Range site: Klug—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

113—Langer gravelly sandy loam, 10 to 40 percent slopes

Composition

Langer and similar soils—75 percent

Dissimilar areas—25 percent

Setting

Position on landscape: Hills and mountains

Elevation: 6,400 to 6,800 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 34 to 37 degrees F

Frost-free season: 15 to 40 days

Characteristics of Langer

Typical profile:

0 to 9 inches—dark grayish brown and brown gravelly sandy loam

9 to 13 inches—brown very gravelly coarse sandy loam

13 to 60 inches—pale brown and very pale brown very gravelly loamy coarse sand and extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 3.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Areas

- A very deep, somewhat excessively drained soil that is light-colored very gravelly sandy loam and on hills (10 percent)
- A well drained soil that is moderately deep to bedrock, very gravelly sandy loam, and on mountain slopes of more than 50 percent (5 percent)
- Rock outcrop on hills and mountains (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: SOUTH SLOPE LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

114—Leadore gravelly loam, 2 to 6 percent slopes

Composition

Leadore and similar soils—90 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 5,900 to 6,400 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 39 degrees F

Frost-free season: 50 to 75 days

Characteristics of Leadore

Typical profile:

0 to 3 inches—yellowish brown gravelly loam

3 to 16 inches—pale brown gravelly loam

16 to 60 inches—very pale brown and multicolored extremely cobbly loamy sand and extremely cobbly sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Wiggleton soils in concave areas on upper fan terraces (5 percent)
- A very deep, well drained soil that is extremely cobbly loam and in convex areas bordering abandoned drainage channels (5 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated, and 4e, irrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

115—Leatherman-Arbus complex, 2 to 6 percent slopes

Composition

Leatherman and similar soils—65 percent

Arbus and similar soils—35 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,400 to 6,800 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free season: 30 to 60 days

Characteristics of Leatherman

Typical profile:

0 to 11 inches—pale brown and yellowish brown very gravelly loam

11 to 16 inches—light brownish gray hardpan

16 to 60 inches—light gray extremely gravelly loamy sand

Depth class: Shallow to a hardpan

Drainage class: Well drained
Permeability: Moderate above the hardpan and rapid below it
Available water capacity: 1 to 2 inches
Effective rooting depth: 9 to 15 inches
Runoff: Slow
Hazard of water erosion: Slight

Characteristics of Arbus

Typical profile:
 0 to 3 inches—brown gravelly loam
 3 to 12 inches—brown very gravelly loam
 12 to 60 inches—light brownish gray extremely gravelly loamy coarse sand
Depth class: Very deep
Drainage class: Somewhat excessively drained
Permeability: Moderate in the upper part and rapid in the lower part
Available water capacity: 2.5 to 3.5 inches
Effective rooting depth: 10 to 20 inches
Runoff: Slow
Hazard of water erosion: Slight

Major Use

Rangeland

Interpretive Groups

Land capability classification: Leatherman—7s, nonirrigated; Arbus—6s, nonirrigated
Range site: Leatherman and Arbus—SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ,
 low sagebrush/bluebunch wheatgrass

116—Leatherman-Bluedome complex, 2 to 8 percent slopes

Composition

*Leatherman and similar soils—*45 percent
*Bluedome and similar soils—*30 percent
*Dissimilar soils—*25 percent

Setting

Position on landscape: Convex areas on fan terraces
Elevation: 6,300 to 6,600 feet
Average annual precipitation: 8 to 10 inches
Average annual air temperature: 38 to 40 degrees F
Frost-free season: 40 to 60 days

Characteristics of Leatherman

Typical profile:
 0 to 11 inches—pale brown and yellowish brown very gravelly loam
 11 to 16 inches—light brownish gray hardpan
 16 to 60 inches—light gray extremely gravelly loamy sand
Depth class: Shallow to a hardpan
Drainage class: Well drained
Permeability: Moderate above the hardpan and rapid below it
Available water capacity: 1 to 2 inches
Effective rooting depth: 9 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Bluedome

Typical profile:

0 to 3 inches—grayish brown gravelly loam

3 to 22 inches—brown and white gravelly sandy loam

22 to 30 inches—very pale brown hardpan

30 to 60 inches—very pale brown extremely gravelly sandy loam

Depth class: Moderately deep to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Available water capacity: 2.0 to 7.5 inches

Effective rooting depth: 20 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Goosebury soils on south-facing ridges (5 percent)
- Sparmo soils in mounds on fan terraces (5 percent)
- Zer soils on south-facing slopes of 6 to 35 percent (5 percent)
- Zeale soils on north-facing slopes of 6 to 35 percent (5 percent)
- A well drained soil that is shallow to a duripan over bedrock, very gravelly loam, and on ridges (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Leatherman—7s, nonirrigated; Bluedome—6e, nonirrigated

Range site: Leatherman—SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ, low sagebrush/bluebunch wheatgrass; Bluedome—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

117—Lemco-Friedman complex, 20 to 50 percent slopes

Composition

Lemco and similar soils—65 percent

Friedman and similar soils—25 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Lemco—north- and east-facing mountain slopes; Friedman—east-facing mountain slopes

Elevation: 6,500 to 7,500 feet

Average annual precipitation: 20 to 22 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 30 to 60 days

Characteristics of Lemco

Typical profile:

1 inch to 0—slightly decomposed needles and twigs

0 to 11 inches—dark grayish brown loam

11 to 36 inches—brown very gravelly clay
 36 to 48 inches—brown gravelly clay loam
 48 to 60 inches—dark yellowish brown gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 5.5 to 7.5 inches

Effective rooting depth: 10 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Characteristics of Friedman

Typical profile:

0 to 2 inches—dark brown gravelly loam

2 to 18 inches—dark brown and brown very gravelly loam

18 to 37 inches—brown very gravelly clay loam

37 to 60 inches—strong brown very gravelly clay and extremely gravelly clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soil

- A very deep, well drained soil that is very stony loam over very gravelly clay and on mountains (10 percent)

Major Uses

Lemco—woodland; Friedman—rangeland

Woodland

Lemco

Forest habitat type: Douglas fir/pinegrass

Average site index for Douglas fir (100-year site curve): 42

Estimated average annual production of Douglas fir at the culmination of the mean annual increment (CMAI): 46 cubic feet per acre at 60 years of age

Interpretive Groups

Land capability classification: Lemco and Friedman—6e, nonirrigated

Range site: Friedman—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

118—Lemhi-Copperbasin-Lilylake complex, 0 to 2 percent slopes

Composition

*Lemhi and similar soils—*40 percent

*Copperbasin and similar soils—*20 percent

*Lilylake and similar soils—*15 percent

*Dissimilar soils—*25 percent

Setting

Position on landscape: Lemhi—linear areas on flood plains; Copperbasin—convex areas on flood plains; Lilylake—linear to concave areas on flood plains

Elevation: 5,000 to 5,600 feet

Average annual precipitation: 10 to 14 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 50 to 70 days

Characteristics of Lemhi

Typical profile:

3 inches to 0—slightly decomposed roots, leaves, and stems

0 to 13 inches—dark gray loam

13 to 21 inches—grayish brown loam

21 to 24 inches—grayish brown loamy sand

24 to 60 inches—multicolored extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 20 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 12 to 18 inches in April through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Copperbasin

Typical profile:

0 to 6 inches—grayish brown gravelly loam

6 to 14 inches—grayish brown extremely gravelly loamy sand

14 to 27 inches—gray extremely cobbly loamy sand

27 to 60 inches—multicolored extremely cobbly coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 42 inches in March through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Lilylake

Typical profile:

0 to 10 inches—very dark grayish brown and dark grayish brown muck

10 to 60 inches—multicolored extremely cobbly coarse sand

Depth class: Very deep

Drainage class: Very poorly drained

Permeability: Rapid

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 10 to 16 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 inches above the surface to a depth of 6 inches below the surface in January through December

Periods of flooding: Frequency—frequent; duration—long; months—January through June

Dissimilar Soils

- Leecreek soils in concave areas on flood plains (10 percent)
- Wiskisprings soils in concave areas on flood plains (10 percent)
- A very deep, poorly drained soil that is very gravelly loam and on low stream terraces with slopes of 2 to 6 percent (5 percent)

Major Uses

Irrigated pastureland and hayland, and rangeland

Interpretive Groups

Land capability classification: Lemhi—4w, nonirrigated and irrigated; Copperbasin—4s, nonirrigated and irrigated; Lilylake—5w, nonirrigated and irrigated

Range site: Lemhi—SEMIWET MEADOW; Copperbasin—SEMIWET MEADOW, sedges; Lilylake—RIPARIAN WET MEADOW, willow/sedges

119—Lemroi-Leecreek complex, 0 to 3 percent slopes

Composition

Lemroi and similar soils—45 percent

Leecreek and similar soils—40 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Lemroi—linear to convex areas on flood plains and stream terraces; Leecreek—concave areas on flood plains and stream terraces

Elevation: 5,800 to 6,400 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 50 to 70 days

Characteristics of Lemroi

Typical profile:

3 inches to 0—moderately decomposed roots and grass

0 to 8 inches—dark gray silt loam

8 to 15 inches—dark gray silt loam and gravelly silt loam

15 to 23 inches—light gray extremely gravelly loam

23 to 60 inches—gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 20 to 30 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 18 inches in April through October

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Leecreek

Typical profile:

- 2 inches to 0—moderately decomposed grass and roots
- 0 to 3 inches—grayish brown and light brownish gray silt loam
- 3 to 18 inches—light brownish gray gravelly silt loam and very gravelly silt loam
- 18 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3 to 4 inches

Effective rooting depth: 13 to 22 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 12 to 18 inches in April through October

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soils

- Grandjean soils in linear areas on flood plains (5 percent)
- Sancrane soils in concave positions on flood plains (5 percent)
- Thosand soils on lower fan terraces (5 percent)

Major Uses

Irrigated pastureland and hayland

Interpretive Groups

Land capability classification: Lemroi and Leecreek—4w, nonirrigated and irrigated

Range site: Lemroi and Leecreek—not assigned

120—Lemroi-Leecreek-Grandjean complex, 0 to 3 percent slopes

Composition

Lemroi and similar soils—40 percent

Leecreek and similar soils—30 percent

Grandjean and similar soils—20 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Lemroi—linear to convex areas on flood plains and stream terraces; Leecreek—flood plains and stream terraces; Grandjean—linear to concave areas on flood plains and stream terraces

Elevation: 4,900 to 6,400 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free season: 50 to 70 days

Characteristics of Lemroi

Typical profile:

- 3 inches to 0—moderately decomposed roots and grass
- 0 to 8 inches—dark gray silt loam
- 8 to 15 inches—dark gray silt loam and gravelly silt loam

15 to 23 inches—light gray extremely gravelly loam
 23 to 60 inches—gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 20 to 30 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 18 inches in April through October

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Leecreek

Typical profile:

2 inches to 0—moderately decomposed grass and roots

0 to 3 inches—grayish brown and light brownish gray silt loam

3 to 18 inches—light brownish gray gravelly silt loam and very gravelly silt loam

18 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3 to 4 inches

Effective rooting depth: 13 to 22 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 12 to 18 inches in April through October

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Grandjean

Typical profile:

0 to 6 inches—black mucky peat

6 to 27 inches—very dark brown muck

27 to 60 inches—gray and greenish gray extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Very poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 6.5 to 9.0 inches

Effective rooting depth: 20 to 36 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 inches above the surface to a depth of 6 inches below the surface in January through December

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Dissimilar Soils

- Sancrane soils in concave areas on flood plains and stream terraces (10 percent)

Major Uses

Irrigated pastureland and hayland, and rangeland

Interpretive Groups

Land capability classification: Lemroi and Leecreek—4w, nonirrigated and irrigated;
 Grandjean—5w, nonirrigated and irrigated

Range site: Lemroi and Leecreek—not assigned; Grandjean—WET MEADOW (MUCK), willow/sedges

121—Lesbut gravelly loam, 2 to 4 percent slopes

Composition

Lesbut and similar soils—85 percent
Dissimilar soils—15 percent

Setting

Position on landscape: Fan terraces
Elevation: 6,200 to 6,600 feet
Average annual precipitation: 11 to 12 inches
Average annual air temperature: 38 to 40 degrees F
Frost-free season: 65 to 75 days

Characteristics of Lesbut

Typical profile:

- 0 to 4 inches—brown gravelly loam
- 4 to 18 inches—brown gravelly loam
- 18 to 60 inches—multicolored stratified extremely gravelly loamy sand to extremely cobbly coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Bunting soils on stream terraces (5 percent)
- Goosebury soils on higher fan terraces (10 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated, and 4s, irrigated

Range site: SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ, low sagebrush/bluebunch wheatgrass

122—Lilylake-Grandjean complex, 0 to 2 percent slopes

Composition

Lilylake and similar soils—50 percent
Grandjean and similar soils—25 percent
Dissimilar soils—25 percent

Setting

Position on landscape: Lilylake—flood plains; Grandjean—concave areas on flood plains

Elevation: 6,300 to 7,300 feet
Average annual precipitation: 12 to 16 inches
Average annual air temperature: 34 to 38 degrees F
Frost-free season: 5 to 30 days

Characteristics of Lilylake

Typical profile:

0 to 12 inches—black and very dark brown muck
 12 to 15 inches—brown sand
 15 to 60 inches—light brownish gray extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Very poorly drained

Permeability: Rapid

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 10 to 16 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 inches above the surface to a depth of 6 inches below the surface in January through December

Periods of flooding: Frequency—frequent; duration—long; months—January through June

Characteristics of Grandjean

Typical profile:

0 to 6 inches—black mucky peat
 6 to 27 inches—very dark brown muck
 27 to 60 inches—gray and greenish gray extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Very poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 6.5 to 9.0 inches

Effective rooting depth: 20 to 36 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 inches above the surface to a depth of 6 inches below the surface in January through December

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Dissimilar Soils

- Redfish soils in convex areas on flood plains (10 percent)
- Wiskisprings soils on flood plains (5 percent)
- A very deep, poorly drained soil that is hemic material over clay loam and on flood plains (5 percent)
- A very deep soil that is sapric material over sand and on flood plains (5 percent)

Major Uses

Irrigated pastureland, rangeland, and wildlife habitat

Interpretive Groups

Land capability classification: Lilylake and Grandjean—5w, nonirrigated and irrigated

Range site: Lilylake and Grandjean—WET MEADOW (MUCK), willow/sedges

123—Mahaffey-Copperbasin-Wiskisprings complex, 0 to 2 percent slopes

Composition

Mahaffey and similar soils—40 percent
Copperbasin and similar soils—20 percent
Wiskisprings and similar soils—20 percent
Dissimilar soils—20 percent

Setting

Position on landscape: Mahaffey—linear to concave areas on flood plains;
 Copperbasin—convex areas on flood plains; Wiskisprings—concave areas on
 flood plains
Elevation: 4,500 to 6,000 feet
Average annual precipitation: 10 to 14 inches
Average annual air temperature: 38 to 42 degrees F
Frost-free season: 50 to 70 days

Characteristics of Mahaffey

Typical profile:

0 to 12 inches—dark grayish brown loam
 12 to 23 inches—light brownish gray loam
 23 to 34 inches—gray extremely gravelly sandy loam
 34 to 61 inches—multicolored extremely cobbly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 4 to 6 inches

Effective rooting depth: 30 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 24 to 42 inches in April through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through
 June

Characteristics of Copperbasin

Typical profile:

0 to 7 inches—dark grayish brown gravelly fine sandy loam
 7 to 14 inches—dark grayish brown very gravelly sandy loam
 14 to 60 inches—grayish brown extremely gravelly loamy coarse sand and
 extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 42 inches in March through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through
 June

Characteristics of Wiskisprings

Typical profile:

- 0 to 8 inches—dark brown silt loam
- 8 to 49 inches—dark grayish brown, brown, grayish brown, and olive silt loam
- 49 to 54 inches—olive gravelly loam
- 54 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 9 to 10 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in April through July

Periods of flooding: Frequency—frequent; duration—brief; months—January through June

Dissimilar Soils

- Redfish soils on flood plains (5 percent)
- A very deep, very poorly drained soil that is very gravelly sandy loam over extremely gravelly loamy sand and on flood plains (10 percent)
- A very deep, well drained soil that is silt loam over extremely gravelly loamy sand and on flood plains (5 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: Mahaffey and Copperbasin—4s, nonirrigated and irrigated; Wiskisprings—5w, nonirrigated and irrigated

Range site: Mahaffey—RIVERBOTTOM 10 TO 16 INCH PZ, black cottonwood/western wheatgrass; Copperbasin—SEMIWET MEADOW, sedges; Wiskisprings—SEMIWET MEADOW

124—Meegernot gravelly loam, 15 to 40 percent slopes

Composition

Meegernot and similar soils—75 percent

Dissimilar soils—25 percent

Setting

Position on landscape: Mountains

Elevation: 7,200 to 9,200 feet

Average annual precipitation: 16 to 19 inches

Average annual air temperature: 34 to 38 degrees F

Frost-free season: 10 to 30 days

Characteristics of Meegernot

Typical profile:

- 0 to 16 inches—very dark grayish brown and dark brown gravelly loam
- 16 to 21 inches—brown very gravelly loam

21 to 41 inches—yellowish brown and dark yellowish brown extremely gravelly loam

41 to 58 inches—light yellowish brown extremely gravelly clay loam

58 to 66 inches—light yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate and moderately slow in the upper part and rapid in the lower part

Available water capacity: 4.5 to 6.0 inches

Effective rooting depth: 40 to 60 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Adek soils on ridges (5 percent)
- Zeelnot soils in convex areas on northwest- and west-facing mountain slopes (10 percent)
- Zeelnot soils in convex areas on south- and southwest-facing mountain slopes (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

125—Meegero-Zeale complex, 15 to 45 percent slopes

Composition

*Meegero and similar soils—*60 percent

*Zeale and similar soils—*25 percent

*Dissimilar areas—*15 percent

Setting

Position on landscape: Meegero—linear to concave areas on mountains; Zeale—convex areas on south- and west-facing mountain slopes

Elevation: 7,200 to 8,600 feet

Average annual precipitation: 14 to 20 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free season: 30 to 40 days

Characteristics of Meegero

Typical profile:

0 to 10 inches—dark brown loam

10 to 19 inches—dark brown gravelly loam

19 to 29 inches—light yellowish brown very gravelly loam

29 to 60 inches—very pale brown and light gray extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 6 inches

Effective rooting depth: 5 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Zeale

Typical profile:

0 to 8 inches—dark grayish brown gravelly loam

8 to 60 inches—brown, light brown, and pale brown very gravelly loam and extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.0 to 7.5 inches

Effective rooting depth: 5 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A well drained soil that is moderately deep to bedrock, very gravelly loam, and on ridges (5 percent)
- A very deep, well drained soil that is very gravelly loam over very gravelly loamy sand and on mountainsides (5 percent)
- Rock outcrop on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Meegero and Zeal—6e, nonirrigated

Range site: Meegero—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Zeale—CLAYEY 13 TO 16 INCH PZ, low sagebrush/Idaho fescue

126—Millhi silt loam, 2 to 4 percent slopes

Composition

Millhi and similar soils—90 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Lacustrine terraces

Elevation: 3,900 to 5,000 feet

Average annual precipitation: 7 to 10 inches

Average annual air temperature: 42 to 45 degrees F

Frost-free season: 75 to 100 days

Characteristics of Millhi

Typical profile:

0 to 4 inches—pale brown silt loam

4 to 9 inches—light gray silt loam

9 to 60 inches—light brownish gray, light gray, very pale brown, and pale brown clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 6 to 12 inches

Effective rooting depth: 1 to 9 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to perched water table: At the surface to a depth of 6 inches below the surface
in February through April

Shrink-swell potential: High

Dissimilar Soils

- Zer soils on lower terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: CLAYEY 7 TO 10 INCH PZ, Wyoming big sagebrush-shadscale saltbush/
bluebunch wheatgrass

127—Millhi gravelly silt loam, 5 to 15 percent slopes

Composition

*Millhi and similar soils—*85 percent

*Dissimilar areas—*15 percent

Setting

Position on landscape: Hills and lacustrine terraces

Elevation: 4,200 to 5,200 feet

Average annual precipitation: 7 to 10 inches

Average annual air temperature: 42 to 44 degrees F

Frost-free season: 75 to 90 days

Characteristics of Millhi

Typical profile:

0 to 2 inches—brown gravelly silt loam

2 to 4 inches—pale brown gravelly silt loam

4 to 48 inches—pinkish gray, brown, pale brown, brownish yellow, and light
yellowish brown clay loam, clay, and gravelly clay

48 to 60 inches—pale yellow clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 6 to 12 inches

Effective rooting depth: 1 to 9 inches

Runoff: Medium

Hazard of water erosion: Moderate

Depth to perched water table: At the surface to a depth of 6 inches below the surface
in February through April

Shrink-swell potential: High

Dissimilar Areas

- Badland on hills (5 percent)
- A very deep, well drained soil that is gravelly clay and on eroded terraces (5 percent)

- A very deep, well drained soil that is stony loam over clay loam over clay and on terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: CLAYEY 7 TO 10 INCH PZ, Wyoming big sagebrush-shadscale saltbush/bluebunch wheatgrass

128—Millhi complex, 10 to 30 percent slopes

Composition

*Millhi and similar soils—*45 percent

*Millhi, eroded, and similar soils—*30 percent

*Dissimilar areas—*25 percent

Setting

Position on landscape: Millhi—concave areas on north-facing hill slopes; Millhi, eroded—south-facing hill slopes

Elevation: 4,000 to 5,200 feet

Average annual precipitation: 7 to 10 inches

Average annual air temperature: 42 to 45 degrees F

Frost-free season: 75 to 100 days

Characteristics of Millhi

Slope: 10 to 25 percent

Typical profile:

0 to 2 inches—brown gravelly silt loam

2 to 4 inches—pale brown gravelly silt loam

4 to 48 inches—pinkish gray, pale brown, brownish yellow, and light yellowish brown clay, clay loam, and gravelly clay

48 to 60 inches—pale yellow clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 6 to 12 inches

Effective rooting depth: 1 to 9 inches

Runoff: Medium

Hazard of water erosion: Moderate

Depth to perched water table: At the surface to a depth of 6 inches below the surface in February through April

Shrink-swell potential: High

Characteristics of Millhi, Eroded

Slope: 20 to 30 percent

Typical profile:

0 to 1 inch—pale brown gravelly clay

1 to 60 inches—light yellowish brown and pale brown clay and clay loam

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 6 to 12 inches

Effective rooting depth: 1 to 9 inches

Runoff: Rapid

Hazard of water erosion: Severe

Depth to perched water table: At the surface to a depth of 6 inches below the surface
in February through April

Shrink-swell potential: High

Dissimilar Areas

- Badland on hills (10 percent)
- A very deep, well drained soil that is very cobbly silt loam over gravelly clay loam and on ridges (10 percent)
- A very deep, moderately well drained soil that is red gravelly silt loam over gravelly clay and on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Millhi—6e, nonirrigated; Millhi, eroded—7e, nonirrigated

Range site: Millhi—CLAYEY 7 TO 10 INCH PZ, Wyoming big sagebrush-shadscale saltbush/bluebunch wheatgrass; Millhi, eroded—FRAGILE LANDS 7 TO 9 INCH PZ, shadscale saltbush/Salmon wildrye

129—Millhi-Badland complex, 5 to 25 percent slopes

Composition

*Millhi and similar soils—*50 percent

*Badland—*30 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Millhi—linear to convex areas on northeast-facing hill slopes;
Badland—hills

Elevation: 4,400 to 5,200 feet

Average annual precipitation: 7 to 10 inches

Average annual air temperature: 42 to 45 degrees F

Frost-free season: 75 to 100 days

Characteristics of Millhi

Typical profile:

0 to 2 inches—brown gravelly silt loam

2 to 4 inches—pale brown gravelly silt loam

4 to 48 inches—pinkish gray, pale brown, brownish yellow, and light yellowish
brown clay, clay loam, and gravelly clay

48 to 60 inches—pale yellow clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 6 to 12 inches

Effective rooting depth: 1 to 9 inches

Runoff: Medium

Hazard of water erosion: Moderate

Depth to perched water table: At the surface to a depth of 6 inches below the surface in February through April
Shrink-swell potential: High

Characteristics of Badland

Description: Nearly barren, fragile land in areas where intermittent streams have eroded escarpments, exposing soft bentonite clay
Position on landscape: Terrace escarpments and adjacent low areas
Vegetation: Little, if any
Runoff: Rapid or very rapid
Hazard of water erosion: Severe or very severe

Dissimilar Soils

- A very deep, well drained soil that is gravelly silt loam over gravelly clay and on very steep hills (5 percent)
- A very deep, moderately well drained soil that is red gravelly silt loam over gravelly clay and on hills (5 percent)
- A very deep, well drained soil that is gravelly silt loam over loam and in concave areas on hills (5 percent)
- A very deep, well drained soil that is stony loam and on ridgetops (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Millhi—6e, nonirrigated; Badland—8
Range site: Millhi—CLAYEY 7 TO 10 INCH PZ, Wyoming big sagebrush-shadscale saltbush/bluebunch wheatgrass

130—Millhi-Lacrol association, 15 to 35 percent slopes

Composition

Millhi and similar soils—65 percent
Lacrol and similar soils—25 percent
Dissimilar areas—10 percent

Millhi

Setting

Position on landscape: South- and west-facing hill slopes
Elevation: 4,500 to 5,200 feet
Average annual precipitation: 8 to 10 inches
Average annual air temperature: 42 to 45 degrees F
Frost-free season: 80 to 100 days

Soil characteristics

Typical profile:

- 0 to 2 inches—brown gravelly silt loam
- 2 to 4 inches—pale brown gravelly silt loam
- 4 to 48 inches—pinkish gray, pale brown, brownish yellow, and light yellowish brown clay, clay loam, and gravelly clay
- 48 to 60 inches—pale yellow clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 6 to 12 inches

Effective rooting depth: 1 to 9 inches

Runoff: Medium

Hazard of water erosion: Moderate

Depth to perched water table: At the surface to a depth of 6 inches below the surface in February through April

Shrink-swell potential: High

Lacrol

Setting

Position on landscape: North- and east-facing hill slopes

Elevation: 4,500 to 5,200 feet

Average annual precipitation: 13 to 15 inches

Average annual air temperature: 42 to 44 degrees F

Frost-free season: 70 to 100 days

Soil characteristics

Typical profile:

0 to 2 inches—brown silt loam

2 to 7 inches—brown clay loam

7 to 60 inches—brown and light brown clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 6.5 to 11.0 inches

Effective rooting depth: 5 to 10 inches

Runoff: Medium

Hazard of water erosion: Moderate

Depth to perched water table: 3 to 8 inches in March through April

Shrink-swell potential: High

Dissimilar Areas

- A very deep, well drained soil that is stony silt loam over gravelly clay and on ridges (5 percent)
- Badland on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Millhi and Lacrol—6e, nonirrigated

Range site: Millhi—CLAYEY 7 TO 10 INCH PZ, Wyoming big sagebrush-shadscale saltbush/bluebunch wheatgrass; Lacrol—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

131—Misfire-Pattee-Dawtonia complex, 20 to 45 percent slopes

Composition

Misfire and similar soils—35 percent

Pattee and similar soils—25 percent

Dawtonia and similar soils—20 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Misfire—linear to concave areas on terrace side slopes;
 Pattee—linear to concave areas on stream terraces; Dawtonia—linear to concave areas on fan terraces
Elevation: 4,000 to 5,500 feet
Average annual precipitation: 8 to 11 inches
Average annual air temperature: 38 to 42 degrees F
Frost-free season: 75 to 100 days

Characteristics of Misfire

Slope: 20 to 45 percent
Typical profile:
 0 to 3 inches—yellowish brown silt loam
 3 to 12 inches—light yellowish brown gravelly silt loam
 12 to 17 inches—light gray very gravelly sandy loam
 17 to 60 inches—very pale brown extremely gravelly sandy loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 4.5 to 7.5 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Pattee

Slope: 20 to 30 percent
Typical profile:
 0 to 4 inches—light yellowish brown silt loam
 4 to 25 inches—light yellowish brown silt loam and loam
 25 to 49 inches—light yellowish brown and very pale brown loam and silt loam
 49 to 60 inches—very pale brown gravelly loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 9 to 11 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Dawtonia

Slope: 20 to 45 percent
Typical profile:
 0 to 4 inches—brown very gravelly loam
 4 to 11 inches—brown very gravelly clay loam
 11 to 60 inches—yellowish brown and pale brown extremely gravelly loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 3.5 to 4.5 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Soils

- Dacont soils on alluvial fans (5 percent)
- Perreau soils on stream terraces (5 percent)
- Snowslide soils on fan terraces (5 percent)
- Venum soils on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Misfire and Pattee—6e, nonirrigated; Dawtonia—7e, nonirrigated

Range site: Misfire and Dawtonia—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Pattee—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

132—Mitring-Holinrock complex, 15 to 40 percent slopes

Composition

Mitring and similar soils—50 percent

Holinrock and similar soils—35 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Mitring—south-facing slopes and convex areas on north-facing slopes of hills and ridges; Holinrock—north- and east-facing slopes of hills and ridges

Elevation: 5,300 to 6,000 feet

Average annual precipitation: 6 to 10 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free season: 60 to 90 days

Characteristics of Mitring

Typical profile:

0 to 3 inches—pale brown very gravelly loam

3 to 10 inches—light yellowish brown very gravelly loam

10 to 30 inches—very pale brown extremely gravelly sandy loam

30 to 40 inches—moderately cemented basalt

Depth class: Moderately deep to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 25 to 35 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Holinrock

Typical profile:

0 to 2 inches—brown gravelly loam

2 to 6 inches—yellowish brown very gravelly loam

6 to 24 inches—pale brown very gravelly loam

24 to 29 inches—yellowish brown extremely gravelly loam

29 to 33 inches—indurated rhyodacite

Depth class: Moderately deep to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.5 to 3.5 inches

Effective rooting depth: 21 to 35 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- Sactus soils on ridgetops (10 percent)
- Rock outcrop in convex areas on side slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Mitring—7e, nonirrigated; Holinrock—6e, nonirrigated

Range site: Mitring—SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/
ricegrass-needleandthread; Holinrock—DRY LOAMY 7 TO 10 INCH PZ,
shadscale saltbush-fringed sagewort/bluebunch wheatgrass

133—Mogg-Dawtonia association, 20 to 40 percent slopes

Composition

*Mogg and similar soils—*55 percent

*Dawtonia and similar soils—*35 percent

*Dissimilar areas—*10 percent

Mogg

Setting

Position on landscape: North- and east-facing slopes of mountains and hills

Elevation: 4,500 to 6,000 feet

Average annual precipitation: 9 to 11 inches

Average annual air temperature: 39 to 44 degrees F

Frost-free season: 60 to 100 days

Soil characteristics

Typical profile:

0 to 5 inches—pale brown very gravelly loam

5 to 14 inches—pale brown and light yellowish brown very gravelly loam and
extremely gravelly loam

14 to 18 inches—indurated bedrock

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 0.5 to 1.5 inches

Effective rooting depth: 12 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dawtonia

Setting

Position on landscape: South- and west-facing slopes of hills and mountains

Elevation: 4,500 to 6,000 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 39 to 43 degrees F

Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

0 to 4 inches—brown very gravelly loam

4 to 12 inches—yellowish brown very gravelly loam

12 to 24 inches—pale brown very gravelly loam

24 to 60 inches—pale brown and light yellowish brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A well drained soil that is moderately deep to bedrock, very gravelly loam, and on mountains (5 percent)
- Rock outcrop and Rubble land on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Mogg and Dawtonia—7e, nonirrigated

Range site: Mogg—SHALLOW FRACTURED SOUTH 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Dawtonia—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

134—Mooretown-Blackfoot-Borah complex, 0 to 2 percent slopes

Composition

Mooretown and similar soils—45 percent

Blackfoot and similar soils—25 percent

Borah and similar soils—20 percent

Dissimilar areas—10 percent

Setting

Position on landscape: Flood plains and stream terraces

Elevation: 5,000 to 6,300 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 37 to 45 degrees F

Frost-free season: 50 to 90 days

Characteristics of Mooretown

Typical profile:

- 0 to 4 inches—dark gray loam
- 4 to 43 inches—grayish brown and dark grayish brown loam
- 43 to 60 inches—multicolored extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 7.0 to 8.5 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 36 inches in April through July

Periods of flooding: Frequency—occasional; duration—brief; months—April through May

Characteristics of Blackfoot

Typical profile:

- 0 to 19 inches—gray loam
- 19 to 36 inches—light brownish gray and grayish brown loam
- 36 to 60 inches—grayish brown, stratified fine sandy loam to silty clay loam

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate

Available water capacity: 9.0 to 11.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 36 inches in March through October

Characteristics of Borah

Typical profile:

- 0 to 4 inches—dark grayish brown loam
- 4 to 12 inches—dark grayish brown loam
- 12 to 60 inches—multicolored extremely gravelly loamy coarse sand and extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 3.0 inches

Effective rooting depth: 10 to 14 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 12 to 24 inches in April through August

Periods of flooding: Frequency—occasional; duration—brief; months—April through May

Dissimilar Soil

- A very deep, well drained soil that is loam and in convex areas on stream terraces (10 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: Mooretown—4w, nonirrigated; Blackfoot—3w, nonirrigated, and 2w, irrigated; Borah—5w, nonirrigated and irrigated

Range site: Mooretown—SEMIWET MEADOW, sedges; Blackfoot—SEMIWET MEADOW; Borah—WET MEADOW

135—Mooretown-Borco complex, 0 to 2 percent slopes

Composition

Mooretown and similar soils—55 percent

Borco and similar soils—35 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Flood plains and stream terraces

Elevation: 5,000 to 6,300 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 37 to 42 degrees F

Frost-free season: 50 to 90 days

Characteristics of Mooretown

Typical profile:

0 to 3 inches—dark grayish brown loam

3 to 35 inches—dark grayish brown loam

35 to 60 inches—multicolored extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 7.0 to 8.5 inches

Effective rooting depth: 30 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Frequency of flooding: Rare

Characteristics of Borco

Typical profile:

0 to 2 inches—grayish brown very gravelly loam

2 to 10 inches—brown and grayish brown gravelly loam and gravelly sandy loam

10 to 60 inches—multicolored extremely gravelly sand and extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Blackfoot soils on flood plains and stream terraces (10 percent)

Major Uses

Irrigated pastureland and cropland, and rangeland

Interpretive Groups

Land capability classification: Mooretown—6c, nonirrigated, and 3c, irrigated; Borco—6s, nonirrigated, and 4s, irrigated

Range site: Mooretown and Borco—ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass

136—Morphey silt loam, 1 to 4 percent slopes

Composition

Morphey and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Stream terraces

Elevation: 4,000 to 5,500 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 40 to 44 degrees F

Frost-free season: 75 to 100 days

Characteristics of Morphey

Typical profile:

0 to 11 inches—grayish brown and brown silt loam

11 to 19 inches—light brownish gray silty clay loam

19 to 60 inches—pale brown and light yellowish brown clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 9.0 to 10.5 inches

Effective rooting depth: 14 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to perched water table: 12 to 18 inches in April through June

Shrink-swell potential: High

Dissimilar Soils

- A very deep, moderately well drained soil that is silt loam and on stream terraces (10 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly loam and on stream terraces (10 percent)

Major Use

Irrigated hayland

Interpretive Groups

Land capability classification: 3e, nonirrigated and irrigated

Range site: Not assigned

137—Morphey silt loam, 4 to 8 percent slopes

Composition

Morphey and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Stream terraces

Elevation: 4,000 to 5,500 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 40 to 44 degrees F

Frost-free season: 75 to 100 days

Characteristics of Morphey

Typical profile:

0 to 11 inches—grayish brown and brown silt loam

11 to 19 inches—light brownish gray silty clay loam

19 to 60 inches—pale brown and light yellowish brown clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 9.0 to 10.5 inches

Effective rooting depth: 14 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Depth to perched water table: 12 to 18 inches in April through June

Shrink-swell potential: High

Dissimilar Soils

- A very deep, well drained soil that is gravelly clay and on stream terraces (10 percent)
- A very deep, well drained soil that is very gravelly loam and on stream terraces (5 percent)
- A very deep, moderately well drained soil that is light-colored silt loam over silty clay and on stream terraces (5 percent)

Major Use

Irrigated hayland

Interpretive Groups

Land capability classification: 3e, nonirrigated and irrigated

Range site: Not assigned

138—Mountainboy gravelly silt loam, 2 to 8 percent slopes

Composition

*Mountainboy and similar soils—*80 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 7,100 to 7,500 feet

Average annual precipitation: 12 to 14 inches

Average annual air temperature: 37 to 39 degrees F

Frost-free season: 30 to 50 days

Characteristics of Mountainboy

Typical profile:

- 0 to 6 inches—brown gravelly silt loam
- 6 to 11 inches—brown gravelly loam
- 11 to 16 inches—light gray very gravelly loam
- 16 to 19 inches—light gray extremely gravelly coarse sandy loam
- 19 to 20 inches—light gray hardpan
- 20 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 15 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A well drained soil that is moderately deep to a hardpan, gravelly silt loam over very gravelly loam, and on fan terraces (10 percent)
- A very deep, well drained soil that is very gravelly loam and in drainageways on fan terraces and outwash fans (5 percent)
- A very deep, well drained soil that is gravelly loam and on mounds on fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site: SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/Idaho fescue

139—Mountainboy gravelly silt loam, high precipitation, 2 to 6 percent slopes

Composition

*Mountainboy, high precipitation, and similar soils—*80 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Fan terraces

Elevation: 6,800 to 7,500 feet

Average annual precipitation: 14 to 16 inches

Average annual air temperature: 37 to 39 degrees F

Frost-free season: 30 to 50 days

Characteristics of Mountainboy

Typical profile:

- 0 to 5 inches—brown gravelly silt loam
- 5 to 18 inches—brown and light yellowish brown very gravelly loam
- 18 to 19 inches—white hardpan

19 to 60 inches—very pale brown and light gray extremely gravelly loamy coarse sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 15 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A well drained soil that is moderately deep to a hardpan, gravelly silt loam over very gravelly loam, and on upper fan terraces (10 percent)
- A well drained soil that is very shallow to a hardpan, very gravelly loam, and on ridges (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site: CLAYEY 13 TO 16 INCH PZ, low sagebrush/Idaho fescue

140—Nicholia-Goosebury complex, 2 to 35 percent slopes

Composition

Nicholia and similar soils—65 percent

Goosebury and similar soils—20 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Nicholia—convex areas on east-facing slopes of fan terraces;

Goosebury—convex areas on south-facing slopes of fan terraces

Elevation: 6,600 to 7,500 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 40 to 60 days

Characteristics of Nicholia

Slope: 2 to 7 percent

Typical profile:

0 to 2 inches—grayish brown gravelly loam

2 to 14 inches—pale brown gravelly loam

14 to 15 inches—light brownish gray hardpan

15 to 60 inches—light brownish gray extremely gravelly loamy coarse sand and extremely gravelly loamy sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Available water capacity: 1.5 to 3.0 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Goosebury

Slope: 7 to 35 percent

Typical profile:

0 to 2 inches—brown very gravelly loam

2 to 11 inches—light brownish gray and brown very gravelly loam

11 to 41 inches—light brownish gray and grayish brown extremely gravelly sandy loam

41 to 60 inches—dark grayish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3 to 4 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Windcoat soils on ridgetops (5 percent)
- Zeale soils on upper elevations and north-facing breaks (5 percent)
- Zer soils on south-facing slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Nicholia—6s, nonirrigated; Goosebury—6e, nonirrigated

Range site: Nicholia—SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ, low sagebrush/bluebunch wheatgrass; Goosebury—WINDSWEPT 8 TO 11 INCH PZ, silver chickensage-fringed sagewort/Sandberg bluegrass-needleandthread

141—Nielsen-Gaciba association, 20 to 50 percent slopes

Composition

Nielsen and similar soils—55 percent

Gaciba and similar soils—35 percent

Dissimilar soil—10 percent

Nielsen

Setting

Position on landscape: North- and east-facing mountain slopes

Elevation: 5,500 to 6,500 feet

Average annual precipitation: 16 to 20 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free season: 40 to 60 days

Soil characteristics

Typical profile:

0 to 3 inches—dark grayish brown cobbly loam

3 to 15 inches—dark grayish brown very gravelly clay loam and extremely gravelly clay loam

15 to 25 inches—indurated andesite

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Gaciba

Setting

Position on landscape: South- and west-facing mountain slopes

Elevation: 5,500 to 7,500 feet

Average annual precipitation: 11 to 14 inches

Average annual air temperature: 37 to 44 degrees F

Frost-free season: 45 to 90 days

Soil characteristics

Typical profile:

0 to 3 inches—dark brown cobbly loam

3 to 18 inches—dark brown and yellowish brown very gravelly loam

18 to 22 inches—indurated basalt

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 12 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soil

- A very deep, well drained soil that is very gravelly loam and on north- and east-facing mountain slopes at an elevation of more than 6,500 feet (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Nielsen and Gaciba—7e, nonirrigated

Range site: Nielsen—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue; Gaciba—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

142—Nitchly-Skibo-Rock outcrop complex, 20 to 50 percent slopes

Composition

*Nitchly and similar soils—*60 percent

*Skibo and similar soils—*15 percent

*Rock outcrop—*15 percent

*Dissimilar soils—*10 percent

Setting

Position on landscape: Nitchly—south- and west-facing mountain slopes; Skibo—east-facing mountain slopes

Elevation: 6,600 to 8,500 feet
Average annual precipitation: 11 to 17 inches
Average annual air temperature: 36 to 40 degrees F
Frost-free season: 20 to 50 days

Characteristics of Nitchly

Typical profile:

0 to 2 inches—pale brown gravelly loam
 2 to 14 inches—brown and light yellowish brown very gravelly loam
 14 to 60 inches—pink and light yellowish brown very gravelly clay loam and extremely gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 7.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Skibo

Typical profile:

1 inch to 0—slightly decomposed leaves and twigs
 0 to 4 inches—dark grayish brown very stony loam
 4 to 19 inches—brown and yellowish brown extremely cobbly loam
 19 to 60 inches—pale brown and light gray extremely gravelly loam and extremely gravelly fine sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 7.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Description of Rock Outcrop

Cliffs, outcroppings, and other exposed areas of barren rock of varying geologic origin

Dissimilar Soils

- Zeale soils on hill slopes (5 percent)
- Zeelnot soils in concave areas on mountain slopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Nitchly—7e, nonirrigated; Skibo—6e, nonirrigated;
 Rock outcrop—8

Range site: Nitchly—LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass; Skibo—STEEP LIMESTONE 16 TO 22 INCH PZ, curl-leaf mountain mahogany/Idaho fescue

143—Nurkey-Zeebar-Hutchley complex, 20 to 50 percent slopes

Composition

Nurkey and similar soils—45 percent
Zeebar and similar soils—30 percent
Hutchley and similar soils—15 percent
Dissimilar soils—10 percent

Setting

Position on landscape: Nurkey—south- and west-facing mountain slopes; Zeebar and Hutchley—north- and east-facing mountain slopes
Elevation: 6,800 to 8,000 feet
Average annual precipitation: 14 to 18 inches
Average annual air temperature: 37 to 42 degrees F
Frost-free season: 30 to 60 days

Characteristics of Nurkey

Typical profile:
 0 to 10 inches—brown gravelly loam
 10 to 51 inches—pale brown very gravelly clay loam and very gravelly loam
 51 to 60 inches—very pale brown extremely gravelly sandy loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 4.0 to 5.5 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Zeebar

Typical profile:
 0 to 8 inches—dark brown gravelly loam
 8 to 22 inches—dark yellowish brown and yellowish brown very gravelly loam
 22 to 35 inches—light olive brown very gravelly sandy clay loam
 35 to 60 inches—light olive brown extremely gravelly sandy clay loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 3.5 to 5.0 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Hutchley

Typical profile:
 0 to 5 inches—brown stony loam
 5 to 10 inches—brown and dark yellowish brown very gravelly loam
 10 to 18 inches—yellowish brown very gravelly clay loam
 18 to 28 inches—indurated bedrock
Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is light-colored very gravelly loam and on lower south-facing mountain slopes (5 percent)
- A very deep, well drained soil that is gravelly loam and in drainageways on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Nurkey, Zeebar, and Hutchley—6e, nonirrigated

Range site: Nurkey—LOAMY 12 TO 16 INCH PZ, mountain big sagebrush/bluebunch wheatgrass; Zeebar—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Hutchley—CLAYEY SOUTH SLOPE 12 TO 16 INCH PZ, low sagebrush/bluebunch wheatgrass

144—Nurkey-Dacont association, 5 to 30 percent slopes

Composition

*Nurkey and similar soils—*50 percent

*Dacont and similar soils—*30 percent

*Dissimilar soils—*20 percent

Nurkey

Setting

Position on landscape: Convex areas on north- and northeast-facing hill slopes

Elevation: 6,400 to 7,500 feet

Average annual precipitation: 12 to 14 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 50 to 60 days

Soil characteristics

Typical profile:

0 to 4 inches—brown stony loam

4 to 8 inches—brown very gravelly loam

8 to 14 inches—brown very gravelly clay loam

14 to 32 inches—light yellowish brown very gravelly loam

32 to 60 inches—very pale brown and brown very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dacont

Setting

Position on landscape: Convex areas on south-facing hill slopes

Elevation: 6,400 to 7,500 feet

Average annual precipitation: 11 to 13 inches
Average annual air temperature: 39 to 42 degrees F
Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

- 0 to 8 inches—grayish brown gravelly loam
- 8 to 15 inches—brown very gravelly clay loam
- 15 to 28 inches—very pale brown very gravelly loam
- 28 to 60 inches—pale brown very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Donkehill soils on hills (10 percent)
- Hutchley soils on hills (5 percent)
- Zer soils on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Nurkey and Dacont—6e, nonirrigated

Range site: Nurkey—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Dacont—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

145—Nurkey-Dacont association, 30 to 60 percent slopes

Composition

*Nurkey and similar soils—*50 percent

*Dacont and similar soils—*25 percent

*Dissimilar areas—*25 percent

Nurkey

Setting

Position on landscape: North- and east-facing mountain slopes

Elevation: 6,400 to 7,500 feet

Average annual precipitation: 12 to 14 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 40 to 60 days

Soil characteristics

Typical profile:

- 0 to 2 inches—dark brown very gravelly loam
- 2 to 6 inches—brown very gravelly loam
- 6 to 19 inches—brown and yellowish brown very gravelly loam and very gravelly clay loam

19 to 28 inches—brown very gravelly sandy clay loam

28 to 60 inches—yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dacont

Setting

Position on landscape: South- and west-facing mountain slopes

Elevation: 6,400 to 7,500 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free season: 60 to 80 days

Soil characteristics

Typical profile:

0 to 4 inches—brown very cobbly loam

4 to 10 inches—brown very gravelly loam

10 to 60 inches—yellowish brown and light yellowish brown very gravelly loam and extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Areas

- A well drained soil that is moderately deep to bedrock, very gravelly loam over very gravelly clay loam, and on mountainsides (10 percent)
- A well drained soil that is shallow to bedrock, very gravelly loam over very gravelly clay loam, and on mountainsides (10 percent)
- Rock outcrop on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Nurkey and Dacont—7e, nonirrigated

Range site: Nurkey—LOAMY 12 TO 16 INCH PZ, mountain big sagebrush/bluebunch wheatgrass; Dacont—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluegrass

146—Nurkey-Dawtonia association, 20 to 55 percent slopes

Composition

Nurkey and similar soils—50 percent

Dawtonia and similar soils—35 percent
Dissimilar areas—15 percent

Nurkey

Setting

Position on landscape: East- and northeast-facing mountain slopes
Elevation: 5,600 to 7,200 feet
Average annual precipitation: 12 to 14 inches
Average annual air temperature: 37 to 40 degrees F
Frost-free season: 40 to 60 days

Soil characteristics

Typical profile:

- 0 to 1 inch—brown very gravelly loam
- 1 to 5 inches—brown very gravelly loam
- 5 to 54 inches—brown, pale brown, and light yellowish brown extremely gravelly loam
- 54 to 60 inches—pale brown extremely gravelly fine sandy loam

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 4.0 to 5.5 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Dawtonia

Setting

Position on landscape: South- and southeast-facing mountain slopes
Elevation: 5,600 to 7,200 feet
Average annual precipitation: 9 to 11 inches
Average annual air temperature: 37 to 41 degrees F
Frost-free season: 70 to 90 days

Soil characteristics

Typical profile:

- 0 to 3 inches—yellowish brown very gravelly loam
- 3 to 15 inches—yellowish brown very gravelly clay loam and extremely gravelly clay loam
- 15 to 60 inches—yellowish brown extremely gravelly loam

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 3.5 to 4.5 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Areas

- Rubble land on mountainsides (10 percent)
- A very deep, well drained soil that is very gravelly loam and on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Nurkey—6e, nonirrigated; Dawtonia—7e, nonirrigated
Range site: Nurkey—DRY GRAVELLY 13 TO 16 INCH PZ, threetip sagebrush/
 bluebunch wheatgrass; Dawtonia—SOUTH SLOPE GRAVELLY 11 TO 13 INCH
 PZ, Wyoming big sagebrush/bluebunch wheatgrass

147—Oxhead gravelly loam, 2 to 8 percent slopes

Composition

Oxhead and similar soils—90 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Terraces

Elevation: 6,000 to 6,900 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 39 degrees F

Frost-free season: 50 to 90 days

Characteristics of Oxhead

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 21 inches—pale brown and very pale brown loam and gravelly loam

21 to 61 inches—white and very pale brown fine sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 6.5 to 10.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Zer soils on lower convex ridges (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

148—Packham gravelly loam, 1 to 4 percent slopes

Composition

Packham and similar soils—75 percent

Dissimilar soils—25 percent

Setting

Position on landscape: Linear to convex areas on stream terraces

Elevation: 4,200 to 5,400 feet

Average annual precipitation: 8 to 12 inches
Average annual air temperature: 42 to 45 degrees F
Frost-free season: 80 to 100 days

Characteristics of Packham

Typical profile:

0 to 5 inches—brown gravelly loam
 5 to 32 inches—yellowish brown very gravelly loam and very gravelly sandy loam
 32 to 60 inches—light yellowish brown very gravelly loamy sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.0 inches

Effective rooting depth: 20 to 35 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Swahlen soils on stream terraces (5 percent)
- Venum soils on upper terraces (5 percent)
- Yearian soils on lower stream terraces (10 percent)
- A very deep, somewhat excessively drained soil that is very gravelly sandy loam and on stream terraces (5 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated, and 4s, irrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

149—Packham-Perreau complex, 5 to 15 percent slopes

Composition

Packham and similar soils—60 percent

Perreau and similar soils—30 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Packham—south-facing slopes of fan terraces; Perreau—hills

Elevation: 4,200 to 4,500 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 43 to 46 degrees F

Frost-free season: 80 to 100 days

Characteristics of Packham

Slope: 5 to 8 percent

Typical profile:

0 to 5 inches—brown gravelly loam
 5 to 32 inches—yellowish brown very gravelly loam and very gravelly sandy loam
 32 to 60 inches—light yellowish brown very gravelly loamy sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.0 inches

Effective rooting depth: 20 to 35 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Perreau

Slope: 5 to 15 percent

Typical profile:

0 to 5 inches—light yellowish brown silt loam

5 to 18 inches—light yellowish brown and brown gravelly loam and gravelly clay loam

18 to 37 inches—yellowish brown gravelly loam and light yellowish brown very gravelly loam

37 to 60 inches—light yellowish brown and very pale brown very gravelly loam and very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soil

- A very deep, well drained soil that is stony loam over very gravelly loam and in convex areas on fan terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Packham—6s, nonirrigated; Perreau—6e, nonirrigated

Range site: Packham—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Perreau—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

150—Packmo-Leadore complex, 1 to 4 percent slopes

Composition

*Packmo and similar soils—*65 percent

*Leadore and similar soils—*20 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Packmo—linear to concave areas on fan terraces and outwash fans; Leadore—linear to convex areas on fan terraces and outwash fans

Elevation: 5,800 to 6,800 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 50 to 75 days

Characteristics of Packmo

Typical profile:

- 0 to 3 inches—brown gravelly loam
- 3 to 10 inches—light yellowish brown gravelly loam
- 10 to 40 inches—light yellowish brown, pale brown, very pale brown, and white very gravelly sandy loam, extremely gravelly sandy loam, and extremely gravelly loam
- 40 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Leadore

Typical profile:

- 0 to 3 inches—yellowish brown gravelly loam
- 3 to 16 inches—pale brown gravelly loam
- 16 to 60 inches—multicolored extremely cobbly loamy sand and extremely cobbly sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Derwell soils on fan terraces (15 percent)

Major Uses

Rangeland and irrigated hayland

Interpretive Groups

Land capability classification: Packmo and Leadore—6e, nonirrigated, and 4e, irrigated

Range site: Packmo and Leadore—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

151—Packmo-Whiteknob complex, 1 to 4 percent slopes

Composition

Packmo and similar soils—50 percent

Whiteknob and similar soils—30 percent

Dissimilar soils—20 percent

Setting

Position on landscape: North- and northeast-facing slopes of fan terraces and outwash fans

Elevation: 6,000 to 6,700 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 39 to 42 degrees F

Frost-free season: 60 to 80 days

Characteristics of Packmo

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 10 inches—light yellowish brown gravelly loam

10 to 40 inches—light yellowish brown, pale brown, very pale brown, and white very gravelly sandy loam, extremely gravelly sandy loam, and extremely gravelly loam

40 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Whiteknob

Typical profile:

0 to 4 inches—light yellowish brown gravelly loam

4 to 8 inches—brown gravelly loam

8 to 13 inches—pale brown very gravelly loam and extremely gravelly sandy loam

13 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 3.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Bock soils on upper fan terraces (10 percent)
- Leadore soils on outwash fans (5 percent)
- A very deep, somewhat poorly drained soil that is dark-colored gravelly loam and in concave areas on fan terraces (5 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: Packmo—6e, nonirrigated, and 4e, irrigated; Whiteknob—6s, nonirrigated, and 4s, irrigated

Range site: Packmo and Whiteknob—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

152—Pahsimeroi gravelly loam, 2 to 6 percent slopes

Composition

Pahsimeroi and similar soils—90 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 4,500 to 6,000 feet

Average annual precipitation: 7 to 11 inches

Average annual air temperature: 39 to 41 degrees F

Frost-free season: 60 to 90 days

Characteristics of Pahsimeroi

Typical profile:

0 to 7 inches—pale brown gravelly loam

7 to 17 inches—light yellowish brown extremely gravelly coarse sandy loam

17 to 32 inches—light yellowish brown extremely cobbly loamy sand

32 to 60 inches—very pale brown extremely gravelly sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 1 to 2 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soil

- A very deep, well drained soil that is very gravelly loam and in convex areas on fan terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site: LOAMY 7 TO 10 INCH PZ, Wyoming big sagebrush/Sandberg bluegrass-needleandthread

153—Pahsimeroi gravelly loam, 10 to 20 percent slopes

Composition

*Pahsimeroi and similar soils—*80 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 5,900 to 6,200 feet

Average annual precipitation: 9 to 11 inches

Average annual air temperature: 39 to 41 degrees F

Frost-free season: 60 to 80 days

Characteristics of Pahsimeroi

Typical profile:

0 to 7 inches—pale brown gravelly loam

7 to 17 inches—light yellowish brown extremely gravelly coarse sandy loam

17 to 32 inches—light yellowish brown extremely cobbly loamy sand

32 to 60 inches—very pale brown extremely gravelly sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 1 to 2 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, well drained soil that is very gravelly loam and on south- and west-facing slopes of outwash fans at an elevation of more than 6,800 feet (10 percent)
- A very deep, somewhat excessively drained soil that is dark-colored gravelly loam over very gravelly sandy loam and on southeast-facing slopes of fan terraces at an elevation of more than 6,800 feet (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: LOAMY 7 TO 10 INCH PZ, Wyoming big sagebrush/Sandberg bluegrass-needleandthread

154—Pahsimeroi extremely gravelly loam, 2 to 10 percent slopes

Composition

*Pahsimeroi and similar soils—*85 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Convex areas on outwash fans and fan terraces

Elevation: 4,500 to 6,000 feet

Average annual precipitation: 7 to 11 inches

Average annual air temperature: 39 to 41 degrees F

Frost-free season: 60 to 90 days

Characteristics of Pahsimeroi

Typical profile:

0 to 5 inches—brown extremely gravelly loam

5 to 12 inches—yellowish brown very gravelly coarse sandy loam

12 to 25 inches—yellowish brown extremely cobbly loamy coarse sand

25 to 60 inches—multicolored extremely cobbly coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 1 to 2 inches

Effective rooting depth: 10 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, somewhat excessively drained soil that is very cobbly sandy loam and on outwash fans (10 percent)

- A very deep, well drained soil that is gravelly loam over very gravelly loam and in drainageways on outwash fans and fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

155—Paint complex, 2 to 8 percent slopes

Composition

Paint and similar soils—65 percent

Paint, cold, and similar soils—25 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Paint—linear to concave areas on fan terraces and outwash fans; Paint, cold—convex areas on fan terraces and outwash fans

Elevation: 6,300 to 7,200 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free season: 60 to 80 days

Characteristics of Paint

Typical profile:

0 to 3 inches—pale brown gravelly loam

3 to 12 inches—brown and pale brown very gravelly loam

12 to 16 inches—light gray hardpan

16 to 60 inches—light gray and light brownish gray extremely gravelly loamy coarse sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 11 to 16 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Paint, Cold

Typical profile:

0 to 8 inches—pale brown gravelly loam

8 to 14 inches—very pale brown very gravelly loam

14 to 15 inches—light gray hardpan

15 to 60 inches—light brownish gray extremely gravelly sand and extremely gravelly loamy coarse sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 11 to 16 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Simeroi soils on mounds on fan terraces and outwash fans (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Paint and Paint, cold—7e, nonirrigated

Range site: Paint—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Paint, cold—WINDSWEPT 8 TO 11 INCH PZ, silver chickensage-fringed sagewort/Sandberg bluegrass-needleandthread

156—Paint-Bluedome complex, 2 to 10 percent slopes

Composition

Paint and similar soils—65 percent

Bluedome and similar soils—25 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Fan terraces and outwash fans

Elevation: 5,500 to 7,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free season: 50 to 80 days

Characteristics of Paint

Typical profile:

0 to 8 inches—brown and pale brown gravelly loam

8 to 14 inches—pale brown very gravelly loam

14 to 24 inches—light gray hardpan

24 to 60 inches—light gray and very pale brown extremely gravelly loamy coarse sand and extremely gravelly sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 11 to 16 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Bluedome

Typical profile:

0 to 5 inches—pale brown loam

5 to 35 inches—pale brown, very pale brown, and white loam and gravelly loam

35 to 37 inches—white hardpan

37 to 60 inches—light gray and brownish gray extremely gravelly sandy loam

Depth class: Moderately deep to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Available water capacity: 2.0 to 7.5 inches

Effective rooting depth: 20 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soil

- A very deep, well drained soil that is gravelly loam and in drainageways on fan terraces and outwash fans (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Paint—7e, nonirrigated; Bluedome—6e, nonirrigated

Range site: Paint—LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass; Bluedome—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

157—Paint-Whitecloud complex, 2 to 8 percent slopes

Composition

Paint and similar soils—75 percent

Whitecloud and similar soils—25 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,300 to 6,500 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 40 degrees F

Frost-free season: 60 to 80 days

Characteristics of Paint

Typical profile:

0 to 3 inches—pale brown gravelly loam

3 to 12 inches—brown and pale brown very gravelly loam

12 to 16 inches—light gray hardpan

16 to 60 inches—light gray and light brownish gray extremely gravelly loamy coarse sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 11 to 16 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Whitecloud

Typical profile:

0 to 6 inches—brown gravelly loam

6 to 13 inches—very pale brown very gravelly loam

13 to 20 inches—white very gravelly sandy loam

20 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained
Permeability: Moderate in the upper part and rapid in the lower part
Available water capacity: 2 to 4 inches
Effective rooting depth: 10 to 20 inches
Runoff: Slow
Hazard of water erosion: Slight

Major Use

Rangeland

Interpretive Groups

Land capability classification: Paint—7e, nonirrigated; Whitecloud—6s, nonirrigated
Range site: Paint and Whitecloud—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

158—Parkay-Donkehill complex, 20 to 50 percent slopes

Composition

Parkay and similar soils—45 percent
Donkehill and similar soils—35 percent
Dissimilar soils—20 percent

Setting

Position on landscape: Parkay—north- and east-facing slopes and concave areas on south- and west-facing slopes of hills and mountains; Donkehill—south- and west-facing slopes of hills and mountains
Elevation: 7,500 to 9,000 feet
Average annual precipitation: 16 to 22 inches
Average annual air temperature: 34 to 38 degrees F
Frost-free season: 30 to 50 days

Characteristics of Parkay

Typical profile:
 0 to 13 inches—very dark grayish brown very gravelly loam
 13 to 32 inches—dark grayish brown, yellowish brown, and pale brown very gravelly loam
 32 to 60 inches—light yellowish brown very gravelly clay loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 3.5 to 5.5 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Donkehill

Typical profile:
 0 to 5 inches—dark brown very gravelly loam
 5 to 16 inches—brown and light brownish gray very gravelly loam
 16 to 20 inches—indurated bedrock
Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Moderate

Available water capacity: 0.5 to 1.5 inches

Effective rooting depth: 11 to 19 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A well drained soil that is moderately deep to bedrock, very gravelly loam, and in convex areas on north- and east-facing mountain slopes (10 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly clay and in concave areas on mountains and hills (5 percent)
- A very deep, well drained soil that is very gravelly loam and in drainageways on hills and mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Parkay and Donkehill—6e, nonirrigated

Range site: Parkay—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Donkehill—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass

159—Parkay-Nurkey complex, 2 to 15 percent slopes

Composition

*Parkay and similar soils—*70 percent

*Nurkey and similar soils—*15 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Parkay—convex areas on south-facing slopes of fan terraces;

Nurkey—concave areas on fan terraces

Elevation: 6,400 to 6,600 feet

Average annual precipitation: 14 to 18 inches

Average annual air temperature: 38 to 40 degrees F

Frost-free season: 40 to 60 days

Characteristics of Parkay

Typical profile:

0 to 4 inches—very dark grayish brown stony loam

4 to 10 inches—very dark grayish brown gravelly loam

10 to 20 inches—very dark grayish brown very gravelly loam

20 to 35 inches—dark grayish brown, yellowish brown, and pale brown very gravelly loam

35 to 60 inches—light yellowish brown very cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Nurkey

Typical profile:

- 0 to 8 inches—grayish brown and brown gravelly loam
- 8 to 26 inches—yellowish brown and light gray very gravelly loam
- 26 to 60 inches—light brownish gray very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Lesbut soils on toe slopes (5 percent)
- A very deep, well drained soil that is very stony loam over very gravelly loam and on fan terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Parkay—4e, nonirrigated; Nurkey—6e, nonirrigated

Range site: Parkay—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/
Idaho fescue; Nurkey—DRY GRAVELLY 13 TO 16 INCH PZ, threetip sagebrush/
bluebunch wheatgrass

160—Parkay-Nurkey complex, 20 to 50 percent slopes

Composition

Parkay and similar soils—45 percent

Nurkey and similar soils—35 percent

Dissimilar areas—20 percent

Setting

Position on landscape: Parkay—north- and east-facing slopes of mountains and hills;

Nurkey—south- and west-facing slopes of mountains and hills

Elevation: 7,400 to 9,000 feet

Average annual precipitation: 16 to 20 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 30 to 40 days

Characteristics of Parkay

Typical profile:

- 0 to 4 inches—very dark grayish brown gravelly loam
- 4 to 9 inches—very dark grayish brown gravelly loam
- 9 to 35 inches—dark grayish brown, yellowish brown, and pale brown very gravelly clay loam
- 35 to 60 inches—light yellowish brown extremely gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Nurkey

Typical profile:

0 to 2 inches—dark brown very gravelly loam

2 to 6 inches—brown very gravelly loam

6 to 19 inches—brown and yellowish brown very gravelly loam and very gravelly clay loam

19 to 28 inches—brown very gravelly sandy clay loam

28 to 60 inches—yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A very deep, well drained soil that is very gravelly loam and on warmer south-facing slopes (5 percent)
- A very deep, well drained soil that is very stony loam over very gravelly loam and on hills (5 percent)
- A very deep, well drained soil that is gravelly loam over gravelly clay and on hills (5 percent)
- Rock outcrop on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Parkay—7e, nonirrigated; Nurkey—6e, nonirrigated

Range site: Parkay—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Nurkey—LOAMY 12 TO 16 INCH PZ, mountain big sagebrush/bluebunch wheatgrass

161—Parkay-Zeebar complex, 5 to 20 percent slopes

Composition

*Parkay and similar soils—*45 percent

*Zeebar and similar soils—*45 percent

*Dissimilar soil—*10 percent

Setting

Position on landscape: Parkay—concave areas on mountains and hills; Zeebar—linear to convex areas on mountains and hills

Elevation: 6,200 to 8,000 feet

Average annual precipitation: 16 to 20 inches

Average annual air temperature: 36 to 38 degrees F

Frost-free season: 30 to 60 days

Characteristics of Parkay

Typical profile:

0 to 4 inches—very dark grayish brown gravelly loam

4 to 9 inches—very dark grayish brown gravelly loam

9 to 35 inches—dark grayish brown, yellowish brown, and pale brown very gravelly clay loam

35 to 60 inches—light yellowish brown extremely gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Zeebar

Typical profile:

0 to 7 inches—dark brown gravelly loam

7 to 24 inches—brown and very pale brown very gravelly clay loam

24 to 60 inches—light brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soil

- A very deep, well drained soil that is very gravelly loam, has a high content of lime in the subsoil, and is in convex areas on lower south- and west-facing slopes (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Parkay and Zeebar—6e, nonirrigated

Range site: Parkay—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Zeebar—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

162—Parkay-Friedman association, 20 to 50 percent slopes

Composition

*Parkay and similar soils—*55 percent

*Friedman and similar soils—*30 percent

*Dissimilar areas—*15 percent

Parkay

Setting

Position on landscape: Concave areas on north- and east-facing footslopes and south- and west-facing mountain slopes

Elevation: 8,000 to 9,500 feet

Average annual precipitation: 18 to 22 inches

Average annual air temperature: 36 to 38 degrees F

Frost-free season: 30 to 40 days

Soil characteristics

Typical profile:

0 to 4 inches—very dark grayish brown gravelly loam

4 to 9 inches—very dark grayish brown gravelly loam

9 to 35 inches—dark grayish brown, yellowish brown, and pale brown very gravelly clay loam

35 to 60 inches—light yellowish brown extremely gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Friedman

Setting

Position on landscape: South- and west-facing mountain slopes

Elevation: 8,000 to 9,500 feet

Average annual precipitation: 18 to 22 inches

Average annual air temperature: 36 to 39 degrees F

Frost-free season: 30 to 50 days

Soil characteristics

Typical profile:

0 to 2 inches—dark brown gravelly loam

2 to 18 inches—dark brown and brown very gravelly loam

18 to 37 inches—brown very gravelly clay loam

37 to 60 inches—strong brown very gravelly clay and extremely gravelly clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- Nielsen soils in convex areas on ridges and near areas of Rock outcrop (10 percent)
- Rock outcrop on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Parkay and Friedman—6e, nonirrigated

Range site: Parkay and Friedman—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

163—Pattee-Perreau complex, 1 to 4 percent slopes

Composition

Pattee and similar soils—50 percent

Perreau and similar soils—25 percent

Dissimilar areas—25 percent

Setting

Position on landscape: Pattee—linear to convex areas on stream terraces; Perreau—linear to concave areas on stream terraces

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 40 to 44 degrees F

Frost-free season: 75 to 100 days

Characteristics of Pattee

Typical profile:

0 to 3 inches—yellowish brown silt loam

3 to 26 inches—light yellowish brown and light gray silt loam

26 to 60 inches—light yellowish brown loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 9 to 11 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Perreau

Typical profile:

0 to 4 inches—brown silt loam

4 to 13 inches—brown gravelly clay loam

13 to 26 inches—pale brown gravelly loam

26 to 60 inches—very pale brown and light gray very gravelly sandy loam and extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Areas

- Dawtonia soils on stream terraces (5 percent)
- Millhi soils on hills (5 percent)

- Packham soils on stream terraces (10 percent)
- Badland in convex areas on hills (5 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: Pattee—6e, nonirrigated, and 3e, irrigated; Perreau—6c, nonirrigated, and 3e, irrigated

Range site: Pattee and Perreau—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

164—Pattee-Perreau complex, 4 to 8 percent slopes

Composition

Pattee and similar soils—45 percent

Perreau and similar soils—30 percent

Dissimilar areas—25 percent

Setting

Position on landscape: Pattee—linear to convex areas on stream terraces; Perreau—linear to concave areas on stream terraces

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 40 to 44 degrees F

Frost-free season: 75 to 100 days

Characteristics of Pattee

Typical profile:

0 to 4 inches—light yellowish brown silt loam

4 to 25 inches—light yellowish brown silt loam

25 to 49 inches—light yellowish brown and very pale brown silt loam

49 to 60 inches—very pale brown gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 9 to 11 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Perreau

Typical profile:

0 to 4 inches—brown silt loam

4 to 13 inches—brown gravelly clay loam

13 to 26 inches—pale brown gravelly loam

26 to 60 inches—very pale brown and light gray very gravelly sandy loam and extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- Millhi soils in linear to convex areas on stream terraces (5 percent)
- Packham soils in convex areas on stream terraces (5 percent)
- Badland in convex areas on hills (5 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly loam and on stream terraces (10 percent)

Major Uses

Irrigated hayland, cropland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: Pattee and Perreau—6e, nonirrigated, and 3e, irrigated

Range site: Pattee and Perreau—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

165—Pedoli-Dawtonia complex, 1 to 4 percent slopes

Composition

Pedoli and similar soils—50 percent

Dawtonia and similar soils—35 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Pedoli—linear to concave areas on fan terraces; Dawtonia—linear to convex areas on fan terraces

Elevation: 5,000 to 5,600 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 41 to 43 degrees F

Frost-free season: 70 to 90 days

Characteristics of Pedoli

Typical profile:

0 to 2 inches—pale brown gravelly silt loam

2 to 15 inches—brown gravelly clay loam

15 to 19 inches—brown very gravelly sandy clay loam

19 to 32 inches—yellowish brown extremely gravelly sandy loam

32 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow in the upper part and very rapid in the lower part

Available water capacity: 4.5 to 5.5 inches

Effective rooting depth: 30 to 40 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Dawtonia

Typical profile:

0 to 4 inches—brown very gravelly loam

4 to 12 inches—yellowish brown very gravelly loam

12 to 24 inches—pale brown very gravelly loam

24 to 60 inches—pale brown and light yellowish brown extremely gravelly loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 3.5 to 4.5 inches
Effective rooting depth: 60 inches or more
Runoff: Slow
Hazard of water erosion: Slight

Dissimilar Soils

- Germer soils on fan terraces (5 percent)
- A very deep, well drained soil that is dark-colored gravelly silt loam over very gravelly loam and in concave areas on fan terraces (10 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: Pedoli—6e, nonirrigated, and 4e, irrigated; Dawtonia—6e, nonirrigated, and 3e, irrigated
Range site: Pedoli—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Dawtonia—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

166—Pedoli-Whiteknob complex, 2 to 6 percent slopes

Composition

Pedoli and similar soils—50 percent
Whiteknob and similar soils—30 percent
Dissimilar soils—20 percent

Setting

Position on landscape: Fan terraces and outwash fans
Elevation: 6,000 to 6,500 feet
Average annual precipitation: 8 to 11 inches
Average annual air temperature: 39 to 42 degrees F
Frost-free season: 60 to 80 days

Characteristics of Pedoli

Typical profile:

- 0 to 2 inches—pale brown gravelly silt loam
- 2 to 15 inches—brown gravelly clay loam
- 15 to 19 inches—brown very gravelly sandy clay loam
- 19 to 32 inches—yellowish brown extremely gravelly sandy loam
- 32 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow in the upper part and very rapid in the lower part
Available water capacity: 4.5 to 5.5 inches
Effective rooting depth: 30 to 40 inches
Runoff: Slow
Hazard of water erosion: Slight

Characteristics of Whiteknob

Typical profile:

- 0 to 3 inches—pale brown gravelly loam
- 3 to 7 inches—brown gravelly loam
- 7 to 18 inches—brown extremely gravelly sandy loam
- 18 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 3.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Sparmo soils in concave areas on fan terraces (10 percent)
- A very deep, well drained soil that is very gravelly loam over extremely gravelly loamy sand and on outwash fans (10 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: Pedoli—6e, nonirrigated, and 4e, irrigated; Whiteknob—6s, nonirrigated, and 4s, irrigated

Range site: Pedoli—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Whiteknob—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

167—Penagul-Rosebriar complex, 20 to 60 percent slopes

Composition

Penagul and similar soils—45 percent

Rosebriar and similar soils—30 percent

Dissimilar soils—25 percent

Setting

Position on landscape: Penagul—south- and west-facing slopes of hills and ridges;
Rosebriar—north- and east-facing slopes of hills and ridges

Elevation: 5,000 to 6,000 feet

Average annual precipitation: 6 to 9 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free season: 60 to 80 days

Characteristics of Penagul

Typical profile:

- 0 to 2 inches—very pale brown very gravelly clay loam
- 2 to 8 inches—pale brown very gravelly clay loam
- 8 to 18 inches—moderately cemented tuff

Depth class: Very shallow to bedrock

Drainage class: Well drained
Permeability: Slow
Available water capacity: 0.5 to 1.0 inch
Effective rooting depth: 6 to 10 inches
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Rosebriar

Typical profile:

- 0 to 2 inches—pale brown gravelly sandy loam
- 2 to 12 inches—brown and light yellowish brown very gravelly clay
- 12 to 17 inches—very pale brown extremely gravelly sandy clay loam
- 17 to 27 inches—moderately cemented tuff

Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Slow
Available water capacity: 1 to 2 inches
Effective rooting depth: 14 to 20 inches
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Soils

- A well drained soil that is moderately deep to bedrock, very gravelly loam over very gravelly clay loam, and on ridges (10 percent)
- A well drained soil that is shallow to bedrock, very gravelly loam, and on hills (10 percent)
- A well drained soil that is shallow to bedrock, gravelly loam, and on ridges and hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Penagul and Rosebriar—7e, nonirrigated
Range site: Penagul—FRAGILE LANDS 7 TO 9 INCH PZ, shadscale saltbush/Salmon wildrye; Rosebriar—FLAGSTONE 8 TO 11 INCH PZ, Wyoming big sagebrush/Salmon wildrye

168—Perreau silt loam, 1 to 4 percent slopes

Composition

Perreau and similar soils—75 percent
Dissimilar soils—25 percent

Setting

Position on landscape: Linear to convex areas on stream terraces
Elevation: 4,000 to 6,000 feet
Average annual precipitation: 8 to 11 inches
Average annual air temperature: 42 to 46 degrees F
Frost-free season: 75 to 100 days

Characteristics of Perreau

Typical profile:

- 0 to 4 inches—brown silt loam

4 to 13 inches—brown gravelly clay loam
 13 to 26 inches—pale brown gravelly loam
 26 to 60 inches—very pale brown and light gray very gravelly sandy loam and extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Dawtonia soils on hills (10 percent)
- Millhi soils on stream terraces and hills (5 percent)
- Packham soils on stream terraces (5 percent)
- Pattee soils on stream terraces and hills (5 percent)

Major Uses

Irrigated hayland, cropland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: 6c, nonirrigated, and 3e, irrigated

Range site: LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

169—Perreau silt loam, 4 to 8 percent slopes

Composition

*Perreau and similar soils—*75 percent

*Dissimilar soils—*25 percent

Setting

Position on landscape: Stream terraces

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 42 to 46 degrees F

Frost-free season: 75 to 100 days

Characteristics of Perreau

Typical profile:

0 to 4 inches—brown silt loam

4 to 13 inches—brown gravelly clay loam

13 to 26 inches—pale brown gravelly loam

26 to 60 inches—very pale brown and light gray very gravelly sandy loam and extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Dawtonia soils on hills (5 percent)
- Millhi soils on stream terraces and hills (5 percent)
- Pattee soils on stream terraces and hills (10 percent)
- A very deep, well drained soil that is dark-colored loam over gravelly loam and in concave areas on stream terraces and hills (5 percent)

Major Uses

Irrigated hayland, cropland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated, and 3e, irrigated

Range site: LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

170—Perreau silt loam, 8 to 20 percent slopes

Composition

Perreau and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Stream terraces

Elevation: 4,000 to 4,900 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 43 to 46 degrees F

Frost-free season: 80 to 100 days

Characteristics of Perreau

Typical profile:

0 to 5 inches—light yellowish brown silt loam

5 to 21 inches—light yellowish brown, brown, and yellowish brown gravelly loam and gravelly clay loam

21 to 60 inches—pale brown, light yellowish brown, and very pale brown very gravelly loam and very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Millhi soils on stream terraces (10 percent)
- Snowslide soils in convex areas on south- and west-facing hill slopes (5 percent)
- A very deep, well drained soil that is stony loam over gravelly loam and on ridges (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

171—Perreau-Dawtonia complex, 4 to 8 percent slopes

Composition

Perreau and similar soils—50 percent

Dawtonia and similar soils—40 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Perreau—linear to concave areas on stream terraces;

Dawtonia—linear to convex areas on stream terraces

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 42 to 46 degrees F

Frost-free season: 75 to 100 days

Characteristics of Perreau

Typical profile:

0 to 4 inches—brown silt loam

4 to 13 inches—brown gravelly clay loam

13 to 26 inches—pale brown gravelly loam

26 to 60 inches—very pale brown and light gray very gravelly sandy loam and extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Dawtonia

Typical profile:

0 to 4 inches—brown gravelly loam

4 to 12 inches—yellowish brown very gravelly loam

12 to 24 inches—pale brown very gravelly loam

24 to 60 inches—light yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Pattee soils in linear to convex areas on stream terraces (5 percent)
- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly loam and in concave areas on hills (5 percent)

Major Uses

Irrigated hayland, cropland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: Perreau and Dawtonia—6e, nonirrigated, and 3e, irrigated

Range site: Perreau—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Dawtonia—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

172—Perreau-Dawtonia complex, 20 to 45 percent slopes

Composition

Perreau and similar soils—50 percent

Dawtonia and similar soils—40 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Perreau—concave areas on hills; Dawtonia—convex areas on hills

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 42 to 46 degrees F

Frost-free season: 75 to 100 days

Characteristics of Perreau

Typical profile:

0 to 4 inches—brown silt loam

4 to 13 inches—brown gravelly clay loam

13 to 26 inches—pale brown gravelly loam

26 to 60 inches—very pale brown and light gray very gravelly sandy loam and extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Dawtonia

Typical profile:

0 to 4 inches—brown very gravelly loam

4 to 12 inches—yellowish brown very gravelly loam

12 to 24 inches—pale brown very gravelly loam

24 to 60 inches—pale brown and light yellowish brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Soils

- Zer soils on hills (5 percent)
- Pattee soils on toeslopes (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Perreau—6e, nonirrigated; Dawtonia—7e, nonirrigated
Range site: Perreau—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Dawtonia—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

173—Perreau-Pattee complex, 15 to 25 percent slopes

Composition

Perreau and similar soils—45 percent

Pattee and similar soils—30 percent

Dissimilar areas—25 percent

Setting

Position on landscape: Perreau—linear to concave areas on terraces and hills; Pattee—linear to convex areas on terraces and hills

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 44 degrees F

Frost-free season: 75 to 100 days

Characteristics of Perreau

Typical profile:

0 to 3 inches—brown silt loam

3 to 12 inches—dark yellowish brown gravelly clay loam

12 to 60 inches—yellowish brown and brownish yellow very gravelly loam and very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Pattee

Typical profile:

0 to 4 inches—light yellowish brown silt loam

4 to 25 inches—light yellowish brown silt loam

25 to 49 inches—light yellowish brown and very pale brown silt loam

49 to 60 inches—very pale brown gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 9 to 11 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- Shenon soils in concave areas on terraces and footslopes (10 percent)
- Badland in convex areas on footslopes (5 percent)
- A very deep, well drained soil that is very gravelly loam and on terraces and footslopes (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Perreau and Pattee—6e, nonirrigated

Range site: Perreau and Pattee—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

174—Pits, gravel

Description of areas: Gravel and borrow pits that consist of open excavations where gravel or soil material has been removed for use as construction material

Position on landscape: Hills, low terraces, and valley floors

Vegetation: Little, if any

Land capability classification: 8

175—Pits, mine

Description of areas: Open excavations from which surface soil material is removed, the underlying material is then mined, and the surface soil material is redeposited

Position on landscape: Hills, low terraces, and valley floors

Vegetation: Little, if any

Land capability classification: 8

176—Povey very gravelly loam, 15 to 45 percent slopes

Composition

*Povey and similar soils—*85 percent

*Dissimilar areas—*15 percent

Setting

Position on landscape: Moraines and mountainsides

Elevation: 6,800 to 7,800 feet

Average annual precipitation: 16 to 20 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free season: 30 to 50 days

Characteristics of Povey

Typical profile:

0 to 5 inches—dark grayish brown very gravelly loam

5 to 22 inches—brown and dark grayish brown very gravelly loam

22 to 60 inches—brown and light brownish gray very gravelly sandy loam

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 4.0 to 5.5 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Areas

- Busterback soils on fan terraces (5 percent)
- A very deep, well drained soil that is gravelly loam over very stony loam and on steep mountainsides (5 percent)
- Rock outcrop on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated
Range site: LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

177—Povey-Klug, cool complex, 25 to 60 percent slopes

Composition

*Povey and similar soils—*55 percent
*Klug and similar soils—*40 percent
*Dissimilar areas—*5 percent

Setting

Position on landscape: Povey—concave areas on mountains; Klug—convex areas on mountains
Elevation: 7,500 to 9,000 feet
Average annual precipitation: 16 to 20 inches
Average annual air temperature: 35 to 37 degrees F
Frost-free season: 20 to 30 days

Characteristics of Povey

Typical profile:
 0 to 4 inches—brown very gravelly loam
 4 to 16 inches—brown very gravelly sandy loam
 16 to 60 inches—light yellowish brown very gravelly sandy loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 4.0 to 5.5 inches
Effective rooting depth: 60 inches or more
Runoff: Rapid
Hazard of water erosion: Severe

Characteristics of Klug

Typical profile:
 0 to 7 inches—dark brown very gravelly loam

7 to 12 inches—brown very gravelly sandy loam

12 to 60 inches—yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Areas

- Rock outcrop on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Povey and Klug—7e, nonirrigated

Range site: Povey—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Klug—LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

178—Reck-Threedot complex, 5 to 35 percent slopes

Composition

*Reck and similar soils—*40 percent

*Threedot and similar soils—*35 percent

*Dissimilar soils—*25 percent

Setting

Position on landscape: Reck—convex areas on mountainsides, and ridges;

Threedot—concave areas on mountainsides

Elevation: 6,800 to 7,500 feet

Average annual precipitation: 14 to 18 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 40 to 60 days

Characteristics of Reck

Typical profile:

0 to 2 inches—brown stony loam

2 to 5 inches—brown very gravelly clay loam

5 to 20 inches—brown very cobbly clay

20 to 46 inches—light brown and pink very stony clay and very stony clay loam

46 to 60 inches—pink very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Very slow

Available water capacity: 4.5 to 6.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Characteristics of Threedot

Typical profile:

- 0 to 3 inches—very dark grayish brown stony loam
- 3 to 11 inches—very dark grayish brown very gravelly loam and very cobbly loam
- 11 to 14 inches—brown very cobbly clay loam
- 14 to 43 inches—yellowish brown very cobbly clay and very gravelly clay
- 43 to 60 inches—light yellowish brown extremely gravelly clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 3.5 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Depth to perched water table: 12 to 24 inches in April through June

Dissimilar Soils

- Resoot soils on smooth mountainsides (10 percent)
- A very deep, well drained soil that is very stony loam and on mountainsides (10 percent)
- A very deep, well drained soil that is very gravelly loam and on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Reck and Threedot—6e, nonirrigated

Range site: Reck—CLAYEY 12 TO 16 INCH PZ, alkali sagebrush/Idaho fescue;

Threedot—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

179—Redfish-Fezip-Lilylake complex, 0 to 4 percent slopes

Composition

Redfish and similar soils—40 percent

Fezip and similar soils—30 percent

Lilylake and similar soils—20 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Redfish and Fezip—flood plains; Lilylake—flood plains and concave areas on terraces

Elevation: 6,800 to 7,300 feet

Average annual precipitation: 12 to 16 inches

Average annual air temperature: 34 to 38 degrees F

Frost-free season: 20 to 40 days

Characteristics of Redfish

Slope: 0 to 2 percent

Typical profile:

- 0 to 7 inches—grayish brown loam

7 to 13 inches—gray very gravelly loam

13 to 60 inches—multicolored extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Very poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.0 to 3.5 inches

Effective rooting depth: 10 to 22 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 inches above the surface to a depth of 6 inches below the surface in March through November

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Characteristics of Fezip

Slope: 0 to 4 percent

Typical profile:

0 to 6 inches—dark grayish brown fine sandy loam

6 to 16 inches—dark grayish brown loamy sand

16 to 26 inches—grayish brown fine sandy loam

26 to 60 inches—multicolored extremely gravelly loamy coarse sand and extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 25 to 30 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in May through August

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Characteristics of Lilylake

Slope: 0 to 2 percent

Typical profile:

0 to 12 inches—black and very dark brown muck

12 to 15 inches—brown sand

15 to 60 inches—light brownish gray extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Very poorly drained

Permeability: Rapid

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 10 to 16 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 inches above the surface to a depth of 6 inches below the surface in January through December

Periods of flooding: Frequency—frequent; duration—long; months—January through June

Dissimilar Soils

- Copperbasin soils in convex areas on flood plains (5 percent)
- A very deep, somewhat poorly drained soil that is loam over very gravelly loam and on flood plains (5 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: Redfish, Fezip, and Lilylake—5w, nonirrigated and irrigated

Range site: Redfish and Fezip—WET MEADOW; Lilylake—WET MEADOW (MUCK), willow/sedges

180—Resoot-Friedman complex, 5 to 35 percent slopes**Composition**

Resoot and similar soils—45 percent

Friedman and similar soils—35 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Resoot—linear to convex areas on moraines and ridges;
Friedman—concave areas on moraines

Elevation: 7,500 to 8,000 feet

Average annual precipitation: 14 to 18 inches

Average annual air temperature: 34 to 38 degrees F

Frost-free season: 30 to 50 days

Characteristics of Resoot

Typical profile:

0 to 3 inches—dark grayish brown gravelly loam

3 to 10 inches—grayish brown very gravelly clay loam

10 to 60 inches—pale brown and very pale brown very gravelly clay loam and very gravelly clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.5 to 6.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Characteristics of Friedman

Typical profile:

0 to 3 inches—dark gray gravelly loam

3 to 10 inches—dark grayish brown gravelly loam

10 to 16 inches—brown very gravelly clay loam

16 to 30 inches—pale brown very gravelly clay

30 to 60 inches—pale brown very stony clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is very stony loam over very gravelly clay and on moraines (10 percent)
- A well drained soil that is moderately deep to bedrock, very stony loam over very gravelly clay, and in convex areas on ridges and knobs (5 percent)
- A very deep, well drained soil that is bouldery loam over bouldery clay loam and on moraines (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Resoot—6e, nonirrigated; Friedman—4e, nonirrigated

Range site: Resoot—LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue; Friedman—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

181—Resoot-Friedman complex, 20 to 50 percent slopes

Composition

Resoot and similar soils—55 percent

Friedman and similar soils—30 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Mountains

Elevation: 6,000 to 7,800 feet

Average annual precipitation: 14 to 18 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free season: 40 to 60 days

Characteristics of Resoot

Typical profile:

0 to 3 inches—dark grayish brown gravelly loam

3 to 12 inches—dark grayish brown very gravelly loam

12 to 60 inches—brown, yellowish brown, and light yellowish brown very gravelly clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.5 to 6.0 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Shrink-swell potential: High

Characteristics of Friedman

Typical profile:

0 to 2 inches—dark brown gravelly loam

2 to 18 inches—dark brown and brown very gravelly loam

18 to 37 inches—brown very gravelly clay loam

37 to 60 inches—strong brown very gravelly clay and extremely gravelly clay

Depth class: Very deep
Drainage class: Well drained
Permeability: Slow
Available water capacity: 3.0 to 5.5 inches
Effective rooting depth: 60 inches or more
Runoff: Rapid
Hazard of water erosion: Severe

Dissimilar Areas

- A well drained soil that is shallow to bedrock, stony loam over very gravelly clay loam, and in convex areas on ridges and near areas of Rock outcrop (10 percent)
- Rock outcrop on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Resoot and Friedman—6e, nonirrigated
Range site: Resoot—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/
 Idaho fescue; Friedman—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/
 Idaho fescue

182—Ringle gravelly loam, 2 to 8 percent slopes

Composition

*Ringle and similar soils—*90 percent
*Dissimilar soils—*10 percent

Setting

Position on landscape: Fan terraces
Elevation: 4,500 to 5,500 feet
Average annual precipitation: 6 to 8 inches
Average annual air temperature: 38 to 41 degrees F
Frost-free season: 60 to 90 days

Characteristics of Ringle

Typical profile:

- 0 to 4 inches—pale brown gravelly loam
- 4 to 9 inches—pale brown very gravelly loam
- 9 to 16 inches—grayish brown very gravelly sandy loam
- 16 to 60 inches—grayish brown extremely gravelly loamy sand

Depth class: Very deep
Drainage class: Somewhat excessively drained
Permeability: Moderate in the upper part and rapid in the lower part
Available water capacity: 2.5 to 3.5 inches
Effective rooting depth: 10 to 20 inches
Runoff: Slow
Hazard of water erosion: Slight

Dissimilar Soils

- Leatherman soils on fan terraces (5 percent)
- A very deep, somewhat excessively drained soil that is gravelly sandy loam and in drainageways on fan terraces (5 percent)

Major Uses

Irrigated pastureland, cropland, and hayland, and rangeland

Interpretive Groups

Land capability classification: 7s, nonirrigated, and 4s, irrigated

Range site: GRAVELLY 7 TO 10 INCH PZ, shadscale saltbush/sand dropseed

183—Rock outcrop and Rubble land, very steep**Composition**

Rock outcrop—50 percent

Rubble land—50 percent

Characteristics of Rock Outcrop

Description of areas: Cliffs, outcroppings, and other exposed areas of bare rock of varying geologic origin

Position on landscape: Mountains

Elevation: 4,000 to 10,390 feet

Characteristics of Rubble Land

Description of areas: Angular cobbles, stones, and boulders at the base of rock outcroppings, cliffs, and mountains

Position on landscape: Very steep mountain slopes

Major Uses

Wildlife habitat and recreation

Interpretive Groups

Land capability classification: 8

184—Sanfelipe complex, 5 to 15 percent slopes**Composition**

Sanfelipe and similar soils—60 percent

Sanfelipe, moist, and similar soils—30 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Outwash fans, fan terraces, and alluvial fans

Elevation: 6,400 to 7,000 feet

Average annual precipitation: 9 to 11 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free season: 50 to 90 days

Characteristics of Sanfelipe

Typical profile:

0 to 8 inches—grayish brown and brown gravelly loam

8 to 38 inches—yellowish brown and white very gravelly sandy loam and extremely gravelly sandy loam

38 to 60 inches—light brownish gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 3.0 to 5.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Sanfelipe, Moist

Typical profile:

0 to 9 inches—brown gravelly loam

9 to 30 inches—light gray and grayish brown very gravelly loam and extremely gravelly sandy loam

30 to 60 inches—light brownish gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 3.0 to 5.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Simeroi soils on outwash fans and fan terraces (10 percent)

Major Uses

Rangeland, hayland, pastureland, and cropland

Interpretive Groups

Land capability classification: Sanfelipe and Sanfelipe, moist—6e, nonirrigated

Range site: Sanfelipe—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Sanfelipe, moist—DRY GRAVELLY 13 TO 16 INCH PZ, threetip sagebrush/bluebunch wheatgrass

185—Shenon loam, 1 to 4 percent slopes

Composition

Shenon and similar soils—85 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Linear to convex areas on fan terraces

Elevation: 3,700 to 4,200 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 37 to 44 degrees F

Frost-free season: 70 to 100 days

Characteristics of Shenon

Typical profile:

0 to 4 inches—grayish brown loam

4 to 14 inches—brown loam

14 to 24 inches—pale brown clay loam

24 to 60 inches—pale brown and very pale brown loam and gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow
Available water capacity: 7 to 10 inches
Effective rooting depth: 60 inches or more
Runoff: Slow
Hazard of water erosion: Slight

Dissimilar Soils

- Perreau soils on fan terraces (5 percent)
- Morphey soils on fan terraces (5 percent)
- A very deep, well drained soil that is clay loam over loam and on fan terraces (5 percent)

Major Uses

Irrigated hayland, cropland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: 4c, nonirrigated, and 3e, irrigated
Range site: LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

186—Shenon loam, 5 to 15 percent slopes

Composition

*Shenon and similar soils—*85 percent
*Dissimilar soils—*15 percent

Setting

Position on landscape: Fan terraces
Elevation: 4,500 to 5,800 feet
Average annual precipitation: 11 to 13 inches
Average annual air temperature: 37 to 41 degrees F
Frost-free season: 50 to 80 days

Characteristics of Shenon

Typical profile:

- 0 to 4 inches—brown loam
- 4 to 14 inches—brown and pale brown clay loam and gravelly clay loam
- 14 to 24 inches—very pale brown gravelly clay loam
- 24 to 60 inches—very pale brown gravelly loam and loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 7 to 10 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is loam over clay loam over clay and on south- and west-facing slopes of fan terraces (10 percent)
- A very deep, well drained soil that is gravelly clay loam over loam and on dissections of fan terraces (5 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: 4e, nonirrigated and irrigated

Range site: LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

187—Shenon-Perreau complex, 4 to 8 percent slopes**Composition**

Shenon and similar soils—45 percent

Perreau and similar soils—35 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Shenon—linear to concave areas on fan terraces and stream terraces; Perreau—linear to convex areas on fan terraces and stream terraces

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 42 to 46 degrees F

Frost-free season: 70 to 100 days

Characteristics of Shenon

Typical profile:

0 to 4 inches—grayish brown loam

4 to 14 inches—brown loam

14 to 24 inches—pale brown clay loam

24 to 60 inches—pale brown and very pale brown loam and gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 7 to 10 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Perreau

Typical profile:

0 to 5 inches—light yellowish brown silt loam

5 to 18 inches—light yellowish brown and brown gravelly loam and gravelly clay loam

18 to 21 inches—yellowish brown gravelly loam

21 to 60 inches—pale brown, light yellowish brown, and very pale brown very gravelly loam and very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Dawtonia soils in linear to convex areas on fan terraces (5 percent)
- Misfire soils in linear to convex areas on stream terraces (10 percent)
- Pattee soils in linear to convex areas on stream terraces (5 percent)

Major Uses

Irrigated hayland, cropland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: Shenon—4e, nonirrigated, and 3e, irrigated; Perreau—6e, nonirrigated, and 3e, irrigated

Range site: Shenon—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Perreau—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

188—Shenon-Perreau complex, 4 to 20 percent slopes

Composition

Shenon and similar soils—55 percent

Perreau and similar soils—30 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Shenon—linear to concave areas on fan terraces and stream terraces; Perreau—linear to convex areas on fan terraces and stream terraces

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 42 to 46 degrees F

Frost-free season: 70 to 100 days

Characteristics of Shenon

Slope: 4 to 20 percent

Typical profile:

0 to 4 inches—grayish brown loam

4 to 14 inches—brown loam

14 to 24 inches—pale brown clay loam

24 to 60 inches—pale brown and very pale brown loam and gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 8 to 11 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Perreau

Slope: 4 to 12 percent

Typical profile:

0 to 5 inches—light yellowish brown loam

5 to 21 inches—light yellowish brown, brown, and yellowish brown gravelly loam and gravelly clay loam

21 to 60 inches—pale brown, light yellowish brown, and very pale brown very gravelly loam and very gravelly sandy loam

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 5 to 8 inches
Effective rooting depth: 60 inches or more
Runoff: Rapid
Hazard of water erosion: Severe

Dissimilar Soils

- Packham soils in concave areas on fan terraces (10 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly loam and in convex areas on stream terraces (5 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: Shenon—4e, nonirrigated and irrigated; Perreau—6e, nonirrigated, and 4e, irrigated
Range site: Shenon—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Perreau—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

189—Simeroi gravelly loam, 2 to 6 percent slopes

Composition

Simeroi and similar soils—85 percent
Dissimilar soils—15 percent

Setting

Position on landscape: Outwash fans and fan terraces
Elevation: 6,000 to 6,700 feet
Average annual precipitation: 8 to 11 inches
Average annual air temperature: 38 to 42 degrees F
Frost-free season: 60 to 90 days

Characteristics of Simeroi

Typical profile:

- 0 to 3 inches—grayish brown gravelly loam
- 3 to 16 inches—pale brown, light yellowish brown, and very pale brown very gravelly loam
- 16 to 54 inches—light gray and pale brown very gravelly sandy loam
- 54 to 60 inches—pale brown extremely gravelly coarse sand

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate in the upper part and very rapid in the lower part
Available water capacity: 3.0 to 4.5 inches
Effective rooting depth: 2 to 18 inches
Runoff: Slow
Hazard of water erosion: Slight

Dissimilar Soils

- Whitecloud soils on outwash fans (10 percent)

- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly loam and on fan terraces (5 percent)

Major Uses

Irrigated hayland, pastureland, and cropland, and rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated, and 3e, irrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

190—Simeroi gravelly loam, 6 to 15 percent slopes

Composition

Simeroi and similar soils—95 percent

Dissimilar soil—5 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,000 to 6,700 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 60 to 90 days

Characteristics of Simeroi

Typical profile:

0 to 3 inches—pale brown gravelly loam

3 to 8 inches—light yellowish brown extremely gravelly loam

8 to 48 inches—very pale brown very gravelly sandy loam and extremely gravelly coarse sandy loam

48 to 60 inches—light yellowish brown very gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.0 to 4.5 inches

Effective rooting depth: 2 to 18 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soil

- A very deep, poorly drained soil that is gravelly loam over very gravelly loam and in concave areas on fan terraces and valley bottoms (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

191—Simeroi complex, 2 to 8 percent slopes

Composition

Simeroi, cold, and similar soils—70 percent

Simeroi and similar soils—20 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Simeroi, cold—west-facing slopes of outwash fans and fan terraces; Simeroi—drainageways on west-facing slopes of outwash fans and fan terraces

Elevation: 6,000 to 6,800 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 60 to 80 days

Characteristics of Simeroi, Cold

Typical profile:

0 to 2 inches—brown gravelly loam

2 to 22 inches—pale brown and brown very gravelly loam

22 to 36 inches—pale brown very gravelly sandy loam

36 to 60 inches—light brownish gray extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.0 to 4.5 inches

Effective rooting depth: 2 to 18 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Simeroi

Typical profile:

0 to 11 inches—light yellowish brown gravelly loam

11 to 60 inches—grayish brown extremely gravelly coarse sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 2 to 18 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Paint soils on fan terraces (10 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: Simeroi, cold, and Simeroi—6e, nonirrigated, and 3e, irrigated

Range site: Simeroi, cold—WINDSWEPT 8 TO 11 INCH PZ, silver chickensage-fringed sagewort/Sandberg bluegrass-needleandthread; Simeroi—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

192—Simeroi-Paint-Sanfelipe complex, 5 to 20 percent slopes

Composition

Simeroi and similar soils—50 percent

Paint and similar soils—25 percent

Sanfelipe and similar soils—15 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Simeroi—outwash fans and fan terraces; Paint—fan terraces and outwash fans; Sanfelipe—fan terraces, alluvial fans, and outwash fans

Elevation: 6,000 to 7,000 feet

Average annual precipitation: 9 to 11 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free season: 50 to 90 days

Characteristics of Simeroi

Typical profile:

0 to 9 inches—pale brown gravelly loam

9 to 23 inches—very pale brown very gravelly loam

23 to 60 inches—very pale brown and pale brown extremely gravelly coarse sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 2 to 18 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Paint

Typical profile:

0 to 8 inches—brown and pale brown gravelly loam

8 to 14 inches—pale brown very gravelly loam

14 to 24 inches—light gray hardpan

24 to 60 inches—light gray and very pale brown extremely gravelly loamy coarse sand and extremely gravelly sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 11 to 16 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Sanfelipe

Typical profile:

0 to 8 inches—grayish brown and brown gravelly loam

8 to 38 inches—yellowish brown and white very gravelly sandy loam and extremely gravelly sandy loam

38 to 60 inches—light brownish gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 3.0 to 5.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is dark-colored gravelly loam and on mounds on fan terraces and outwash fans (5 percent)
- A very deep, well drained soil that is light-colored loam and on lower fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Simeroi and Sanfelipe—6e, nonirrigated; Paint—7e, nonirrigated

Range site: Simeroi and Sanfelipe—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Paint—LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass

193—Simeroi-Whitecloud complex, 2 to 8 percent slopes

Composition

Simeroi and similar soils—80 percent

Whitecloud and similar soils—15 percent

Dissimilar soils—5 percent

Setting

Position on landscape: Simeroi—concave areas on outwash fans and fan terraces;

Whitecloud—convex areas on outwash fans and fan terraces

Elevation: 6,300 to 7,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free season: 50 to 80 days

Characteristics of Simeroi

Typical profile:

0 to 9 inches—pale brown gravelly loam

9 to 23 inches—very pale brown very gravelly loam

23 to 60 inches—very pale brown and pale brown extremely gravelly coarse sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 2 to 18 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Whitecloud

Typical profile:

0 to 3 inches—pale brown very gravelly loam

3 to 17 inches—pale brown and light yellowish brown very cobbly loam

17 to 60 inches—light brownish gray and pale brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Paint soils on fan terraces and outwash fans (5 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: Simeroi—6e, nonirrigated, and 3e, irrigated; Whitecloud—6s, nonirrigated and irrigated

Range site: Simeroi—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Whitecloud—WINDSWEPT 8 TO 11 INCH PZ, silver chickensage-fringed sagewort/Sandberg bluegrass-needleandthread

194—Skibo stony loam, 20 to 50 percent slopes

Composition

*Skibo and similar soils—*75 percent

*Dissimilar areas—*25 percent

Setting

Position on landscape: Mountains

Elevation: 7,000 to 8,500 feet

Average annual precipitation: 16 to 20 inches

Average annual air temperature: 32 to 40 degrees F

Frost-free season: 10 to 50 days

Characteristics of Skibo

Typical profile:

0 to 5 inches—dark grayish brown stony loam

5 to 23 inches—dark brown, brown, and gray very gravelly loam

23 to 60 inches—gray and light gray extremely gravelly fine sandy loam and extremely cobbly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 7.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- Coalkiln soils on north- and east-facing mountain slopes (10 percent)
- A well drained soil that is moderately deep to bedrock, very cobbly loam, and in convex areas on ridges (5 percent)
- A well drained soil that is shallow to bedrock, very gravelly loam, and near areas of Rock outcrop on ridges (5 percent)
- Rock outcrop on ridges and mountains (5 percent)

Major Uses

Wildlife habitat and rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: STEEP LIMESTONE 16 TO 22 INCH PZ, curl-leaf mountain mahogany/
Idaho fescue

195—Smout-Cowbone complex, 0 to 2 percent slopes

Composition

*Smout and similar soils—*60 percent

*Cowbone and similar soils—*25 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Smout—linear to convex areas on flood plains; Cowbone—
linear to concave areas on flood plains

Elevation: 3,700 to 4,200 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 40 to 42 degrees F

Frost-free season: 70 to 90 days

Characteristics of Smout

Typical profile:

0 to 7 inches—grayish brown gravelly loam

7 to 12 inches—grayish brown extremely gravelly sandy loam

12 to 60 inches—multicolored extremely gravelly sand and extremely gravelly
coarse sand

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 2.0 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 48 to 72 inches in April through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through
June

Characteristics of Cowbone

Typical profile:

- 0.5 inch to 0—moderately decomposed leaves and twigs
- 0 to 16 inches—grayish brown silt loam
- 16 to 24 inches—light brownish gray silt loam
- 24 to 54 inches—light brownish gray fine sandy loam and very fine sandy loam
- 54 to 60 inches—light olive gray very cobbly loamy very fine sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 8.5 to 10.5 inches

Effective rooting depth: 45 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in March through July

Periods of flooding: Frequency—frequent; duration—brief; months—April through June

Dissimilar Soils

- Blackfoot soils on flood plains (5 percent)
- Tohobit soils on lower terraces (10 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: Smout—4s, nonirrigated and irrigated; Cowbone—5w, nonirrigated and irrigated

Range site: Smout and Cowbone—RIVERBOTTOM 10 TO 16 INCH PZ, black cottonwood/western wheatgrass

196—Smout-Yearian complex, 0 to 2 percent slopes

Composition

Smout and similar soils—55 percent

Yearian and similar soils—30 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Smout—linear to convex areas on flood plains; Yearian—linear to concave areas on flood plains

Elevation: 3,900 to 5,100 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 40 to 42 degrees F

Frost-free season: 70 to 90 days

Characteristics of Smout

Typical profile:

- 0 to 6 inches—grayish brown loam
- 6 to 11 inches—grayish brown extremely gravelly loam
- 11 to 60 inches—multicolored extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 2.0 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 48 to 72 inches in April through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Yearian

Typical profile:

0 to 15 inches—gray and dark grayish brown gravelly loam

15 to 60 inches—grayish brown and dark gray very gravelly sandy loam and very gravelly loam

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate

Available water capacity: 3.5 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in April through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soils

- A very deep, very poorly drained soil that is sapric material over very gravelly sand and in depressional areas on flood plains (5 percent)
- A very deep, poorly drained soil that is dark-colored sandy loam and in oxbow areas on flood plains (5 percent)
- A very deep, somewhat poorly drained soil that is gravelly loam over very gravelly clay loam and on flood plains (5 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: Smout—4s, nonirrigated and irrigated; Yearian—5w, nonirrigated and irrigated

Range site: Smout—RIVERBOTTOM 10 TO 16 INCH PZ, black cottonwood/western wheatgrass; Yearian—WET MEADOW

197—Snowslide gravelly loam, dry, 1 to 10 percent slopes

Composition

Snowslide and similar soils—90 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Fan terraces

Elevation: 4,500 to 5,500 feet

Average annual precipitation: 6 to 8 inches

Average annual air temperature: 40 to 43 degrees F

Frost-free season: 60 to 90 days

Characteristics of Snowslide

Typical profile:

- 0 to 7 inches—pale brown gravelly loam
- 7 to 45 inches—very pale brown and white very gravelly loam
- 45 to 60 inches—pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soil

- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly loam and in drainageways on fan terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 7e, nonirrigated

Range site: SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/ricegrass-needleandthread

198—Snowslide very gravelly loam, 1 to 6 percent slopes

Composition

*Snowslide and similar soils—*85 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Fan terraces

Elevation: 5,100 to 5,500 feet

Average annual precipitation: 6 to 8 inches

Average annual air temperature: 40 to 42 degrees F

Frost-free season: 60 to 80 days

Characteristics of Snowslide

Typical profile:

- 0 to 9 inches—pale brown and brown very gravelly loam
- 9 to 21 inches—light gray extremely cobbly loam
- 21 to 55 inches—pale brown and light yellowish brown extremely gravelly sandy loam and extremely gravelly loam
- 55 to 60 inches—very pale brown gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, somewhat excessively drained soil that is very gravelly sandy loam and on fan terraces (10 percent)
- A very deep, well drained soil that is dark-colored very gravelly loam over extremely gravelly sandy loam and in drainageways on fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 7s, nonirrigated

Range site: GRAVELLY 7 TO 10 INCH PZ, shadscale saltbush/sand dropseed

199—Snowslide very gravelly loam, dry, 20 to 40 percent slopes

Composition

*Snowslide and similar soils—*85 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Hills

Elevation: 5,000 to 6,000 feet

Average annual precipitation: 6 to 8 inches

Average annual air temperature: 40 to 42 degrees F

Frost-free season: 60 to 90 days

Characteristics of Snowslide

Typical profile:

0 to 9 inches—pale brown and brown very gravelly loam

9 to 21 inches—light gray extremely cobbly loam

21 to 55 inches—pale brown and light yellowish brown extremely gravelly sandy loam and extremely gravelly loam

55 to 60 inches—very pale brown gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Dawtonia soils in convex areas on hills (10 percent)
- A well drained soil that is shallow to bedrock, very gravelly loam, and on ridgetops (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 7e, nonirrigated

Range site: SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/ricegrass-needleandthread

200—Snowslide-Badland-Perreau complex, 5 to 35 percent slopes

Composition

Snowslide and similar soils—40 percent

Badland—20 percent

Perreau and similar soils—20 percent

Dissimilar areas—20 percent

Setting

Position on landscape: Snowslide—hills and fan terraces; Badland and Perreau—hills

Elevation: 4,000 to 4,500 feet

Average annual precipitation: 7 to 9 inches

Average annual air temperature: 42 to 45 degrees F

Frost-free season: 70 to 90 days

Characteristics of Snowslide

Typical profile:

0 to 3 inches—brown silt loam

3 to 12 inches—light yellowish brown and very pale brown gravelly silt loam

12 to 39 inches—very pale brown very gravelly sandy loam

39 to 44 inches—very pale brown very gravelly silt loam

44 to 60 inches—multicolored extremely gravelly sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Badland

Description of areas: Nearly barren, fragile land composed mainly of bentonite clay

Position on landscape: Terrace escarpments and low areas where intermittent streams have eroded the soft bentonite clay

Vegetation: Little, if any

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Perreau

Typical profile:

0 to 5 inches—light yellowish brown silt loam

5 to 18 inches—light yellowish brown and brown gravelly loam and gravelly clay loam

18 to 21 inches—yellowish brown gravelly loam

21 to 60 inches—pale brown, light yellowish brown, and very pale brown very gravelly loam and very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.5 to 8.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- Millhi soils on hills (5 percent)
- Rock outcrop on hills (5 percent)
- Ringle soils on fan terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Snowslide—7e, nonirrigated; Badland—8; Perreau—6e, nonirrigated

Range site: Snowslide—SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/ ricegrass-needleandthread; Perreau—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

201—Snowslide-Farvant complex, 10 to 40 percent slopes

Composition

*Snowslide and similar soils—*60 percent

*Farvant and similar soils—*30 percent

*Dissimilar soil—*10 percent

Setting

Position on landscape: Hills

Elevation: 5,000 to 6,000 feet

Average annual precipitation: 6 to 8 inches

Average annual air temperature: 39 to 41 degrees F

Frost-free season: 70 to 80 days

Characteristics of Snowslide

Slope: 10 to 25 percent

Typical profile:

0 to 9 inches—pale brown and brown very gravelly loam

9 to 21 inches—light gray extremely cobbly loam

21 to 55 inches—pale brown and light yellowish brown extremely gravelly sandy loam and extremely gravelly loam

55 to 60 inches—very pale brown gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Farvant

Slope: 10 to 40 percent

Typical profile:

0 to 2 inches—pale brown gravelly sandy loam

2 to 6 inches—light yellowish brown gravelly sandy loam
 6 to 12 inches—light yellowish brown extremely flaggy sandy loam
 12 to 16 inches—moderately cemented tuff

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 0.5 to 1.5 inches

Effective rooting depth: 10 to 17 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soil

- A well drained soil that is moderately deep to bedrock, very gravelly loam, and in drainageways on hills (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Snowslide—7e, nonirrigated; Farvant—7s, nonirrigated

Range site: Snowslide—SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/
 ricegrass-needleandthread; Farvant—FRAGILE LANDS 7 TO 9 INCH PZ,
 shadscale saltbush/Salmon wildrye

202—Snowslide-Zer-Snowslide complex, 5 to 35 percent slopes

Composition

*Snowslide, south, and similar soils—*35 percent

*Zer and similar soils—*30 percent

*Snowslide, north, and similar soils—*20 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Snowslide, south—south- and west-facing slopes of fan terraces; Zer—concave areas and south- and west-facing draws on fan terraces; Snowslide, north—convex areas on north- and east-facing slopes of fan terraces

Elevation: 6,000 to 6,500 feet

Average annual precipitation: 7 to 9 inches

Average annual air temperature: 39 to 42 degrees F

Frost-free season: 60 to 80 days

Characteristics of Snowslide, South

Slope: 5 to 20 percent

Typical profile:

0 to 7 inches—pale brown gravelly loam

7 to 45 inches—very pale brown and white very gravelly loam

45 to 60 inches—pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Zer

Slope: 5 to 35 percent

Typical profile:

0 to 5 inches—light yellowish brown and yellowish brown gravelly loam

5 to 14 inches—very pale brown very gravelly loam

14 to 26 inches—very pale brown and light yellowish brown extremely gravelly sandy loam

26 to 60 inches—very pale brown and light yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Snowslide, North

Slope: 5 to 35 percent

Typical profile:

0 to 9 inches—pale brown gravelly loam

9 to 60 inches—pale brown, light gray, and light yellowish brown very gravelly sandy loam and extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 or 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- Dawtonia soils in concave areas on north-facing slopes (5 percent)
- A very deep, well drained soil that is very stony loam and in convex areas on ridges (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Snowslide, south, and Snowslide, north—7e, nonirrigated; Zer—6e, nonirrigated

Range site: Snowslide, south—SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/ricegrass-needleandthread; Zer—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Snowslide, north—WINDSWEPT 8 TO 11 INCH PZ, silver chickensage-fringed sagewort/Sandberg bluegrass-needleandthread

203—Soen gravelly loam, 0 to 4 percent slopes

Composition

Soen and similar soils—80 percent
Dissimilar soils—20 percent

Setting

Position on landscape: Fan terraces
Elevation: 5,700 to 5,900 feet
Average annual precipitation: 12 to 14 inches
Average annual air temperature: 40 to 42 degrees F
Frost-free season: 70 to 90 days

Characteristics of Soen

Typical profile:

- 0 to 7 inches—grayish brown and brown gravelly loam
- 7 to 20 inches—brown and pale brown clay loam
- 20 to 60 inches—very pale brown and light gray gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 8.0 to 10.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Shrink-swell potential: High

Dissimilar Soils

- A very deep, well drained soil that is gravelly loam over very gravelly loam and on fan terraces (10 percent)
- A very deep, somewhat excessively drained soil that is gravelly sandy loam over very gravelly sandy loam and on fan terraces (10 percent)

Major Uses

Irrigated cropland and hayland, and rangeland

Interpretive Groups

Land capability classification: 4e, nonirrigated and irrigated

Range site: LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

204—Soen-Justesen-Howcan complex, 4 to 35 percent slopes

Composition

Soen and similar soils—40 percent
Justesen and similar soils—30 percent
Howcan and similar soils—15 percent
Dissimilar soils—15 percent

Setting

Position on landscape: Soen and Justesen—fan terraces; Howcan—footslopes and fan terraces

Elevation: 5,500 to 7,000 feet
Average annual precipitation: 12 to 16 inches
Average annual air temperature: 38 to 42 degrees F
Frost-free season: 50 to 90 days

Characteristics of Soen

Slope: 4 to 20 percent
Typical profile:
 0 to 5 inches—dark grayish brown loam
 5 to 14 inches—brown clay loam
 14 to 60 inches—yellowish brown and light yellowish brown gravelly clay loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Slow
Available water capacity: 8.0 to 10.5 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate
Shrink-swell potential: High

Characteristics of Justesen

Slope: 4 to 20 percent
Typical profile:
 0 to 4 inches—brown loam
 4 to 40 inches—grayish brown, pale brown, and light yellowish brown clay loam
 40 to 60 inches—pale brown loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 7.5 to 11.0 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Howcan

Slope: 20 to 35 percent
Typical profile:
 0 to 4 inches—dark grayish brown gravelly loam
 4 to 10 inches—brown gravelly loam
 10 to 48 inches—yellowish brown very cobbly loam and very gravelly loam
 48 to 64 inches—brown very gravelly loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 3.5 to 6.0 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is very gravelly clay loam and on hills (10 percent)
- A very deep, well drained soil that is gravelly loam over clay loam and in drainageways on fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Soen—4e, nonirrigated; Justesen—3e, nonirrigated; Howcan—6e, nonirrigated

Range site: Soen and Justesen soils—LOAMY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Howcan—LOAMY 12 TO 16 INCH PZ, mountain big sagebrush/bluebunch wheatgrass

205—Sparmo silt loam, 1 to 5 percent slopes**Composition**

Sparmo and similar soils—95 percent

Dissimilar soils—5 percent

Setting

Position on landscape: Fan terraces

Elevation: 6,400 to 6,800 feet

Average annual precipitation: 10 to 12 inches

Average annual air temperature: 40 to 42 degrees F

Frost-free season: 60 to 80 days

Characteristics of Sparmo

Typical profile:

0 to 5 inches—brown silt loam

5 to 37 inches—pale brown silt loam

37 to 60 inches—pale brown very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Simeroi soils on fan terraces (5 percent)

Major Uses

Irrigated cropland, hayland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated, and 3c, irrigated

Range site: LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

206—Sparmo-Zer complex, 1 to 5 percent slopes**Composition**

Sparmo and similar soils—45 percent

Zer and similar soils—40 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Sparmo—convex areas on north-facing slopes of fan terraces;

Zer—concave areas on northeast-facing slopes of fan terraces

Elevation: 5,800 to 6,400 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 41 to 43 degrees F

Frost-free season: 60 to 80 days

Characteristics of Sparmo

Typical profile:

0 to 3 inches—grayish brown loam

3 to 38 inches—pale brown and very pale brown gravelly loam

38 to 60 inches—very pale brown very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Zer

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 10 inches—pale brown gravelly loam

10 to 23 inches—light gray very gravelly sandy loam

23 to 60 inches—light gray and very pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, well drained soil that is dark-colored loam over gravelly loam and on fan terraces (10 percent)
- A very deep, poorly drained soil that is loam and in concave areas on fan terraces (5 percent)

Major Uses

Irrigated cropland, pastureland, and hayland, and rangeland

Interpretive Groups

Land capability classification: Sparmo—6e, nonirrigated, and 3c, irrigated; Zer—6e, nonirrigated, and 4e, irrigated

Range site: Sparmo—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Zer—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

207—Sparmo-Zer complex, 6 to 12 percent slopes

Composition

Sparmo and similar soils—45 percent

Zer and similar soils—45 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Sparmo—linear to convex areas on northeast-facing slopes of stream terraces; Zer—concave areas on northeast-facing slopes of fan terraces

Elevation: 5,600 to 5,800 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 41 to 43 degrees F

Frost-free season: 80 to 90 days

Characteristics of Sparmo

Typical profile:

0 to 3 inches—grayish brown loam

3 to 38 inches—pale brown and very pale brown gravelly loam

38 to 60 inches—very pale brown very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Zer

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 10 inches—pale brown gravelly loam

10 to 23 inches—light gray very gravelly sandy loam

23 to 60 inches—light gray and very pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soil

- A very deep, well drained soil that is dark-colored loam over gravelly loam over very gravelly loam and in concave areas on stream terraces (10 percent)

Major Uses

Irrigated cropland, pastureland, and hayland, and rangeland

Interpretive Groups

Land capability classification: Sparmo—6e, nonirrigated, and 3e, irrigated; Zer—6e, nonirrigated, and 4e, irrigated

Range site: Sparmo—LOAMY 8 TO 11 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Zer—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

208—Sprabat sandy loam, 0 to 4 percent slopes

Composition

Sprabat and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Fan terraces

Elevation: 5,000 to 5,500 feet

Average annual precipitation: 6 to 8 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free season: 60 to 90 days

Characteristics of Sprabat

Typical profile:

0 to 5 inches—brown gravelly sandy loam

5 to 7 inches—light yellowish brown sandy loam

7 to 41 inches—light yellowish brown and pale brown gravelly sandy loam

41 to 53 inches—yellowish brown gravelly loamy coarse sand

53 to 60 inches—light yellowish brown gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 4.5 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Snowslide soils on fan terraces (10 percent)
- Sparmo soils on outwash fans (10 percent)

Major Uses

Irrigated cropland, pastureland, and hayland, and rangeland

Interpretive Groups

Land capability classification: 7c, nonirrigated, and 3e, irrigated

Range site: SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/ricegrass-needleandthread

209—Sprabat-Snowslide complex, 1 to 8 percent slopes

Composition

Sprabat and similar soils—65 percent

Snowslide and similar soils—25 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Sprabat—fan terraces; Snowslide—draws on fan terraces

Elevation: 5,000 to 5,500 feet

Average annual precipitation: 6 to 8 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free season: 60 to 90 days

Characteristics of Sprabat

Typical profile:

- 0 to 5 inches—brown gravelly sandy loam
- 5 to 7 inches—light yellowish brown sandy loam
- 7 to 41 inches—light yellowish brown and pale brown gravelly sandy loam
- 41 to 53 inches—yellowish brown gravelly loamy coarse sand
- 53 to 60 inches—light yellowish brown gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 4.5 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Snowslide

Typical profile:

- 0 to 7 inches—pale brown gravelly loam
- 7 to 45 inches—very pale brown, white, and very pale brown very gravelly loam
- 45 to 60 inches—pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soil

- A very deep, well drained soil that is dark-colored very gravelly loam and in concave areas on fan terraces (10 percent)

Major Uses

Irrigated cropland, pastureland, and hayland, and rangeland

Interpretive Groups

Land capability classification: Sprabat—7e, nonirrigated, and 3e, irrigated; Snowslide—7e, nonirrigated, and 4e, irrigated

Range site: Sprabat and Snowslide—SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/ricegrass-needleandthread

210—Struggle complex, 5 to 35 percent slopes

Composition

*Struggle and similar soils—*55 percent

*Struggle, very stony, and similar soils—*30 percent

*Dissimilar soil—*15 percent

Setting

Position on landscape: Moraines

Elevation: 6,600 to 8,000 feet

Average annual precipitation: 20 to 25 inches

Average annual air temperature: 34 to 38 degrees F

Frost-free season: 5 to 30 days

Characteristics of Struggle

Slope: 5 to 15 percent

Typical profile:

1.5 inches to 0—slightly decomposed needles, twigs, and cones

0 to 2 inches—dark grayish brown gravelly coarse sandy loam

2 to 18 inches—brown, yellowish brown, pale brown, and very pale brown gravelly coarse sandy loam and very gravelly coarse sandy loam

18 to 38 inches—very pale brown extremely gravelly loamy coarse sand

38 to 60 inches—light gray extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 3.0 inches

Effective rooting depth: 10 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Struggle, Very Stony

Slope: 15 to 35 percent

Typical profile:

1.5 inches to 0—slightly decomposed needles, twigs, and cones

0 to 2 inches—yellowish brown very stony coarse sandy loam

2 to 13 inches—light yellowish brown and very pale brown gravelly coarse sandy loam and very gravelly coarse sandy loam

13 to 25 inches—light gray extremely gravelly loamy coarse sand

25 to 60 inches—light gray extremely cobbly coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 3.0 inches

Effective rooting depth: 10 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soil

- A very deep, well drained soil that is gravelly sandy loam and in concave areas on moraines (15 percent)

Major Use

Woodland

Woodland

Forest habitat type: Struggle and Struggle, very stony—lodgepole pine/elk sedge

Average site index for lodgepole pine (110-year site curve): Struggle—77; Struggle, very stony—66

Estimated average annual production of lodgepole pine (culmination of mean annual increment (CMAI): Struggle—66 cubic feet per acre at 100 years of age; Struggle, very stony—55 cubic feet per acre at 100 years of age

Interpretive Groups

Land capability classification: Struggle and Struggle, very stony—6e, nonirrigated

211—Surrett gravelly loam, 2 to 8 percent slopes

Composition

Surrett and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,500 to 7,300 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 30 to 60 days

Characteristics of Surrett

Typical profile:

0 to 8 inches—dark brown and brown gravelly loam

8 to 27 inches—pale brown and light gray very gravelly loam and very gravelly sandy loam

27 to 36 inches—light gray hardpan

36 to 60 inches—multicolored extremely gravelly sandy loam and extremely gravelly loamy sand

Depth class: Moderately deep to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Available water capacity: 2 to 4 inches

Effective rooting depth: 21 to 35 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is gravelly loam over very gravelly loam and in mounds on fan terraces and outwash fans (10 percent)
- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly loam and in draws on fan terraces (5 percent)
- A well drained soil that is shallow to a hardpan, gravelly loam, and in convex areas on fan terraces and outwash fans (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site: LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

212—Surrett-Nurkey complex, 2 to 10 percent slopes

Composition

Surrett and similar soils—45 percent

Nurkey and similar soils—45 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Surrett—concave areas on fan terraces; Nurkey—convex areas on west-facing slopes of fan terraces

Elevation: 6,400 to 7,000 feet
Average annual precipitation: 13 to 16 inches
Average annual air temperature: 35 to 38 degrees F
Frost-free season: 30 to 60 days

Characteristics of Surrett

Typical profile:

0 to 10 inches—dark brown and brown gravelly loam
 10 to 30 inches—pale brown and brown very gravelly loam
 30 to 40 inches—light gray hardpan
 40 to 60 inches—very pale brown extremely gravelly sandy loam

Depth class: Moderately deep to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Available water capacity: 2 to 4 inches

Effective rooting depth: 21 to 35 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Nurkey

Typical profile:

0 to 4 inches—dark brown gravelly loam
 4 to 10 inches—brown gravelly clay loam
 10 to 20 inches—light yellowish brown very gravelly clay loam
 20 to 60 inches—very pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soil

- A very deep, well drained soil that is dark-colored very gravelly loam and on upper fan terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Surrett—6s, nonirrigated; Nurkey—6e, nonirrigated

Range site: Surrett—LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass; Nurkey—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass

213—Swahlen-Packham complex, 2 to 8 percent slopes

Composition

*Swahlen and similar soils—*65 percent

*Packham and similar soils—*20 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Swahlen—linear to convex areas on stream terraces;

Packham—linear to concave areas on stream terraces

Elevation: 4,000 to 5,600 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 42 to 44 degrees F

Frost-free season: 70 to 90 days

Characteristics of Swahlen

Typical profile:

0 to 2 inches—dark brown stony loam

2 to 8 inches—dark brown very gravelly loam

8 to 27 inches—brown very gravelly loam

27 to 60 inches—light brownish gray and light yellowish brown extremely gravelly coarse sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Packham

Typical profile:

0 to 5 inches—brown gravelly loam

5 to 32 inches—yellowish brown very gravelly loam and very gravelly sandy loam

32 to 60 inches—light yellowish brown very gravelly loamy sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 4.0 inches

Effective rooting depth: 20 to 35 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A very deep, somewhat excessively drained soil that is very gravelly sandy loam and on stream terraces (10 percent)
- A very deep, poorly drained soil that is gravelly loam over very gravelly loam and in concave areas on stream terraces (5 percent)

Major Uses

Irrigated cropland, pastureland, and hayland, and rangeland

Interpretive Groups

Land capability classification: Swahlen—4s, nonirrigated, and 3s, irrigated; Packham—6s, nonirrigated, and 4s, irrigated

Range site: Swahlen and Packham—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

214—Swahlen-Yearian complex, 0 to 4 percent slopes

Composition

Swahlen and similar soils—55 percent

Yearian and similar soils—30 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Swahlen—linear to convex areas on stream terraces; Yearian—linear to concave areas on stream terraces

Elevation: 4,000 to 5,600 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 42 to 44 degrees F

Frost-free season: 70 to 90 days

Characteristics of Swahlen

Typical profile:

0 to 2 inches—dark brown stony loam

2 to 8 inches—dark brown very gravelly loam

8 to 27 inches—brown very gravelly loam

27 to 60 inches—light brownish gray and light yellowish brown extremely gravelly coarse sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Yearian

Typical profile:

0 to 2 inches—dark brown very stony loam

2 to 12 inches—dark grayish brown very cobbly loam

12 to 60 inches—light brownish gray and light gray very gravelly loam, very gravelly sandy loam, and extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate

Available water capacity: 3.5 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in April through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soils

- A very deep, somewhat excessively drained soil that is very gravelly loamy sand and on stream terraces (10 percent)
- A very deep, well drained soil that is light-colored very gravelly loam and on stream terraces (5 percent)

Major Uses

Irrigated pastureland and hayland, and rangeland

Interpretive Groups

Land capability classification: Swahlen—4s, nonirrigated, and 3s, irrigated; Yearian—5w, nonirrigated and irrigated

Range site: Swahlen—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Yearian—WET MEADOW

215—Thosand-Chillybu complex, 0 to 2 percent slopes

Composition

Thosand and similar soils—55 percent

Chillybu and similar soils—35 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Flood plains (fig. 6)

Elevation: 4,800 to 6,400 feet

Average annual precipitation: 10 to 14 inches

Average annual air temperature: 36 to 42 degrees F

Frost-free season: 20 to 55 days

Characteristics of Thosand

Typical profile:

5 inches to 0—slightly decomposed organic material

0 to 5 inches—light gray silt loam

5 to 22 inches—gray and pale olive silt loam

22 to 39 inches—light olive gray gravelly silt loam

39 to 44 inches—pale olive very gravelly silt loam

44 to 60 inches—extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 5.5 to 8.5 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 12 inches above the surface to a depth of 12 inches below the surface in November through August

Periods of flooding: Frequency—occasional; duration—brief; months—April through July

Characteristics of Chillybu

Typical profile:

0 to 31 inches—dark brown, black, and very dark brown muck

31 to 42 inches—very dark brown muck

42 to 60 inches—greenish gray very gravelly loam

Depth class: Very deep

Drainage class: Very poorly drained

Permeability: Moderate

Effective rooting depth: 25 to 50 inches

Runoff: Slow



Figure 6.—Area of Thosand-Chillybu complex, 0 to 2 percent slopes. Calcids-Rubble land-Rock outcrop complex, 50 to 80 percent slopes, on mountains in background.

Hazard of water erosion: Slight

Shrink-swell potential: High

Depth to high water table: 6 inches above the surface to a depth of 6 inches below the surface in January through December

Periods of flooding: Frequency—frequent; duration—brief; months—April through July

Dissimilar Soil

- A very deep, somewhat poorly drained soil that is silt loam over gravelly silt loam and in convex areas on flood plains (10 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: Thosand and Chillybu—5w, nonirrigated and irrigated

Range site: Thosand—WET MEADOW; Chillybu—WET MEADOW (MUCK), willow/sedges

216—Thosand-Sancrane complex, 0 to 2 percent slopes

Composition

Thosand and similar soils—45 percent

Sancrane and similar soils—35 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Flood plains and stream terraces

Elevation: 4,800 to 6,400 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 25 to 45 days

Characteristics of Thosand

Typical profile:

5 inches to 0—slightly decomposed organic material

0 to 5 inches—light gray silt loam

5 to 22 inches—gray and pale olive silt loam

22 to 39 inches—light olive gray gravelly silt loam

39 to 44 inches—pale olive very gravelly silt loam

44 to 60 inches—extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 5.5 to 8.5 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 12 inches above the surface to a depth of 12 inches below the surface in November through August

Periods of flooding: Frequency—occasional; duration—brief; months—April through July

Characteristics of Sancrane

Typical profile:

0 to 2 inches—brownish gray silt loam

2 to 24 inches—light gray and light brownish gray silt loam

24 to 60 inches—light brownish gray very gravelly loamy sand and extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 5.5 to 8.5 inches

Effective rooting depth: 20 to 35 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 12 inches above the surface to a depth of 12 inches below the surface in November through July

Dissimilar Soils

- A poorly drained soil that is shallow to sand and gravel, silt loam, and on flood plains (10 percent)
- A very deep, poorly drained soil that is silt loam and on flood plains (10 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: Thosand and Sancrane—5w, nonirrigated and irrigated

Range site: Thosand and Sancrane—SEMIWET MEADOW, sedges

217—Thosand-Wiskisprings complex, 0 to 2 percent slopes

Composition

Thosand and similar soils—45 percent

Wiskisprings and similar soils—35 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Flood plains

Elevation: 4,800 to 6,400 feet

Average annual precipitation: 10 to 14 inches

Average annual air temperature: 36 to 42 degrees F

Frost-free season: 20 to 55 days

Characteristics of Thosand

Typical profile:

5 inches to 0—slightly decomposed organic material

0 to 5 inches—light gray silt loam

5 to 22 inches—gray and pale olive silt loam

22 to 39 inches—light olive gray gravelly silt loam

39 to 44 inches—pale olive very gravelly silt loam

44 to 60 inches—extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 5.5 to 8.5 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 12 inches above the surface to a depth of 12 inches below the surface in November through August

Periods of flooding: Frequency—occasional; duration—brief; months—April through July

Characteristics of Wiskisprings

Typical profile:

0 to 8 inches—dark brown silt loam

8 to 49 inches—dark grayish brown, brown, grayish brown, and olive silt loam

49 to 54 inches—olive gravelly loam

54 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 9 to 10 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in April through July

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soils

- Arco soils on flood plains (10 percent)
- A very deep, poorly drained soil that is dark-colored silt loam over silty clay loam and on flood plains (5 percent)
- A very deep, somewhat poorly drained soil that is silt loam over clay loam and on flood plains (5 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: Thosand and Wiskisprings—5w, nonirrigated and irrigated

Range site: Thosand—SEMIWET MEADOW, sedges; Wiskisprings—SEMIWET MEADOW

218—Threedot loam, 10 to 30 percent slopes

Composition

Threedot and similar soils—90 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Moraines

Elevation: 6,600 to 7,300 feet

Average annual precipitation: 14 to 20 inches

Average annual air temperature: 36 to 38 degrees F

Frost-free season: 20 to 50 days

Characteristics of Threedot

Typical profile:

0 to 8 inches—very dark grayish brown and dark brown loam

8 to 11 inches—brown clay loam

11 to 19 inches—yellowish brown and dark yellowish brown gravelly clay loam

19 to 51 inches—strong brown very gravelly clay

51 to 60 inches—brownish yellow very gravelly loam

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 5.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Depth to perched water table: 12 to 24 inches in April through June

Dissimilar Soil

- A very deep, well drained soil that is very stony loam over very gravelly clay and on ridges (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

219—Threedot gravelly loam, 5 to 30 percent slopes

Composition

*Threedot and similar soils—*80 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Moraines

Elevation: 6,800 to 7,500 feet

Average annual precipitation: 14 to 20 inches

Average annual air temperature: 36 to 38 degrees F

Frost-free season: 20 to 50 days

Characteristics of Threedot

Typical profile:

0 to 10 inches—dark grayish brown gravelly loam

10 to 29 inches—light brownish gray and strong brown very gravelly clay loam

29 to 60 inches—strong brown very gravelly clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 5.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Depth to a perched water table: 12 to 24 inches in April through June

Dissimilar Soils

- A very deep, well drained soil that is gravelly loam and in convex areas on moraines (10 percent)
- A moderately well drained soil that is deep to bedrock, loam over clay loam over very gravelly clay, and on ridges (5 percent)
- A very deep, poorly drained soil that is loam over clay loam over very gravelly clay loam and in concave areas on moraines (5 percent)

Major Uses

Rangeland and homesites

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: GRAVELLY LOAM 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

220—Threedot complex, 20 to 50 percent slopes

Composition

*Threedot, dry, and similar soils—*45 percent

Threedot and similar soils—35 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Threedot, dry—west-facing slopes of mountains; Threedot—north- and east-facing slopes of mountains

Elevation: 6,500 to 8,500 feet

Average annual precipitation: 14 to 22 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 10 to 50 days

Characteristics of Threedot, Dry

Typical profile:

0 to 6 inches—dark brown gravelly loam

6 to 28 inches—dark brown very gravelly clay loam

28 to 60 inches—brown very gravelly clay

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 5.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Depth to a perched water table: 12 to 24 inches in April through June

Characteristics of Threedot

Typical profile:

0 to 8 inches—very dark grayish brown and dark brown loam

8 to 11 inches—brown clay loam

11 to 19 inches—dark yellowish brown and yellowish brown gravelly clay loam

19 to 51 inches—strong brown very gravelly clay

51 to 60 inches—brownish yellow very gravelly loam

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Available water capacity: 5.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Depth to a perched water table: 12 to 24 inches in April through June

Dissimilar Soils

- A very deep, moderately well drained soil that is clay loam over very gravelly clay and on mountains (10 percent)
- A very deep, well drained soil that is very cobbly loam over cobbly clay loam over very gravelly loam and on ridges (5 percent)
- A very deep, moderately well drained soil that is very stony loam over gravelly clay loam over very gravelly clay and on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Threedot, dry, and Threedot—7e, nonirrigated

Range site: Threedot, dry—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue; Threedot—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

221—Typic Cryaquepts, 1 to 3 percent slopes

Composition

Typic Cryaquepts and similar soils—80 percent
Dissimilar soils—20 percent

Setting

Position on landscape: Flood plains
Elevation: 6,500 to 8,000 feet
Average annual precipitation: 8 to 13 inches
Average annual air temperature: 36 to 40 degrees F
Frost-free season: 30 to 60 days

Characteristics of Typic Cryaquepts

Representative profile:

- 0 to 7 inches—light brownish gray silt loam
- 7 to 13 inches—light gray silty clay loam
- 13 to 35 inches—light gray very fine sandy loam
- 35 to 60 inches—white silty clay loam

Depth class: Very deep

Drainage class: Poorly drained or somewhat poorly drained

Permeability: Moderately slow

Available water capacity: 5 to 12 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 12 to 30 inches in April through June

Dissimilar Soils

- A very deep, moderately well drained soil that is sandy loam and on flood plains (10 percent)
- A very deep, poorly drained soil that is silt loam over silty clay and on flood plains (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 5w, nonirrigated

Range site: ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass

222—Ureal-Zeebar-Dacont complex, 20 to 50 percent slopes

Composition

Ureal and similar soils—40 percent
Zeebar and similar soils—30 percent

Dacont and similar soils—15 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Ureal—convex areas on south- and west-facing slopes of mountains at an elevation of more than 6,000 feet and on all aspects at an elevation of less than 6,000 feet; Zeebar—north- and east-facing slopes of mountains; Dacont—concave areas on south- and west-facing slopes of mountains

Elevation: 5,200 to 7,000 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free season: 45 to 90 days

Characteristics of Ureal

Typical profile:

0 to 7 inches—brown very cobbly sandy loam

7 to 14 inches—brown extremely gravelly sandy loam

14 to 24 inches—moderately cemented tuff

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderately rapid

Available water capacity: 0.5 to 1.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Zeebar

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 13 inches—brown very gravelly loam

13 to 19 inches—brown very gravelly clay loam

19 to 29 inches—pale brown extremely gravelly clay loam

29 to 60 inches—pale brown and very pale brown extremely gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Dacont

Typical profile:

0 to 4 inches—brown very cobbly loam

4 to 10 inches—brown very gravelly loam

10 to 18 inches—yellowish brown very gravelly loam and extremely gravelly loam

18 to 60 inches—yellowish brown and light yellowish brown extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A well drained soil that is moderately deep to bedrock, very gravelly sandy loam, and on ridges and in convex areas of mountains (10 percent)
- A very deep, well drained soil that is dark-colored very gravelly loam and in drainageways on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Ureal, Zeebar, and Dacont—6e, nonirrigated

Range site: Ureal and Dacont—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ,

Wyoming big sagebrush/bluebunch wheatgrass; Zeebar—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

223—Venum-Cronks complex, 20 to 50 percent slopes

Composition

Venum and similar soils—50 percent

Cronks and similar soils—40 percent

Dissimilar areas—10 percent

Setting

Position on landscape: Mountains and hills

Elevation: 4,500 to 6,500 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 37 to 44 degrees F

Frost-free season: 60 to 90 days

Characteristics of Venum

Typical profile:

0 to 2 inches—brown very cobbly loam

2 to 20 inches—pale brown, light yellowish brown, and brownish yellow very gravelly clay loam

20 to 42 inches—pale brown and light yellowish brown very gravelly clay loam

42 to 60 inches—very pale brown extremely gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Characteristics of Cronks

Typical profile:

0 to 10 inches—brown very cobbly loam

10 to 35 inches—brown very cobbly clay

35 to 55 inches—pale brown very cobbly silt loam

55 to 70 inches—pale brown very cobbly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.5 to 7.0 inches
Effective rooting depth: 60 inches or more
Runoff: Rapid
Hazard of water erosion: Severe
Shrink-swell potential: High

Dissimilar Areas

- Rock outcrop on mountains and hills (5 percent)
- Rubble land on mountains and hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Venum—7e, nonirrigated; Cronks—7s, nonirrigated
Range site: Venum and Cronks—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ,
 Wyoming big sagebrush/bluebunch wheatgrass

224—Venum-Rock outcrop complex, 25 to 55 percent slopes

Composition

*Venum and similar soils—*60 percent
*Rock outcrop—*20 percent
*Dissimilar areas—*20 percent

Setting

Position on landscape: Venum—north- and east-facing slopes of mountains and ridges;
 Rock outcrop—mountains and ridges
Elevation: 5,500 to 6,400 feet
Average annual precipitation: 9 to 11 inches
Average annual air temperature: 37 to 42 degrees F
Frost-free season: 60 to 80 days

Characteristics of Venum

Typical profile:

0 to 2 inches—pale brown stony loam
 2 to 9 inches—yellowish brown very gravelly clay loam
 9 to 26 inches—yellowish brown very gravelly clay loam
 26 to 60 inches—light yellowish brown extremely gravelly clay loam and very gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Description of Rock Outcrop

Cliffs, outcroppings, and other exposed areas of bare rock of varying geologic origin

Dissimilar Areas

- A very deep, well drained soil that is very bouldery loam over very cobbly clay loam over very cobbly clay and on south- and west-facing mountain slopes (10 percent)
- A very deep, well drained soil that is dark-colored very cobbly loam over very gravelly clay loam over very gravelly clay and in concave areas on mountains (5 percent)
- Rubble land on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Venum—7e, nonirrigated; Rock outcrop—8

Range site: Venum—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

225—Venum-Custco association, 20 to 50 percent slopes

Composition

Venum and similar soils—55 percent

Custco and similar soils—30 percent

Dissimilar areas—15 percent

Venum

Setting

Position on landscape: South- and west-facing mountain slopes

Elevation: 5,000 to 6,500 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 42 degrees F

Frost-free season: 60 to 80 days

Soil characteristics

Typical profile:

0 to 2 inches—brown very cobbly loam

2 to 20 inches—pale brown very gravelly clay loam

20 to 42 inches—light yellowish brown very gravelly clay loam

42 to 60 inches—very pale brown extremely gravelly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.5 to 7.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Custco

Setting

Position on landscape: North- and east-facing mountain slopes

Elevation: 5,000 to 6,500 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 60 to 80 days

Soil characteristics*Typical profile:*

0 to 4 inches—dark grayish brown gravelly loam

4 to 17 inches—brown very gravelly loam

17 to 60 inches—pale brown extremely gravelly sandy loam and extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 3.0 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A well drained soil that is shallow to bedrock, very gravelly loam, and in convex areas on ridges and near areas of Rock outcrop (10 percent)
- Rubble land on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Venum—7e, nonirrigated; Custco—6e, nonirrigated

Range site: Venum—SOUTH SLOPE GRAVELLY 11 TO 13 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Custco—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

226—Whitecloud gravelly loam, cold, 2 to 6 percent slopes***Composition***

*Whitecloud and similar soils—*85 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,200 to 7,000 feet

Average annual precipitation: 9 to 11 inches

Average annual air temperature: 38 to 40 degrees F

Frost-free season: 55 to 70 days

Characteristics of Whitecloud*Typical profile:*

0 to 3 inches—brown gravelly loam

3 to 18 inches—pale brown and very pale brown very gravelly loam and very gravelly sandy loam

18 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Leatherman soils on outwash fans and fan terraces (10 percent)
- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly loam and in drainageways on fan terraces and outwash fans (5 percent)

Major Uses

Irrigated pastureland and hayland, and rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated and irrigated

Range site: WINDSWEPT 8 TO 11 INCH PZ, silver chickensage-fringed sagewort/
Sandberg bluegrass-needleandthread

227—Whitecloud gravelly loam, low precipitation, 2 to 8 percent slopes

Composition

*Whitecloud and similar soils—*80 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 5,500 to 6,200 feet

Average annual precipitation: 8 to 9 inches

Average annual air temperature: 40 to 43 degrees F

Frost-free season: 70 to 90 days

Characteristics of Whitecloud

Typical profile:

0 to 4 inches—grayish brown gravelly loam

4 to 14 inches—pale brown gravelly loam

14 to 60 inches—light brownish gray extremely gravelly loamy coarse sand and very gravelly sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- A well drained soil that is shallow to a hardpan, gravelly loam over very gravelly loam, and on fan terraces and outwash fans (10 percent)
- A very deep, well drained soil that is gravelly loam and in drainageways on fan terraces and on toeslopes (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site: LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass

228—Whitecloud-Sanfelipe-Fandow complex, 5 to 15 percent slopes

Composition

*Whitecloud and similar soils—*40 percent

*Sanfelipe and similar soils—*25 percent

*Fandow and similar soils—*20 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,000 to 7,000 feet

Average annual precipitation: 9 to 11 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free season: 50 to 80 days

Characteristics of Whitecloud

Typical profile:

0 to 5 inches—pale brown gravelly loam

5 to 14 inches—very pale brown very gravelly sandy loam

14 to 60 inches—pale brown, very pale brown, white, and light gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 10 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Sanfelipe

Typical profile:

0 to 8 inches—grayish brown and brown gravelly loam

8 to 38 inches—yellowish brown and white very gravelly sandy loam and extremely gravelly sandy loam

38 to 60 inches—light brownish gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 3.0 to 5.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Fandow

Typical profile:

0 to 4 inches—grayish brown gravelly loam

4 to 16 inches—pale brown and light brownish gray very gravelly loam and very gravelly sandy loam

16 to 25 inches—light brownish gray hardpan

25 to 60 inches—light gray extremely gravelly loamy coarse sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Available water capacity: 1 to 2 inches

Effective rooting depth: 10 to 16 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A well drained soil that is moderately deep to a hardpan, gravelly loam over very gravelly loam, and on fan terraces and outwash fans (10 percent)
- A very deep, well drained soil that is gravelly loam and in drainageways on fan terraces and outwash fans (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Whitecloud—6s, nonirrigated; Sanfelipe—6e, nonirrigated; Fandow—7s, nonirrigated

Range site: Whitecloud—WINDSWEPT 8 TO 11 INCH PZ, silver chickensage-fringed sagewort/Sandberg bluegrass-needleandthread; Sanfelipe—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Fandow—LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass

229—Whitecloud-Simeroi complex, 2 to 8 percent slopes

Composition

*Whitecloud and similar soils—*65 percent

*Simeroi and similar soils—*25 percent

*Dissimilar soils—*10 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 5,500 to 6,500 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 40 to 44 degrees F

Frost-free season: 70 to 100 days

Characteristics of Whitecloud

Typical profile:

0 to 2 inches—pale brown gravelly loam

2 to 6 inches—pale brown very gravelly loam

6 to 17 inches—pale brown and very pale brown very gravelly sandy loam and extremely gravelly sandy loam

17 to 60 inches—light brownish gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Simeroi

Typical profile:

0 to 3 inches—grayish brown gravelly loam

3 to 16 inches—pale brown, light yellowish brown, and very pale brown very gravelly loam

16 to 54 inches—light gray and pale brown very gravelly sandy loam

54 to 60 inches—pale brown extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.0 to 4.5 inches

Effective rooting depth: 2 to 18 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Paint soils on fan terraces and outwash fans (10 percent)

Major Uses

Irrigated hayland and pastureland, and rangeland

Interpretive Groups

Land capability classification: Whitecloud—6s, nonirrigated, and 4s, irrigated;

Simeroi—6e, nonirrigated, and 3e, irrigated

Range site: Whitecloud and Simeroi—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

230—Whiteknob gravelly loam, 2 to 8 percent slopes

Composition

Whiteknob and similar soils—90 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 5,700 to 6,500 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 39 to 42 degrees F

Frost-free season: 70 to 80 days

Characteristics of Whiteknob

Typical profile:

0 to 4 inches—pale brown gravelly loam

4 to 7 inches—brown gravelly loam

7 to 11 inches—pale brown very gravelly sandy loam

11 to 60 inches—light gray, very pale brown, and light yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 3.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Zer soils on lower outwash fans and fan terraces (10 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: 6s, nonirrigated, and 4s, irrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

231—Whiteknob-Leadore complex, 2 to 8 percent slopes

Composition

Whiteknob and similar soils—60 percent

Leadore and similar soils—30 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Whiteknob—convex areas on outwash fans and fan terraces;
Leadore—concave areas on outwash fans and fan terraces

Elevation: 5,200 to 6,500 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 40 degrees F

Frost-free season: 65 to 85 days

Characteristics of Whiteknob

Typical profile:

0 to 3 inches—pale brown gravelly loam

3 to 9 inches—pale brown gravelly loam

9 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 3.5 inches

Effective rooting depth: 8 to 10 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Leadore

Typical profile:

0 to 3 inches—brown gravelly loam

3 to 20 inches—pale brown gravelly loam and very gravelly sandy loam

20 to 60 inches—multicolored extremely gravelly loamy sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2 to 4 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Oxhead soils on convex remnant ridges (10 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: Whiteknob—6s, nonirrigated, and 4s, irrigated;

Leadore—6e, nonirrigated, and 4e, irrigated

Range site: Whiteknob and Leadore—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

232—Whiteknob-Zer complex, 2 to 6 percent slopes

Composition

Whiteknob and similar soils—60 percent

Zer and similar soils—20 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Whiteknob—linear to convex areas on outwash fans and fan terraces; Zer—linear to convex areas on fan terraces

Elevation: 5,700 to 6,500 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 40 to 44 degrees F

Frost-free season: 70 to 90 days

Characteristics of Whiteknob

Typical profile:

0 to 4 inches—pale brown gravelly loam

4 to 7 inches—brown gravelly loam

7 to 11 inches—pale brown very gravelly sandy loam

11 to 60 inches—light gray, very pale brown, and light yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 3.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Zer

Typical profile:

0 to 3 inches—pale brown gravelly loam

3 to 9 inches—brown very gravelly loam

9 to 21 inches—light gray very gravelly sandy loam

21 to 60 inches—pale brown extremely gravelly sandy loam
Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate in the upper part and rapid in the lower part
Available water capacity: 2.5 to 4.5 inches
Effective rooting depth: 60 inches or more
Runoff: Slow
Hazard of water erosion: Slight

Dissimilar Soils

- Ringle soils on outwash fans and fan terraces (10 percent)
- Sparmo soils on outwash fans and fan terraces (10 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: Whiteknob—6s, nonirrigated, and 4s, irrigated;
 Zer—6e, nonirrigated, and 4e, irrigated
Range site: Whiteknob and Zer—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big
 sagebrush/bluebunch wheatgrass

233—Wiggleton gravelly silt loam, 2 to 10 percent slopes

Composition

Wiggleton and similar soils—85 percent
Dissimilar soils—15 percent

Setting

Position on landscape: Fan terraces and outwash fans
Elevation: 6,200 to 7,500 feet
Average annual precipitation: 13 to 20 inches
Average annual air temperature: 36 to 40 degrees F
Frost-free season: 30 to 60 days

Characteristics of Wiggleton

Typical profile:

- 0 to 6 inches—brown gravelly silt loam
- 6 to 12 inches—dark brown very gravelly coarse sandy loam
- 12 to 60 inches—grayish brown, pale brown, and very pale brown extremely gravelly loamy coarse sand and extremely gravelly sand

Depth class: Very deep
Drainage class: Somewhat excessively drained
Permeability: Moderately rapid in the upper part and very rapid in the lower part
Available water capacity: 2 to 3 inches
Effective rooting depth: 10 to 18 inches
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly loam and in mounds on outwash fans and fan terraces (10 percent)

- A well drained soil that is moderately deep to bedrock, gravelly loam over very gravelly sandy loam, and in convex areas on outwash fans and fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6s, nonirrigated

Range site: NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

234—Wiggleton-Copperbasin complex, 0 to 4 percent slopes

Composition

*Wiggleton and similar soils—*45 percent

*Copperbasin and similar soils—*35 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Wiggleton—convex areas on outwash fans and stream terraces;
Copperbasin—linear to concave areas on flood plains and stream terraces

Elevation: 6,700 to 7,100 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free season: 30 to 60 days

Characteristics of Wiggleton

Typical profile:

0 to 5 inches—dark grayish brown very gravelly sandy loam

5 to 11 inches—brown extremely gravelly sandy loam

11 to 60 inches—pale brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 2 to 3 inches

Effective rooting depth: 10 to 18 inches

Runoff: Slow

Hazard of water erosion: Slight

Frequency of flooding: Rare

Characteristics of Copperbasin

Typical profile:

0 to 10 inches—black and very dark brown gravelly fine sandy loam

10 to 27 inches—dark grayish brown and yellowish brown extremely gravelly loamy sand

27 to 60 inches—strong brown and yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 42 inches in March through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soils

- Castlepeak soils in convex areas on stream terraces and outwash fans (5 percent)
- Redfish soils in concave areas on flood plains and stream terraces (10 percent)
- A very deep, well drained soil that is gravelly sandy loam over extremely gravelly loam and in upper convex areas on outwash fans (5 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: Wiggleton—6s, nonirrigated and irrigated; Copperbasin—6c, nonirrigated and irrigated

Range site: Wiggleton—GRAVELLY LOAM 16 TO 22 INCH PZ, mountain sagebrush/ Idaho fescue; Copperbasin—MOUNTAIN WET MEADOW

235—Wimpey-Zeph-Ajax complex, 0 to 2 percent slopes

Composition

Wimpey and similar soils—35 percent

Zeph and similar soils—30 percent

Ajax and similar soils—20 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Wimpey—linear areas on flood plains; Zeph—convex areas on flood plains; Ajax—concave areas on flood plains

Elevation: 3,700 to 5,200 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 42 to 44 degrees F

Frost-free season: 70 to 90 days

Characteristics of Wimpey

Typical profile:

1 inch to 0—moderately decomposed roots, stems, and leaves

0 to 3 inches—dark gray silty clay

3 to 14 inches—grayish brown silty clay

14 to 27 inches—dark grayish brown silty clay loam

27 to 60 inches—multicolored extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Slow in the upper part and very rapid in the lower part

Available water capacity: 5 to 6 inches

Effective rooting depth: 20 to 35 inches

Runoff: Slow

Hazard of water erosion: Slight

Shrink-swell potential: High

Depth to high water table: 18 to 36 inches in March through July

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Zeph

Typical profile:

3 inches to 0—moderately decomposed roots

0 to 5 inches—gray silty clay

5 to 23 inches—gray and yellowish red very gravelly coarse sand and extremely gravelly coarse sand

23 to 60 inches—multicolored extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Slow in the surface layer and very rapid in the substratum

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in March through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Ajax

Typical profile:

0 to 11 inches—grayish brown silty clay

11 to 32 inches—grayish brown silty clay loam

32 to 60 inches—light brownish gray silty clay loam

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Slow

Available water capacity: 7 to 12 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Shrink-swell potential: High

Depth to high water table: 6 to 12 inches in March through July

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soils

- A very deep, poorly drained soil that is silty clay over very gravelly loam and on flood plains (10 percent)
- A very deep, poorly drained soil that is dark-colored silty clay loam over very gravelly sandy loam and on flood plains (5 percent)

Major Uses

Irrigated pastureland and hayland, and rangeland

Interpretive Groups

Land capability classification: Wimpey and Zeph—4w, nonirrigated and irrigated; Ajax—5w, nonirrigated and irrigated

Range site: Wimpey—SEMIWET MEADOW; Zeph—SEMIWET MEADOW, sedges; Ajax—WET MEADOW

236—Windcoat gravelly silt loam, 2 to 6 percent slopes

Composition

Windcoat and similar soils—90 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,700 to 7,200 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 36 to 38 degrees F

Frost-free season: 40 to 60 days

Characteristics of Windcoat

Typical profile:

0 to 3 inches—pale brown gravelly silt loam

3 to 14 inches—pale brown and very pale brown gravelly silt loam and gravelly loam

14 to 18 inches—white hardpan

18 to 60 inches—multicolored extremely gravelly coarse sandy loam and extremely gravelly loamy coarse sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 9 to 15 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Geemore soils on east- and southeast-facing drainageways (5 percent)
- A well drained soil that is shallow to a hardpan, very gravelly loam, and on mounds on outwash fans and fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ, low sagebrush/
bluebunch wheatgrass

237—Windcoat-Fadow complex, 5 to 20 percent slopes

Composition

Windcoat and similar soils—45 percent

Fadow and similar soils—35 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Outwash fans and fan terraces

Elevation: 6,000 to 7,000 feet

Average annual precipitation: 8 to 10 inches
Average annual air temperature: 36 to 38 degrees F
Frost-free season: 40 to 60 days

Characteristics of Windcoat

Typical profile:

0 to 5 inches—pale brown gravelly silt loam
 5 to 15 inches—pale brown gravelly silt loam
 15 to 18 inches—white hardpan
 18 to 60 inches—light brownish gray extremely gravelly coarse sandy loam

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 9 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Fandow

Typical profile:

0 to 7 inches—pale brown gravelly loam
 7 to 15 inches—pale brown very gravelly loam
 15 to 17 inches—white hardpan
 17 to 60 inches—light brownish gray and light gray extremely gravelly loamy coarse sand

Depth class: Shallow to a hardpan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Available water capacity: 1 to 2 inches

Effective rooting depth: 10 to 16 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A well drained soil that is moderately deep to a hardpan, very gravelly loam, and in drainageways on fan terraces and outwash fans (10 percent)
- A very deep, well drained soil that is very gravelly loam and on outwash fans and fan terraces (10 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Windcoat—6e, nonirrigated; Fandow—7s, nonirrigated
Range site: Windcoat—SHALLOW GRAVELLY LOAM 8 TO 12 INCH PZ, low sagebrush/bluebunch wheatgrass; Fandow—LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass

238—Wiskisprings-Biglost complex, 0 to 3 percent slopes

Composition

Wiskisprings and similar soils—45 percent

Biglost and similar soils—35 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Wiskisprings—concave areas on flood plains; Biglost—convex areas on flood plains (fig. 7)

Elevation: 4,800 to 6,400 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free season: 35 to 60 days

Characteristics of Wiskisprings

Typical profile:

0 to 8 inches—dark brown silt loam

8 to 49 inches—dark grayish brown, brown, grayish brown, and olive silt loam

49 to 54 inches—olive gravelly loam

54 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 9 to 10 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in April through July

Periods of flooding: Frequency—frequent; duration—brief; months—January through June



Figure 7.—Area of Wiskisprings-Biglost complex, 0 to 3 percent slopes. The poorly drained Wiskisprings soil is in the lower lying, concave areas on flood plains, and the moderately well drained Biglost soil is in the higher lying, convex areas on flood plains.

Characteristics of Biglost

Typical profile:

0 to 5 inches—dark grayish brown silt loam

5 to 26 inches—brown and dark grayish brown silt loam

26 to 60 inches—light brownish gray extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 20 to 30 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 30 to 54 inches in May through September

Periods of flooding: Frequency—frequent; duration—brief; months—March through June

Dissimilar Soils

- Copperbasin soils on remnant gravel bars on flood plains (10 percent)
- A somewhat poorly drained soil that is shallow to sand and gravel, very cobbly sandy loam, and near stream channels (10 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: Wiskisprings—5w, nonirrigated and irrigated; Biglost—6s, nonirrigated and irrigated

Range site: Wiskisprings—SEMIWET MEADOW; Biglost—ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass

239—Wiskisprings-Biglost-Copperbasin complex, 0 to 3 percent slopes

Composition

Wiskisprings and similar soils—40 percent

Biglost and similar soils—30 percent

Copperbasin and similar soils—20 percent

Dissimilar soil—10 percent

Setting

Position on landscape: Wiskisprings—concave areas on flood plains; Biglost and Copperbasin—all aspects of flood plains

Elevation: 4,800 to 6,600 feet

Average annual precipitation: 10 to 13 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free season: 30 to 50 days

Characteristics of Wiskisprings

Typical profile:

0 to 8 inches—dark brown silt loam

8 to 49 inches—dark grayish brown, brown, grayish brown, and olive silt loam

49 to 54 inches—olive gravelly loam

54 to 60 inches—multicolored extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 9 to 10 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in April through July

Periods of flooding: Frequency—frequent; duration—brief; months—January through June

Characteristics of Biglost

Typical profile:

0 to 5 inches—dark grayish brown silt loam

5 to 26 inches—brown and dark brown silt loam

26 to 60 inches—light brownish gray extremely gravelly loamy fine sand and extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 20 to 30 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 30 to 54 inches in May through September

Periods of flooding: Frequency—frequent; duration—brief; months—March through June

Characteristics of Copperbasin

Typical profile:

0 to 5 inches—grayish brown very gravelly fine sandy loam

5 to 25 inches—multicolored extremely gravelly loamy fine sand and extremely gravelly loamy sand

25 to 33 inches—multicolored extremely cobbly sand

33 to 60 inches—multicolored extremely gravelly coarse sand

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Available water capacity: 1.5 to 2.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 18 to 42 inches in March through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soil

- A very deep, well drained soil that is light-colored extremely gravelly sand and on gravel bars on flood plains (10 percent)

Major Uses

Irrigated pastureland and hayland, and rangeland

Interpretive Groups

Land capability classification: Wiskisprings—5w, nonirrigated and irrigated;
Biglost—6s, nonirrigated and irrigated; Copperbasin—6c, nonirrigated and irrigated

Range site: Wiskisprings—SEMIWET MEADOW; Biglost—ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass; Copperbasin—RIVERBOTTOM 10 TO 16 INCH PZ, black cottonwood/western wheatgrass

240—Xeric Torrifluvents, 1 to 3 percent slopes

Composition

Xeric Torrifluvents and similar soils—75 percent

Dissimilar soils—25 percent

Setting

Position on landscape: Flood plains

Elevation: 5,400 to 6,500 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 50 to 80 days

Characteristics of Xeric Torrifluvents

Representative profile:

0 to 3 inches—light olive brown loam

3 to 44 inches—light yellowish brown, pale brown, light olive, and yellowish brown loam and gravelly loam

44 to 60 inches—yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 9 to 10 inches

Effective rooting depth: 40 to 60 inches

Runoff: Slow

Hazard of water erosion: Slight

Periods of flooding: Frequency—occasional; duration—very brief; months—March through September

Dissimilar Soils

- A very deep, well drained soil that is gravelly loam over very gravelly loam and on terraces (10 percent)
- A very deep, well drained soil that is calcareous gravelly loam over very gravelly loam and on terraces (10 percent)
- A very deep, well drained soil that is dark-colored loam over gravelly loam and on valley floors (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 4e, nonirrigated

Range site: ALLUVIAL BOTTOM 8 TO 13 INCH PZ, basin big sagebrush/western wheatgrass

241—Yearian very stony loam, 1 to 4 percent slopes

Composition

Yearian and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Linear to concave areas on stream terraces

Elevation: 4,000 to 5,500 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free season: 75 to 100 days

Characteristics of Yearian

Typical profile:

0 to 2 inches—dark brown very stony loam

2 to 12 inches—dark grayish brown very cobbly loam

12 to 60 inches—light brownish gray and light gray very gravelly loam, very gravelly sandy loam, and extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate

Available water capacity: 3.5 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to water table: 6 to 12 inches in April through June

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soils

- A very deep, poorly drained soil that is very cobbly loam and on stream terraces (10 percent)
- A very deep, moderately well drained soil that is very stony loam and in convex areas on stream terraces (10 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: 5w, nonirrigated and irrigated

Range site: WET MEADOW

242—Yearian very stony loam, 4 to 8 percent slopes

Composition

Yearian and similar soils—80 percent

Dissimilar soils—20 percent

Setting

Position on landscape: Linear to concave areas near springs and seep areas on stream terraces

Elevation: 4,000 to 5,500 feet
Average annual precipitation: 11 to 13 inches
Average annual air temperature: 38 to 42 degrees F
Frost-free season: 75 to 100 days

Characteristics of Yearian

Typical profile:

0 to 2 inches—dark brown very stony loam
 2 to 12 inches—dark grayish brown very cobbly loam
 12 to 60 inches—light brownish gray and light gray very gravelly loam, very gravelly sandy loam, and extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate

Available water capacity: 3.5 to 6.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in April through June

Dissimilar Soils

- A very deep, poorly drained soil that is very cobbly loam and on stream terraces (10 percent)
- A very deep, moderately well drained soil that is very gravelly loam and in convex areas on stream terraces (10 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: 6w, nonirrigated and irrigated

Range site: WET MEADOW

243—Zeale-Meegero complex, 4 to 20 percent slopes

Composition

Zeale and similar soils—75 percent

Meegero and similar soils—15 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Zeale—linear to convex areas on fan terraces and hills;
 Meegero—concave areas on north- and east-facing slopes of fan terraces and hills

Elevation: 6,500 to 8,000 feet

Average annual precipitation: 12 to 16 inches

Average annual air temperature: 34 to 42 degrees F

Frost-free season: 30 to 60 days

Characteristics of Zeale

Typical profile:

0 to 9 inches—brown gravelly loam

9 to 60 inches—strong brown and reddish yellow very gravelly loam and extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.0 to 7.5 inches

Effective rooting depth: 5 to 15 inches

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Meegero

Typical profile:

0 to 10 inches—dark brown loam

10 to 19 inches—dark brown gravelly loam

19 to 29 inches—light yellowish brown very gravelly loam

29 to 60 inches—very pale brown and light gray extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 6 inches

Effective rooting depth: 5 to 15 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Bockston soils in draws on fan terraces (5 percent)
- Zer soils in draws on fan terraces and hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Zeale and Meegero—6e, nonirrigated

Range site: Zeale—SHALLOW LOAM, 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass; Meegero—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

244—Zeale-Meegero complex, 20 to 40 percent slopes

Composition

Zeale and similar soils—55 percent

Meegero and similar soils—30 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Zeale—convex areas on mountains; Meegero—concave areas on mountains

Elevation: 6,500 to 8,500 feet

Average annual precipitation: 12 to 20 inches

Average annual air temperature: 34 to 42 degrees F

Frost-free season: 30 to 60 days

Characteristics of Zeale

Typical profile:

0 to 9 inches—brown gravelly loam

9 to 60 inches—strong brown and reddish yellow very gravelly loam and extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.0 to 7.5 inches

Effective rooting depth: 5 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Meegero

Typical profile:

0 to 10 inches—dark brown loam

10 to 19 inches—dark brown gravelly loam

19 to 29 inches—light yellowish brown very gravelly loam

29 to 60 inches—very pale brown and light gray extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4 to 6 inches

Effective rooting depth: 5 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A well drained soil that is moderately deep to bedrock, extremely gravelly loam, and on ridges (10 percent)
- Rock outcrop on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Zeale and Meegero—6e, nonirrigated

Range site: Zeale—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass; Meegero—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

245—Zeale-Zeelnot complex, 15 to 35 percent slopes

Composition

Zeale and similar soils—45 percent

Zeelnot and similar soils—30 percent

Dissimilar areas—25 percent

Setting

Position on landscape: Mountains and hills

Elevation: 7,200 to 8,000 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 39 degrees F

Frost-free season: 20 to 40 days

Characteristics of Zeale

Typical profile:

0 to 9 inches—dark brown gravelly loam

9 to 60 inches—strong brown and yellowish red very gravelly loam and extremely cobbly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.0 to 7.5 inches

Effective rooting depth: 5 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Zeelnot

Typical profile:

0 to 10 inches—dark brown gravelly loam

10 to 24 inches—yellowish brown and light yellowish brown very gravelly loam

24 to 32 inches—light yellowish brown extremely gravelly loam

32 to 60 inches—pale yellow extremely cobbly clay loam and extremely cobbly silty clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A well drained soil that is moderately deep to bedrock, gravelly loam over very gravelly loam, and on hills and mountains (10 percent)
- A well drained soil that is shallow to bedrock, very gravelly loam, and on ridges (10 percent)
- Rock outcrop on mountains and hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Zeale and Zeelnot—6e, nonirrigated

Range site: Zeale—SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass; Zeelnot—LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

246—Zeebar-Nielsen-Povey complex, 20 to 70 percent slopes

Composition

Zeebar and similar soils—35 percent

Nielsen and similar soils—30 percent

Povey and similar soils—20 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Zeebar—mountain slopes; Nielsen—convex areas on mountains; Povey—concave areas on mountains

Elevation: 6,000 to 7,500 feet

Average annual precipitation: 16 to 20 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free season: 30 to 60 days

Characteristics of Zeebar

Slope: 20 to 50 percent

Typical profile:

0 to 8 inches—dark brown gravelly loam

8 to 22 inches—dark yellowish brown and yellowish brown very gravelly loam

22 to 35 inches—light olive brown very gravelly sandy clay loam

35 to 49 inches—light olive brown extremely gravelly sandy clay loam

49 to 60 inches—light olive brown extremely gravelly sandy clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Nielsen

Slope: 20 to 50 percent

Typical profile:

0 to 3 inches—dark grayish brown cobbly loam

3 to 15 inches—dark grayish brown very gravelly clay loam and extremely gravelly clay loam

15 to 25 inches—indurated andesite

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 1.0 to 2.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Povey

Slope: 40 to 70 percent

Typical profile:

0 to 4 inches—brown very gravelly loam

4 to 16 inches—brown very gravelly sandy loam

16 to 60 inches—light yellowish brown very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 4.0 to 5.5 inches

Effective rooting depth: 60 inches or more

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Areas

- A well drained soil that is moderately deep to bedrock, gravelly loam over gravelly clay loam, and in convex areas on mountains (10 percent)
- Rock outcrop on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Zeebar—6e, nonirrigated; Nielsen and Povey—7e, nonirrigated

Range site: Zeebar and Povey—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Nielsen—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

247—Zeebar-Parkay complex, 20 to 50 percent slopes***Composition***

Zeebar and similar soils—55 percent

Parkay and similar soils—30 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Zeebar—convex areas on north- and east-facing mountain slopes; Parkay—concave areas on north- and east-facing mountain slopes

Elevation: 6,000 to 7,000 feet

Average annual precipitation: 14 to 18 inches

Average annual air temperature: 36 to 38 degrees F

Frost-free season: 30 to 50 days

Characteristics of Zeebar

Typical profile:

0 to 2 inches—very dark brown gravelly loam

2 to 9 inches—very dark grayish brown gravelly loam

9 to 16 inches—dark grayish brown very gravelly sandy clay loam

16 to 32 inches—brown extremely gravelly sandy clay loam

32 to 60 inches—brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Parkay

Typical profile:

0 to 10 inches—very dark grayish brown gravelly loam

10 to 17 inches—very dark grayish brown very gravelly loam

17 to 26 inches—dark grayish brown, yellowish brown, and pale brown very gravelly clay loam

26 to 60 inches—light yellowish brown very gravelly clay loam

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderate
Available water capacity: 3.5 to 5.5 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Areas

- A very deep, well drained soil that is very gravelly loam and on south-facing mountain slopes (10 percent)
- Rock outcrop on mountainsides (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Zeebar and Parkay—6e, nonirrigated
Range site: Zeebar and Parkay—NORTH SLOPE LOAMY 12 TO 16 INCH PZ, threetip sagebrush/Idaho fescue

248—Zeebar-Resoot complex, 20 to 50 percent slopes

Composition

Zeebar and similar soils—45 percent
Resoot and similar soils—35 percent
Dissimilar soils—20 percent

Setting

Position on landscape: Zeebar—concave areas on north- and east-facing mountain slopes; Resoot—linear to convex areas on north- and east-facing mountain slopes
Elevation: 6,500 to 8,000 feet
Average annual precipitation: 14 to 18 inches
Average annual air temperature: 36 to 38 degrees F
Frost-free season: 30 to 50 days

Characteristics of Zeebar

Typical profile:

- 0 to 5 inches—dark grayish brown gravelly loam
- 5 to 15 inches—dark brown and dark yellowish brown very gravelly loam
- 15 to 38 inches—yellowish brown and pale brown extremely gravelly sandy clay loam
- 38 to 60 inches—pale brown extremely gravelly loam

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Available water capacity: 3.5 to 5.0 inches
Effective rooting depth: 60 inches or more
Runoff: Medium
Hazard of water erosion: Moderate

Characteristics of Resoot

Typical profile:

- 0 to 3 inches—dark grayish brown gravelly loam

3 to 10 inches—grayish brown very gravelly clay loam
 10 to 60 inches—pale brown and very pale brown very gravelly clay loam and
 very gravelly clay

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Available water capacity: 3.5 to 6.0 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Shrink-swell potential: High

Dissimilar Soils

- A very deep, poorly drained soil that is gravelly loam over very gravelly clay loam and in seep areas and drainageways on mountains (10 percent)
- A very deep, well drained soil that is light-colored very gravelly loam and in drainageways on mountains (5 percent)
- A well drained soil that is moderately deep to bedrock, gravelly loam over very gravelly clay loam, and on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Zeebar and Resoot—6e, nonirrigated

Range site: Zeebar and Resoot—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue

249—Zeegee-Ajax complex, 0 to 2 percent slopes

Composition

*Zeegee and similar soils—*45 percent

*Ajax and similar soils—*35 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Stream terraces

Elevation: 3,700 to 4,200 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 42 to 44 degrees F

Frost-free season: 70 to 90 days

Characteristics of Zeegee

Typical profile:

3 inches to 0—slightly decomposed roots

0 to 11 inches—grayish brown silty clay

11 to 35 inches—pale brown silty clay loam

35 to 60 inches—pale brown extremely gravelly silt loam

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately slow

Available water capacity: 8 to 10 inches

Effective rooting depth: 35 to 45 inches

Runoff: Slow

Hazard of water erosion: Slight

Depth to high water table: 6 to 12 inches in March through July

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Characteristics of Ajax

Typical profile:

1 inch to 0—slightly decomposed roots

0 to 4 inches—dark grayish brown silty clay

4 to 41 inches—dark grayish brown and olive gray silty clay loam

41 to 60 inches—olive gray silty clay loam

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Slow

Available water capacity: 7 to 12 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Shrink-swell potential: High

Depth to high water table: 6 to 12 inches in March through July

Periods of flooding: Frequency—occasional; duration—brief; months—January through June

Dissimilar Soils

- A very deep, poorly drained soil that is sodic silty clay over very gravelly clay and on stream terraces in the Salmon area (10 percent)
- A very deep, poorly drained soil that is silty clay over silty clay loam, has a thick organic mat at the surface, and is in concave areas on stream terraces (5 percent)
- A very deep, poorly drained soil that is gravelly sandy loam over very gravelly loamy sand and on stream terraces (5 percent)

Major Uses

Irrigated pastureland and hayland, and rangeland

Interpretive Groups

Land capability classification: Zeegee and Ajax—5w, nonirrigated and irrigated

Range site: Zeebar and Ajax—WET MEADOW

250—Zeelnot gravelly loam, 15 to 40 percent slopes

Composition

Zeelnot and similar soils—85 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Mountains and hills

Elevation: 7,200 to 8,500 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 39 degrees F

Frost-free season: 10 to 40 days

Characteristics of Zeelnot

Typical profile:

- 0 to 10 inches—dark brown gravelly loam
- 10 to 24 inches—yellowish brown and light yellowish brown very gravelly loam
- 24 to 32 inches—light yellowish brown extremely gravelly loam
- 32 to 60 inches—pale yellow extremely cobbly clay loam and extremely cobbly silty clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of erosion: Moderate

Dissimilar Areas

- A well drained soil that is shallow to a hardpan, dark-colored very gravelly loam, and on hills (10 percent)
- Rock outcrop on hills and mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

251—Zeelnot gravelly loam, low precipitation, 15 to 40 percent slopes

Composition

Zeelnot and similar soils—90 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Mountains and ridges

Elevation: 7,000 to 8,200 feet

Average annual precipitation: 13 to 14 inches

Average annual air temperature: 36 to 39 degrees F

Frost-free season: 20 to 40 days

Characteristics of Zeelnot

Typical profile:

- 0 to 8 inches—brown gravelly loam
- 8 to 23 inches—brown and very pale brown very gravelly loam
- 23 to 60 inches—very pale brown extremely cobbly clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium
Hazard of water erosion: Moderate

Dissimilar Soils

- Adek soils on ridges (5 percent)
- Skibo soils on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated
Range site: GRAVELLY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue

252—Zeelnot-Meegernot-Adek association, 5 to 40 percent slopes

Composition

Zeelnot and similar soils—40 percent
Meegernot and similar soils—30 percent
Adek and similar soils—15 percent
Dissimilar areas—15 percent

Zeelnot

Setting

Position on landscape: Convex areas on south- and west-facing mountain slopes
Elevation: 7,000 to 9,000 feet
Average annual precipitation: 13 to 16 inches
Average annual air temperature: 35 to 39 degrees F
Frost-free season: 10 to 40 days

Soil characteristics

Slope: 15 to 40 percent

Typical profile:

- 0 to 10 inches—dark brown gravelly loam
- 10 to 24 inches—yellowish brown and light yellowish brown very gravelly loam
- 24 to 32 inches—light yellowish brown extremely gravelly loam
- 32 to 60 inches—pale yellow extremely cobbly clay loam and extremely cobbly silty clay loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Available water capacity: 3.5 to 4.5 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Meegernot

Setting

Position on landscape: Concave areas on north- and east-facing mountain slopes
Elevation: 7,000 to 9,000 feet
Average annual precipitation: 16 to 19 inches
Average annual air temperature: 34 to 38 degrees F
Frost-free season: 10 to 30 days

Soil characteristics

Slope: 15 to 40 percent

Typical profile:

- 0 to 16 inches—very dark grayish brown and dark brown gravelly loam
- 16 to 41 inches—brown, yellowish brown, and dark yellowish brown very gravelly loam and extremely gravelly loam
- 41 to 58 inches—light yellowish brown extremely gravelly clay loam
- 58 to 66 inches—light yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate and moderately slow in the upper part and rapid in the lower part

Available water capacity: 4.5 to 6.0 inches

Effective rooting depth: 40 to 60 inches

Runoff: Medium

Hazard of water erosion: Moderate

Adek**Setting**

Position on landscape: Ridges

Elevation: 7,000 to 9,000 feet

Average annual precipitation: 12 to 16 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free season: 10 to 40 days

Soil characteristics

Slope: 5 to 25 percent

Typical profile:

- 0 to 2 inches—brown very gravelly loam
- 2 to 14 inches—light yellowish brown and pale brown very gravelly loam
- 14 to 27 inches—light yellowish brown extremely gravelly loam
- 27 to 60 inches—very pale brown very gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.5 to 5.0 inches

Effective rooting depth: 2 to 15 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- Jimbee soils in convex areas on south-facing mountain slopes (10 percent)
- Rock outcrop on mountains (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Zeelnot, Meegernot, and Adek—6e, nonirrigated

Range site: Zeelnot—LOAMY 13 TO 16 INCH PZ, mountain big sagebrush/Idaho fescue; Meegernot—LOAMY 16 TO 22 INCH PZ, mountain big sagebrush/Idaho fescue; Adek—WINDSWEPT RIDGE 11 TO 16 INCH PZ, threetip sagebrush-low sagebrush/bluegrass

253—Zer gravelly loam, 20 to 50 percent slopes

Composition

Zer and similar soils—95 percent

Dissimilar soil—5 percent

Setting

Position on landscape: Fan terraces

Elevation: 4,500 to 7,000 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 40 to 43 degrees F

Frost-free season: 70 to 90 days

Characteristics of Zer

Typical profile:

0 to 5 inches—light yellowish brown gravelly loam

5 to 14 inches—very pale brown very gravelly loam

14 to 26 inches—very pale brown extremely gravelly sandy loam

26 to 60 inches—light yellowish brown and very pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soil

- A well drained soil that is shallow to a hardpan, gravelly loam over very gravelly loam, and on fan terraces (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 7e, nonirrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

254—Zer gravelly loam, cold, 20 to 40 percent slopes

Composition

Zer and similar soils—80 percent

Dissimilar areas—20 percent

Setting

Position on landscape: Hills

Elevation: 7,000 to 8,000 feet

Average annual precipitation: 10 to 12 inches

Average annual air temperature: 40 to 43 degrees F

Frost-free season: 45 to 70 days

Characteristics of Zer

Typical profile:

- 0 to 7 inches—pale brown gravelly loam
- 7 to 14 inches—pale brown gravelly loam
- 14 to 60 inches—very pale brown very gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A very deep, well drained soil that is calcareous extremely gravelly loam and on hills (10 percent)
- A well drained soil that is moderately deep to bedrock, gravelly loam over very gravelly loam, and on hills near areas of Rock outcrop (5 percent)
- Rock outcrop on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: SHALLOW LOAM 11 TO 13 INCH PZ, low sagebrush/bluebunch wheatgrass

255—Zer gravelly loam, saline, 1 to 4 percent slopes

Composition

*Zer and similar soils—*85 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Fan terraces and stream terraces

Elevation: 5,500 to 6,000 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 40 to 43 degrees F

Frost-free season: 70 to 80 days

Characteristics of Zer

Typical profile:

- 0 to 8 inches—brown gravelly loam
- 8 to 43 inches—yellowish brown, brown, and dark yellowish brown very gravelly sandy loam and very gravelly coarse sandy loam
- 43 to 60 inches—grayish brown very gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of erosion: Slight

Salinity: Moderately saline in the upper 8 inches and slightly saline between depths of 8 and 43 inches

Sodicity: Moderately sodic between depths of 10 and 30 inches

Dissimilar Soils

- A very deep, well drained soil that is sodic gravelly loam over very gravelly loam and on fan terraces and stream terraces (10 percent)
- A very deep, well drained soil that is dark-colored very gravelly loamy sand and on fan terraces and stream terraces (5 percent)

Major Uses

Irrigated cropland and hayland, and rangeland

Interpretive Groups

Land capability classification: 4s, nonirrigated and irrigated

Range site: SALINE LOAMY 8 TO 11 INCH PZ, black greasewood/basin wildrye

256—Zer gravelly loam, warm, 2 to 15 percent slopes

Composition

Zer and similar soils—85 percent

Dissimilar soils—15 percent

Setting

Position on landscape: Fan terraces

Elevation: 5,000 to 5,700 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 41 to 43 degrees F

Frost-free season: 70 to 90 days

Characteristics of Zer

Typical profile:

0 to 6 inches—pale brown and yellowish brown gravelly loam

6 to 26 inches—light yellowish brown very gravelly loam

26 to 60 inches—very pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Snowslide soils in convex areas on fan terraces (5 percent)
- A very deep, well drained soil that is very gravelly sandy loam and in drainageways on fan terraces (10 percent)

Major Uses

Irrigated hayland and cropland, and rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated, and 4e, irrigated

Range site: FLAGSTONE 8 TO 11 INCH PZ, Wyoming big sagebrush/Salmon wildrye

257—Zer very gravelly silt loam, saline, 5 to 10 percent slopes

Composition

*Zer and similar soils—*80 percent

*Dissimilar soils—*20 percent

Setting

Position on landscape: Fan terraces

Elevation: 4,500 to 5,500 feet

Average annual precipitation: 7 to 9 inches

Average annual air temperature: 40 to 43 degrees F

Frost-free season: 70 to 90 days

Characteristics of Zer

Typical profile:

0 to 8 inches—brown and yellowish brown very gravelly silt loam

8 to 43 inches—yellowish brown, brown, and dark yellowish brown very gravelly sandy loam and very gravelly coarse sandy loam

43 to 60 inches—grayish brown very gravelly loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Salinity: Moderately saline in the upper 8 inches and slightly saline between depths of 8 and 43 inches

Sodicity: Moderately sodic between depths of 10 and 30 inches

Dissimilar Soils

- Zer soils on fan terraces (10 percent)
- A very deep, well drained soil that is gravelly loam over very gravelly clay loam and on fan terraces (10 percent)

Major Uses

Rangeland and irrigated pastureland

Interpretive Groups

Land capability classification: 6s, nonirrigated, and 4e, irrigated

Range site: SALINE LOAMY 8 TO 11 INCH PZ, black greasewood/basin wildrye

258—Zer very cobbly loam, 20 to 50 percent slopes

Composition

*Zer and similar soils—*80 percent

*Dissimilar areas—*20 percent

Setting

Position on landscape: Hills
Elevation: 5,600 to 6,000 feet
Average annual precipitation: 8 to 10 inches
Average annual air temperature: 40 to 43 degrees F
Frost-free season: 70 to 90 days

Characteristics of Zer

Typical profile:

- 0 to 3 inches—brown very cobbly loam
- 3 to 27 inches—pale brown, very pale brown, and white very gravelly loam and extremely gravelly loam
- 27 to 60 inches—multicolored extremely gravelly sand

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 20 to 40 inches

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Areas

- A very deep, well drained soil that is dark-colored gravelly loam over very gravelly loam and in concave areas on hills (10 percent)
- A well drained soil that is moderately deep to bedrock, gravelly loam over gravelly clay, and on ridgetops (5 percent)
- Rubble land on hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 6e, nonirrigated

Range site: GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

259—Zer-Snowslide complex, 1 to 4 percent slopes

Composition

*Zer and similar soils—*75 percent

*Snowslide, low precipitation, and similar soils—*20 percent

*Dissimilar soil—*5 percent

Setting

Position on landscape: Fan terraces
Elevation: 5,200 to 6,000 feet
Average annual precipitation: 8 to 10 inches
Average annual air temperature: 40 to 43 degrees F
Frost-free season: 70 to 90 days

Characteristics of Zer

Typical profile:

- 0 to 5 inches—light yellowish brown gravelly loam

5 to 14 inches—very pale brown very gravelly loam
 14 to 26 inches—very pale brown extremely gravelly sandy loam
 26 to 60 inches—light yellowish brown and very pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Characteristics of Snowslide

Typical profile:

0 to 7 inches—brown gravelly loam

7 to 60 inches—pale brown, light gray, and yellowish brown very gravelly sandy loam and extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soil

- A very deep, well drained soil that is very cobbly loam over very gravelly clay loam and on fan terraces (5 percent)

Major Uses

Irrigated cropland, pastureland, and hayland, and rangeland

Interpretive Groups

Land capability classification: Zer—6e, nonirrigated, and 4e, irrigated;
 Snowslide—

7s, nonirrigated, and 3s, irrigated

Range site: Zer—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Snowslide—WINDSWEPT 8 TO 11 INCH PZ, silver chickensage-fringed sagewort/Sandberg bluegrass-needleandthread

260—Zer-Snowslide complex, 5 to 25 percent slopes

Composition

*Zer and similar soils—*70 percent

*Snowslide and similar soils—*15 percent

*Dissimilar soils—*15 percent

Setting

Position on landscape: Fan terraces and hills

Elevation: 4,500 to 6,500 feet

Average annual precipitation: 7 to 9 inches

Average annual air temperature: 39 to 43 degrees F

Frost-free season: 60 to 90 days

Characteristics of Zer

Typical profile:

- 0 to 5 inches—light yellowish brown gravelly loam
- 5 to 14 inches—very pale brown very gravelly loam
- 14 to 26 inches—very pale brown extremely gravelly sandy loam
- 26 to 60 inches—very pale brown and light yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Characteristics of Snowslide

Typical profile:

- 0 to 7 inches—pale brown gravelly loam
- 7 to 24 inches—very pale brown very gravelly loam
- 24 to 60 inches—very pale brown very gravelly sandy loam and extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Medium

Hazard of water erosion: Moderate

Dissimilar Soils

- A very deep, well drained soil that is dark-colored very gravelly loam and in drainageways on fan terraces and hills (10 percent)
- A very deep, well drained soil that is loamy sand over gravelly loam and on fan terraces and hills (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: Zer—6e, nonirrigated; Snowslide—7e, nonirrigated

Range site: Zer—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass; Snowslide—SALINE GRAVELLY 7 TO 9 INCH PZ, shadscale saltbush/ricegrass-needleandthread

261—Zer-Whiteknob complex, 1 to 4 percent slopes

Composition

Zer and similar soils—70 percent

Whiteknob and similar soils—20 percent

Dissimilar soils—10 percent

Setting

Position on landscape: Fan terraces

Elevation: 5,500 to 6,100 feet
Average annual precipitation: 8 to 10 inches
Average annual air temperature: 40 to 43 degrees F
Frost-free season: 70 to 90 days

Characteristics of Zer

Typical profile:

0 to 5 inches—light yellowish brown gravelly loam
 5 to 14 inches—very pale brown very gravelly loam
 14 to 20 inches—very pale brown extremely gravelly sandy loam
 20 to 60 inches—very pale brown and light yellowish brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Available water capacity: 2.5 to 4.5 inches

Effective rooting depth: 60 inches or more

Runoff: Slow

Hazard of erosion: Slight

Characteristics of Whiteknob

Typical profile:

0 to 5 inches—pale brown gravelly loam
 5 to 10 inches—brown gravelly loam
 10 to 18 inches—pale brown very gravelly sandy loam
 18 to 60 inches—light gray, very pale brown, and light yellowish brown extremely gravelly loamy coarse sand

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Available water capacity: 2.5 to 3.5 inches

Effective rooting depth: 10 to 20 inches

Runoff: Slow

Hazard of water erosion: Slight

Dissimilar Soils

- Sparmo soils in concave areas on fan terraces (10 percent)

Major Uses

Irrigated cropland, hayland, and pastureland, and rangeland

Interpretive Groups

Land capability classification: Zer—6e, nonirrigated, and 4e, irrigated; Whiteknob—6s, nonirrigated, and 4s, irrigated

Range site: Zer and Whiteknob—GRAVELLY LOAM 8 TO 12 INCH PZ, Wyoming big sagebrush/bluebunch wheatgrass

262—Simeroi very gravelly silt loam, 30 to 60 percent slopes

Composition

Simeroi and similar soils—85 percent

Dissimilar areas—15 percent

Setting

Position on landscape: Hills

Elevation: 5,800 to 7,000

Average annual precipitation: 8 to 11 inches

Average annual temperature: 38 to 42 degrees F

Frost-free period: 50 to 90 days

Characteristics of Simeroi

Typical profile:

0 to 3 inches—pale brown very gravelly silt loam

3 to 10 inches—very pale brown very gravelly silt loam

10 to 60 inches—very pale brown extremely gravelly sandy loam

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Available water capacity: 3.0 to 4.5 inches

Effective rooting depth: 2 to 18 inches

Runoff: Rapid

Hazard of water erosion: Severe

Dissimilar Areas

- Soils that are similar to this Simeroi soil but are moist and on north-facing side slopes of low spur ridges (5 percent)
- Soils that are similar to this Simeroi soil but are moist and cool and have a dark-colored surface layer more than 7 inches thick (2 percent)
- Areas of Rock outcrop that range from surface-level exposures to irregular cliffs (3 percent)
- Soils that are similar to this Simeroi soil but are derived from quartzite and loess and do not have carbonates in the surface layer and the upper part of the subsoil (5 percent)

Major Use

Rangeland

Interpretive Groups

Land capability classification: 7e, nonirrigated

Range site: LIMEY GRAVELLY 8 TO 13 INCH PZ, black sagebrush/bluebunch wheatgrass

263—Water

Composition

Water—100 percent

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 forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; for agricultural waste management; and as 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.

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.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited*, *somewhat limited*, and *very limited*. The suitability ratings are expressed as *well suited*, *moderately suited*, *poorly suited*, and *unsuited* or as *good*, *fair*, and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations

appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

By Ralph Swift, district conservationist, Natural Resources Conservation Service.

General management needed for crops and pasture is given in this section. The estimated yields of the main crops and hay and pasture plants are listed for each soil, the system of land capability classification used by the Natural Resources Conservation Service is explained, and prime farmland is described.

The survey area has about 170,000 acres of cropland, including that used for crops, hay, and pasture. All of this land is irrigated. About 59,000 acres is used for pasture.

The hayland and pastureland are cropped by removing one or more cuttings of hay or by harvesting the plants for grain. Nearly every acre of cropland is used for pasture at some time during the year. This may be early in the year before growth takes place, during the growing season, or late in the year after the cultivated crop or hay has been harvested. The majority of the land is used for livestock operations.

Field crops suited to the soils and climate of the survey area include alfalfa, grass hay, and some small grain, dominantly oats and barley. Some specialty crops suited to the area include seed potatoes and oilseed crops. Production of these crops is influenced more by the markets than by the soils.

The cropland in the survey area can be placed in three broad categories—pastureland, well drained soils suited to the production of small grain or alfalfa hay as well as specialty crops, and moderately well drained to poorly drained soils suited to grass hay or use as pastureland.

The soils suited only for use as pastureland are either too wet to grow hay or are in high elevation areas, generally above 6,300 feet. Wet soils, such as those of the Fezip and Lemroi series, are in Lemhi Valley, above the town of Lemhi, and along the Salmon and Lemhi Rivers. The majority of the soils at the high elevations are in the Stanley area and above Leadore. Supplemental irrigation is needed for pasture production on these soils. Soil compaction as a result of trampling by livestock is a concern.

The majority of the soils suited to alfalfa hay production are on the higher stream terraces of the Lemhi and Salmon Rivers and on the benches and bars above these rivers. Pattee, Perreau, and Packham soils are typical of these areas. The soils are well drained and require a full season of irrigation water for crop production.

Erosion from irrigation is a problem on flood-irrigated soils that have slopes of more than 4 percent, particularly during the establishment of crops.

Semiwet soils along the first stream terraces in the survey area are suited to grass production for use as pasture or hay. These soils commonly are wet from spring runoff and flood irrigation. They are moderately well drained to somewhat poorly drained. The surface of these soils is sufficiently dry in midsummer to late in summer to allow for harvesting of grass hay. Irrigation and fertility management are needed to improve the productivity of these soils.

Use of conservation cropping systems along with proper irrigation water management and pastureland and hayland management are key to maintaining production and reducing the risk of erosion in the areas of cropland. These practices and use of a fertility management program are important to any conservation program for the ranches in the survey area.

Fields that have slopes of 4 percent or more require intensive management for erosion control and irrigation water management. During the establishment of grain or a new seeding of alfalfa, portable sprinklers are used for irrigation to reduce the risk of runoff and erosion. Once a ground cover is established, flood irrigation can be used.

Corrugations with gated pipe limit the amount of irrigation water applied and help to minimize erosion.

Most of the irrigation water in the area is diverted from the Salmon and Lemhi Rivers and their tributaries. The supply of irrigation water is limited early in spring before the snow melts and again late in summer. Sprinkler irrigation typically is used on the benches and bars in the survey area. Sprinklers reduce the amount of irrigation water required by increasing the efficiency of the water applied to the fields.

Crop rotations commonly consist of 8 to 10 years of alfalfa and 2 years of grain. Use of minimum till or no-till farming, which eliminates the need for 2 years of grain before returning the fields to forage production, has increased in recent years. Less tillage helps to maintain soil fertility and tilth.

Surface irrigation commonly is used in areas of grass hay and pasture. Flood irrigation methods used include border dike, contour ditch, and wild flooding. Wild flooding consists of applying water by use of a main center ditch and lateral ditches and releasing water onto high areas in the meadows. This type of irrigation is very inefficient in terms of irrigation water delivery, but the excess water supports many acres of induced wildlife habitat. Some of this land has been seeded to improved meadow species.

A strong fertility program is essential for high-yield production of crops in the area. Field soil tests should be completed, and fertilizer should be applied according to the needs of the crop grown. Phosphorus is beneficial for legumes, and nitrogen is beneficial for grass and small grain. Sulfur is also beneficial on some fields.

Planners of management systems for individual fields or ranches should consider the detailed information in the description of each soil under the heading "Detailed Soil Map Units." Additional information can be obtained from the local office of the Natural Resources Conservation Service or Cooperative Extension Service.

Yields per Acre

The average yields per acre that can be expected of the principal crops and pasture plants under a high level of management are shown in table 5. 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 map units in the survey area 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 also are 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; 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 table 5 are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the

Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

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 forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (USDA, 1961). Only class and subclass are used in this survey.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, 6*e*. The letter *e* shows that the main hazard is the risk of erosion unless 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* shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses 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 to pasture, rangeland, forestland, wildlife habitat, or recreation.

The capability classification of map units in this survey area is given in the section “Detailed Soil Map Units” and in table 5.

Prime Farmland

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation’s short- and

long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in some parts of the survey area has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

About 24,500 acres, or about 1 percent, of the survey area would meet the requirements for prime farmland if an adequate and dependable supply of irrigation water was available. The map units in the survey area that are considered prime farmland are listed in this section. This list does not constitute a recommendation for a particular land use. On some soils included in the list, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in table 4. The location is shown on the detailed soil maps. The soil qualities that affect use and management are described under the heading "Detailed Soil Map Units."

The map units that meet the requirements for prime farmland if irrigated are:

- 4 Arco silt loam, 0 to 2 percent slopes
- 20 Bockston loam, 0 to 4 percent slopes
- 22 Breitenbach gravelly loam, 1 to 4 percent slopes
- 135 Mooretown-Borco complex, 0 to 2 percent slopes
- 197 Snowslide gravelly loam, dry, 1 to 10 percent slopes
- 203 Soen gravelly loam, 0 to 4 percent slopes

Rangeland

By Dan Ogle, range conservationist, Natural Resources Conservation Service.

Of the 1,959,720 acres in the survey area, approximately 20 percent is privately owned land, 5 percent is endowment land (schools) under the management of the Idaho Department of Lands, and 75 percent is administered by the Bureau of Land Management.

Approximately 85 percent of the survey area is rangeland, 7 percent is irrigated hayland or pastureland, 4 percent is commercial forestland, and 3 percent is grazeable forestland. The remaining land is used as cropland and for roads, municipal uses, and other uses. Nearly all land in the survey area is used for livestock production or wildlife habitat at some time during the year.

The most common livestock enterprise is the commercial cow\calf operation. A few dairy and sheep operations are in the survey area. The ranches vary in size, but they generally consist of 600 to 800 acres of private land with grazing privileges on Federal land. Some of the rangeland in the survey area is used by operators based in other counties.

The forage produced on the rangeland is used primarily in spring and fall. Forage at an elevation of more than 6,500 feet is used in summer.

The basic soil\plant resource is best maintained or improved through management. Important range management practices include planned grazing systems (primarily rotations) and proper grazing and season of use. Facilitating practices to accomplish these goals and to attain good distribution of grazing include properly locating salt, use of watering facilities, and fencing. The suitability of range improvement practices such as brush management, range seeding, and water developments depends on specific characteristics of the soils. Information about the characteristics and suitabilities of the soils can be found in the "Detailed Soil Map Units" section.

Most ranch headquarters are located along the river and creek bottoms in the survey area. This bottomland is used primarily as feeding and foraging areas in winter, as pasture for calving in spring, and as pasture in spring and fall.

Dense stands of shrubs and deciduous trees on the bottomland provide livestock with good protection from the wind and the cold and snowy weather in winter and early in spring. Because this land is near streams (riparian zones), special management precautions should be considered. These include annual rotation of livestock to higher and drier areas to avoid overuse of forage used early in the season and to minimize soil compaction and streambank degradation.

Soils along the rivers and creeks in the survey area are moderately well drained to poorly drained. These soils support shrubs, deciduous trees, and herbaceous water-loving plants. Forage production on the valley bottoms is less influenced by yearly climatic changes than are other areas in the survey area because of the moisture in the subsoil. In the upland areas that have similar climate and topography, differences in the kind and amount of vegetation produced are closely related to the kind of soil. On stream terraces and fan terraces above the wet bottomland, the soils are fine textured or medium textured and gravelly or very gravelly and they support drought-tolerant, low-growing shrubs, grasses, and forbs. On north-facing mountain slopes above an elevation of 6,000 feet, the soils are medium textured gravelly loam that supports forest and mountain shrub plant communities. Significantly more forage is produced on the fan terraces on hills and mountains.

Table 6 shows, for each soil that supports vegetation suitable for grazing, the ecological site or forest habitat type; the total annual production of vegetation in favorable, normal, and unfavorable years; the characteristic vegetation; and the average percentage of each species. An explanation of the column headings in table 6 follows.

An *ecological site or forest habitat type* is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time throughout the soil development process; a characteristic hydrology that have developed over time, particularly infiltration and runoff; and a characteristic plant community (kind and amount of vegetation). The hydrology of the site is influenced by development of the soil and plant community. The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others, and each influences the development of the others. The plant community on an ecological site or forest habitat type is typified by an association of species that differs from that of other ecological sites or habitat types in the kind and proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available at the local office of the Natural Resources Conservation Service. Descriptions of the

forest habitat types are provided in the Forest Service publication “Forest Habitat Types of Central Idaho” (USDA, 1981a).

Total dry-weight production is the amount of vegetation that can be expected to grow annually in a well managed area that is supporting the historic climax plant community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year’s growth of leaves, twigs, and fruits 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 about average. In an unfavorable year, growing conditions are well below average, generally because of low available soil moisture. Yields are adjusted to a common percent of air-dry moisture content.

Characteristic vegetation—the grasses, forbs, and shrubs that make up most of the historic climax plant community on each soil—is listed by common name. Under *range composition*, the expected percentage of the total annual production is given for each species making up the characteristic vegetation. The composition percentages of individual species is given by dry weight. The total percent composition may not be 100 percent because species that make up less than 5 percent of the ecological site or habitat type typically are not shown in the table. The amount that can be used as forage depends on the kinds of grazing animals and on the grazing season.

Range management requires a knowledge of the kinds of soil and of the historic climax plant community. It also requires an evaluation of the present range similarity index and rangeland trend. Range similarity index is determined by comparing the present plant community with the historic climax plant community on a particular rangeland ecological site. The more closely the existing community resembles the historic community, the higher the range similarity index. Rangeland trend is defined as the direction of change in an existing plant community relative to the historic climax plant community. Further information about the range similarity index and rangeland trend is available in chapter 4 of the “National Range and Pasture Handbook” (<http://www.glti.nrcs.usda.gov/technical/publications/nrph.html>).

The objective in range management is to control grazing so that the plants growing on a site are about the same in kind and amount as the historic climax plant community for that site. Such management generally results in the optimum production of vegetation, control of undesirable brush species, conservation of water, and control of erosion. Sometimes, however, an area with a range similarity index somewhat below the potential meets grazing needs, provides wildlife habitat, and protects soil and water resources.

Woodland Productivity and Forest Habitat Types

About 20,000 acres in the survey area is woodland, some of which is used as grazeable woodland. Other uses include wildlife habitat, recreation, and woodcutting for firewood. For those soils in the survey area that are forested, the maximum average annual growth, expressed in cubic feet per acre per year, is given for one or more tree species in the “Detailed Soil Map Units” section. These growth figures are based on data taken from yield tables and are ascertained through the use of average site indexes. The site indexes are determined from the appropriate site index curves for each tree species, including that for lodgepole pine (Alexander, 1966), subalpine fir (Alexander, 1967), and Douglas fir (Brickell, 1968). The site indexes for Douglas fir were based on 100-year-old trees so that Meyer’s yield tables could be used to determine the growth figures. If growth figures are given for more than one species on a specific soil, the figures given are the potential average annual growth that could be expected in a stand having only one of the tree species.

Detailed soil map units 34, 42, 65, 79, 102, 103, 110, 111, 112, 117, and 210 are forested. These units have been correlated to Forest Service forest habitat types (USDA, 1981a). Five habitat types are recognized in the survey area—Douglas fir/pinegrass, Douglas fir/mountain snowberry, lodgepole pine/elk sedge, whitebark pine/elk sedge, and subalpine fir/grouse huckleberry (blueberry). Forest composition percentages of individual species is given in table 6 by cover rather than by dry weight. Total dry-weight production was not determined.

Recreation

The survey area provides year-round opportunities for recreation. Hunting, fishing, hiking, camping, sightseeing, boating, horseback riding, and golfing are the main recreational activities in spring, summer, and fall. In winter the most popular activities are cross-country skiing, snowmobiling, ice fishing, and sightseeing. Special areas of interest are the Salmon River, old mining sites, the Stanley area, Williams Lake, wilderness areas, and Mt. Borah. The Salmon River provides opportunities for many different types of recreation, including river running, steelhead and salmon fishing, sightseeing, boating, and wildlife watching. The river is one of the main attractions in the survey area.

The soils of the survey area are rated in table 7 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 table 7 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.

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.

Wildlife Habitat

By Frank Fink, wildlife biologist, Natural Resources Conservation Service.

This section relates the general soil map units in the survey area to the expected occurrences of certain wildlife species. Wildlife in an area typically is related to the soils and vegetation. Vegetation is closely related to the soil and its capability to produce herbaceous and woody vegetation.

The survey area supports a variety of game and nongame fish and wildlife populations. The varied topography, soils, and climate along with the many different uses produce a wide variety of habitats for the numerous wildlife species in the area.

Habitat differs in its capacity to provide essential ingredients for habitat (food, water, and cover). Some deficiencies are a result of the characteristics of the soils and others are a result of management. To improve the habitat for fish and wildlife, good management practices are needed. The management practices should be integrated with other uses of the soils.

Soils affect the kind and amount of vegetation available for use as food and cover. Soils also affect the use of water impoundments and other engineering practices. Wildlife habitat can be created or improved by planting appropriate vegetation, maintaining the existing vegetation, or promoting the natural establishment of desirable plants.

Big Game

Big game in the survey area include elk, mule deer, white-tailed deer, bighorn sheep, mountain goat, moose, and antelope. According to the Idaho Fish and Game elk management plan for the area, the elk population is about 3,625, and according to the mule deer management plan, the mule deer herds number about 15,650. These numbers include the elk and mule deer in the mountainous areas outside the survey area.

Elk herds have been increasing in the area over the last 10 years. Depredation problems have also increased with the increased number of elk.

Elk migrate between winter and summer range on routes that are not clearly defined. Elk typically migrate out of the survey area to summer range at high elevations on public land. Winter range for elk is at lower elevations along the Salmon, Lemhi, and Pahsimeroi Rivers. Major areas of winter range are along Willow Creek (general soil map units 11, 12, 13, and 14), upper Pahsimeroi River (general soil map units 11, 12, 13, and 14), and middle Lemhi River (general soil map units 6, 11, 12, and 14). Winter range is composed mainly of sagebrush and grass habitat types, but it also includes stands of mountain mahogany. South- and southwest-facing areas that have small accumulations of snow offer the best opportunity for elk to forage for food in winter.

In general, mule deer winter in the survey area and migrate out of the area in summer. Small populations of deer live year round in riparian areas along the Lemhi, Salmon, and Pahsimeroi Rivers. All major drainageways are used as winter range for mule deer. These areas typically are at low elevations at the base of mountain ranges. Vegetation is dominantly sagebrush-grass communities interspersed with mountain mahogany and antelope bitterbrush. All general soil map units in the survey area provide habitat for deer.

Mountain goat and bighorn sheep are seen only rarely in the survey area. Summer range typically is on public land in mountainous areas, but the winter range may extend into the survey area during harsh winters.

Antelope use the survey area in winter and summer. Summer range corresponds to the major drainageways in the area. Critical winter range is along Spring Creek (general soil map units 1, 2, 3, 6, 12, and 13) and Pahsimeroi River (general soil map unit 3). Winter range also is along the upper reaches of the Lemhi River (general soil map units 3, 4, 6, 9, 10, and 12). Winter range consists dominantly of sagebrush/grass communities.

Avians

Common upland game birds in the survey area include chukar, Gamble's quail, and sage grouse. Small populations of turkey, pheasant, and gray partridge are in areas with suitable habitat.

Chukar populations are associated with rocky slopes, steep terrain, and adjacent riparian areas. The lower reaches of the Lemhi, Pahsimeroi, and Salmon Rivers offer the best habitat for chukar. These upland birds typically are associated with general soil map units 1, 3, 5, and 6.

All of the major drainageways provide some habitat for sage grouse. The Lemhi and Pahsimeroi drainageways have had a rise in the population of these grouse. The Challis area population has not increased in recent years. Winter range for most sage grouse extends outside of the survey area, although the upper Pahsimeroi River does provide limited winter range. Suitable breeding and rearing areas are in the survey area. The general soil map units that support sagebrush/grass plant communities provide the majority of the habitat for sage grouse in the area.

Gamble's quail are associated with shrub plant communities that consist dominantly of willow and wild rose. The lower Lemhi River has the highest concentrations of quail in the area. The highest populations are associated with general soil map unit 4.

Turkeys have been introduced into the area. A viable population is associated with the Salmon River area, north of Challis. These birds inhabit the riparian areas that support dominantly cottonwood. They are associated with areas of general soil map units 1 and 3 along the Salmon River.

Upland game birds associated with agricultural areas are pheasant and gray partridge. Marginal habitat is along the lower Pahsimeroi, Lemhi, and Salmon Rivers. Agricultural areas typically are associated with general soil map units 1, 2, and 3. Winter habitat is critical for birds in these areas. Good woody riparian habitat adjacent to adequate food is critical to the populations of these birds.

In general, waterfowl migrate through the survey area. Small populations of Canada

geese, mallard, scaup, and wood duck nest and rear their young in the area. Some geese stay in the area year round; they are concentrated along the Lemhi and Pahsimeroi Rivers. General soil map units 1, 2, and 3, which are associated with the Salmon, Lemhi, and Pahsimeroi Rivers, offer a majority of the habitat for these waterfowl. Wetland areas in all of the general soil map units provide limited habitat for waterfowl.

Nongame bird species abound in the survey area. As many as 150 species of nongame birds may nest in the area. Migratory routes exist along all of the major drainageways. The quality of the riparian areas along the drainageways determines the extent of use by nongame birds, and these areas support the most diverse bird populations. Poor riparian management can severely limit habitat for nongame species.

Hawks, eagles, and owls are throughout the survey area. The canyons associated with the major drainageways provide many exposed cliffs and large trees suitable for nesting. Species of hawk include red-tailed, ferruginous, rough-legged, and Swainson's hawks. Prairie falcon and peregrine falcon also use the survey area. Great-horned, long-eared, and pygmy owls can be seen in all of the drainageways and on all of the general soil map units. The Salmon River and lower reaches of the Lemhi and Pahsimeroi Rivers provide winter habitat for bald eagles. Eighty-seven wintering bald eagles were counted in the Salmon and Lemhi drainageways. Golden eagles cross over the range of the bald eagles, primarily in the open sagebrush flats, searching for carrion and small game.

Furbearers

Otter, beaver, mink, raccoon, and muskrat are the most common furbearers living in and adjacent to major streams and creeks in the area. General soil map units 1 and 7 and associated riparian areas provide the most habitat for these species.

Fisheries

The fisheries in the survey area consist mainly of stream and creek habitat. Limited reservoir habitat exists in the area. The permanent flow of the Salmon, Pahsimeroi, and Lemhi Rivers and their tributaries provide for fisheries. Fish species associated with these areas include rainbow, brook, bull, westslope cutthroat, and steelhead trout, and Chinook salmon.

The quality of the stream and creek fisheries is closely tied to the quality of the surrounding riparian areas. Poor management of riparian areas has led to poor water quality and poor habitat conditions in some of the drainageways. Heavy use of water in the creeks and streams for irrigation has been a major problem during many years.

Threatened and Endangered Species

The threatened or endangered species known to use the survey area are bald eagle, peregrine falcon, Chinook salmon, sockeye salmon, and wolves.

Bald eagles winter along the Salmon River and the lower reaches of the Lemhi and Pahsimeroi Rivers, preying on the abundant fish. The riparian areas associated with general soil map units 1 and 7 correlate with the major wintering habitat for bald eagles.

Peregrine falcon are not known to nest in the area, but they have been sighted in the area. The canyon areas associated with the Salmon River have the potential to provide habitat for falcon in the future.

Chinook salmon use all of the major drainageways in the area. Spring and summer Chinook salmon migrate to the Salmon, Pahsimeroi, and Lemhi Rivers to spawn. Major tributary streams to these rivers also provide valuable spawning areas. Problems associated with salmon habitat include poor water quality, use of water in streams for irrigation, and limited flow during critical times of the year.

Sockeye salmon use the main part of the Salmon River to migrate through the survey area to spawn in waters around the Stanley area. Although these fish do not spawn in the survey area, adequate quality water in the survey area is important during migration.

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 building site development, sanitary facilities, 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.

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. Table 8 shows the degree and kind of soil limitations that affect dwellings with basements, local roads and streets, and shallow excavations.

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 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.

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.

Sanitary Facilities

Table 9 shows the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, 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.

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.

Construction Materials

Table 10 gives information about the soils as potential sources of gravel, sand, and topsoil. 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 table 10, 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 numbers 0.00 to 0.07 indicate that the layer is a poor source. The numbers 0.75 to 1.00 indicate that the layer is a good source. The numbers 0.08 to 0.74 indicate the degree to which the layer is a likely source. The class rating is based on the highest number.

The soils are rated *good*, *fair*, or *poor* as a potential source of topsoil. The features that limit the soils as a source of topsoil are specified in the table. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as a source of topsoil. The lower the number, the greater the limitation. The class rating is based on the lowest number.

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 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.

Water Management

Table 11 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 and embankments, dikes, and levees. 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.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are ascertained 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 particle-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 are shown in tables. They include engineering index properties, physical and chemical properties, and pertinent soil and water features.

Engineering Index Properties

Table 12 gives the engineering classifications and the range of index properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

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 15 percent or more, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005; PCA, 1973) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2000; PCA, 1973).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-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, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil 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 particle-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.

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 particle-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 generally omitted in the table.

Physical Properties

Table 13 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the 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.

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. Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter 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.

Clay content is estimated for each soil layer and is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The amount and kind of clay affect the fertility and physical condition of the soil and 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 earthmoving 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 $1/3$ - or $1/10$ -bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each 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. Depending on soil texture, a bulk density of more than 1.4 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 (K_{sat}) refers to the ability of a soil to transmit water or air. The term

“permeability,” as used in soil surveys, indicates saturated hydraulic conductivity (K_{sat}). The estimates in the table indicate the rate of water movement, in inches per hour, 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 soil layer. The capacity varies, depending on soil properties that affect retention of water. 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 table 13, 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 by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in table 13 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 several 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 are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible.

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer,

the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Properties

Table 14 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the 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.

Cation-exchange capacity is the total amount of extractable bases 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. The ability to retain cations reduces the hazard of ground-water pollution.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil 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 fraction of the soil less than 2 millimeters in size. 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 expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water. Soils that have a high content of gypsum 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 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 soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Sodium adsorption ratio (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values 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.

Water Features

Table 15 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly

wet. These consist mainly of 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 clays that have a high shrink-swell potential, soils that have a 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. Table 15 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. Table 15 indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information 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 levels 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.

Soil Features

Table 16 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

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, duripan, an abrupt textural change, and strongly contrasting textural stratification. 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 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 to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes 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 or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete 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 also is expressed as *low*, *moderate*, or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1998 and 1999). 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. Table 17 shows the classification 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 Cryoll (*Cry*, meaning cold, 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; type of saturation; 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 Haplocryolls (*Hapl*, meaning minimal horizonation, plus *cryoll*, the suborder of the Mollisols that has a cold soil temperature regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup 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 taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. An example is Pachic Haplocryolls.

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, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is loamy-skeletal, mixed, superactive, mesic Pachic Haplocryolls.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

Taxonomic Units and Their Morphology

In this section, each taxonomic unit recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each unit. A pedon, a small three-dimensional area of soil that is typical of the taxonomic unit in the survey area, is described. The detailed description of each soil horizon

follows standards in the “Soil Survey Manual” (Soil Survey Division Staff, 1993). Many of the technical terms used in the descriptions are defined in “Soil Taxonomy” (Soil Survey Staff, 1999) and in “Keys to Soil Taxonomy” (Soil Survey Staff, 1998). Unless otherwise indicated, colors in the descriptions are for dry soil. Following the pedon description is the range of important characteristics of the soils in the unit.

Adek Series

Taxonomic classification: Loamy-skeletal, carbonatic Xeric Eutrocryepts

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains and ridges

Parent material: Kind—colluvium; source—limestone

Slope range: 5 to 25 percent

Elevation: 7,000 to 9,000 feet

Average annual precipitation: 12 to 16 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free period: 10 to 40 days

Typical Pedon Location

Map unit in which located: Zeelnot-Meegernot-Adek association, 5 to 40 percent slopes

Location in survey area: Custer County, Idaho; about 1.5 miles northwest of Willow Creek Summit; about 1,580 feet north and 950 feet east of the southwest corner of sec. 28, T. 11 N., R. 21 E.

Typical Pedon

A—0 to 2 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine granular structure; soft, very friable, slightly sticky and nonplastic; many very fine and fine roots; many very fine and fine irregular pores; 40 percent gravel; strongly effervescent; slightly alkaline (pH 7.6); clear smooth boundary.

Bkq1—2 to 6 inches; light yellowish brown (10YR 6/4) very gravelly loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and common fine roots; common very fine and fine irregular pores and few very fine tubular pores; 50 percent gravel; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; violently effervescent (39 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); gradual wavy boundary.

Bkq2—6 to 14 inches; pale brown (10YR 6/3) very gravelly loam, yellowish brown (10YR 5/4) moist; moderate fine angular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine tubular pores; 45 percent gravel and 2 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on sides of rock fragments; violently effervescent (40 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); gradual wavy boundary.

2Bkq3—14 to 27 inches; light yellowish brown (10YR 6/4) extremely gravelly loam, yellowish brown (10YR 5/4) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and few fine tubular pores; 55 percent gravel and 10 percent cobbles; lime and silica coatings 1 to 4 millimeters thick on underside and sides of rock fragments, silica dominantly on underside; pockets of extremely gravelly

material (75 percent gravel and 10 percent cobbles) with lime and silica pendants 1 to 3 millimeters thick on underside, sides, and some tops of rock fragments; violently effervescent (50 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); gradual wavy boundary.

2Bkq4—27 to 60 inches; very pale brown (10YR 7/3) very gravelly loam, brown (10YR 5/3) moist; moderate fine and medium angular blocky structure; slightly hard, friable, sticky and plastic; common very fine tubular pores; 45 percent gravel, 10 percent cobbles, and 1 percent stones; visible soft secondary lime filaments make up 10 percent of horizon; pockets of extremely gravelly material (85 percent gravel and 10 percent cobbles); fine gravel is cemented to larger fragments with lime and silica pendants 2 to 5 millimeters thick; strongly effervescent (48 percent calcium carbonate equivalent); strongly alkaline (pH 8.6).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F

Average summer soil temperature—46 to 50 degrees F

Depth to calcic horizon—2 to 5 inches

Particle-size control section:

Clay content (average)—12 to 20 percent

Carbonate clay content—4 to 8 percent

Rock fragment content (average)—50 to 70 percent

Calcium carbonate equivalent—40 to 60 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Bkq horizon:

Value—5 or 6 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Rock fragment content—40 to 55 percent

Reaction—slightly alkaline to strongly alkaline

2Bkq horizon:

Value—6 to 8 dry, 4 to 6 moist

Chroma—3 or 4 dry or moist

Texture—extremely gravelly loam, very gravelly loam, or extremely cobbly loam

Rock fragment content—55 to 75 percent

Reaction—moderately alkaline or strongly alkaline

Ajax Series

Taxonomic classification: Fine, smectitic, calcareous, frigid Cumulic Vertic Endoaquolls

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Slow

Position on landscape: Flood plains and stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 3,700 to 5,200 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 42 to 44 degrees F

Frost-free period: 70 to 90 days

Typical Pedon Location

Map unit in which located: Zeegee-Ajax complex, 0 to 2 percent slopes

Location in survey area: Lemhi County, Idaho; about 9 miles north of Salmon; about 560 feet south and 1,250 feet east of the northwest corner of sec. 32, T. 23 N., R. 22 E.

Typical Pedon

Oi—1 inch to 0; slightly decomposed roots.

A—0 to 4 inches; dark grayish brown (2.5Y 4/2) silty clay, very dark grayish brown (2.5Y 3/2) moist; strong medium subangular blocky structure; very hard, very firm, very sticky and very plastic; many very fine, fine, and medium roots; many fine irregular pores; slightly effervescent (less than 5 percent calcium carbonate equivalent); strongly alkaline (pH 8.6); clear smooth boundary.

Bg1—4 to 10 inches; dark grayish brown (2.5Y 4/2) silty clay loam, very dark grayish brown (2.5Y 3/2) moist; many medium prominent masses of iron accumulation, dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure parting to moderate medium platy; very hard, very firm, very sticky and very plastic; common medium roots; many fine irregular pores; slightly effervescent (less than 5 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); clear smooth boundary.

Bg2—10 to 22 inches; dark grayish brown (2.5Y 4/2) silty clay loam, very dark grayish brown (2.5Y 3/2) moist; many medium prominent masses of iron accumulation and depletion, dark yellowish brown (10YR 4/4) and dark gray (10YR 4/1) moist; weak coarse angular blocky structure; very hard, very firm, very sticky and very plastic; slightly effervescent (less than 5 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear smooth boundary.

Bg3—22 to 41 inches; olive gray (5Y 5/2) silty clay loam, black (5Y 2.5/2) moist; many medium prominent masses of iron accumulation and depletion, dark yellowish brown (10YR 4/4) and gray (10YR 5/1) moist; weak coarse subangular blocky structure; very hard, very firm, very sticky and very plastic; slightly effervescent (less than 5 percent calcium carbonate equivalent); slightly alkaline (pH 7.4); clear smooth boundary.

Cg—41 to 60 inches; olive gray (5Y 5/2) silty clay loam, dark olive gray (5Y 3/2) moist; massive; very hard, very firm, very sticky and very plastic; slightly alkaline (pH 7.6).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 42 degrees F

Depth to high water table—6 to 12 inches in March through July

Time of year flooding occurs—January through June

Thickness of mollic epipedon—24 to 60 inches

Particle-size control section:

Clay content—36 to 52 percent

Calcium carbonate equivalent—1 to 5 percent

A horizon:

Hue—2.5Y or 10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—0 to 2 dry or moist

Reaction—moderately alkaline or strongly alkaline

Bg horizon:

Hue—5Y, 2.5Y, or 10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist
 Reaction—slightly alkaline or moderately alkaline
 Texture—silty clay loam, silty clay, or clay

Cg horizon:

Hue—5Y, 2.5Y, or 10YR
 Value—5 to 7 dry, 3 to 6 moist
 Chroma—1 to 4 dry or moist
 Reaction—slightly alkaline or moderately alkaline
 Texture—silty clay loam or silt loam

Alpinepeak Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Oxyaquic Eutrocryepts

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Position on landscape: Outwash fans and stream terraces

Parent material: Kind—alluvium; source—granite

Slope range: 1 to 4 percent

Elevation: 6,200 to 6,600 feet

Average annual precipitation: 12 to 16 inches

Average annual air temperature: 34 to 38 degrees F

Frost-free period: 5 to 30 days

Typical Pedon Location

Map unit in which located: Alpinepeak very gravelly sandy loam, 1 to 4 percent slopes

Location in survey area: Custer County, Idaho; about 1.5 miles northeast of the junction of State Highway 21 and Stanley Lake Road; about 1,200 feet south and 1,600 feet west of the northeast corner of sec. 24, T. 11 N., R. 12 E.

Typical Pedon

- A—0 to 3 inches; brown (10YR 5/3) very gravelly sandy loam, dark brown (10YR 3/3) moist; weak fine and medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and common fine roots; common very fine and fine irregular pores; 40 percent fine gravel; slightly acid (pH 6.2); clear smooth boundary.
- AB—3 to 7 inches; yellowish brown (10YR 5/4) very gravelly sandy loam, dark yellowish brown (10YR 3/4) moist; weak medium subangular blocky structure; soft, friable, nonsticky and nonplastic; common very fine and fine roots; common very fine and fine irregular pores; 50 percent gravel; moderately acid (pH 6.0); clear wavy boundary.
- Bw1—7 to 14 inches; yellowish brown (10YR 5/4) very gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; soft, friable, nonsticky and nonplastic; common very fine roots; common very fine and fine tubular and irregular pores; 50 percent gravel; moderately acid (pH 6.0); clear wavy boundary.
- Bw2—14 to 25 inches; yellowish brown (10YR 5/4) extremely gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; weak fine and medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; few very fine roots; common very fine and fine and few medium tubular and irregular pores; 60 percent gravel; slightly acid (pH 6.2); clear wavy boundary.
- Bw3—25 to 32 inches; yellowish brown (10YR 5/4) extremely gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; weak fine and medium subangular blocky

structure; soft, very friable, nonsticky and nonplastic; few very fine roots; common very fine and fine tubular and irregular pores; 60 percent gravel; slightly acid (pH 6.2); clear wavy boundary.

2C—32 to 60 inches; light yellowish brown (10YR 6/4) extremely gravelly coarse sand, light yellowish brown (10YR 6/4) moist; single grain; loose; common medium and coarse irregular pores; 65 percent gravel and 20 percent cobbles; slightly acid (pH 6.2).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 39 degrees F

Average summer soil temperature—44 to 49 degrees F

Depth to high water table—30 to 42 inches in June through September

Depth to sand and gravel (2C horizon)—20 to 40 inches

Particle-size control section:

Clay content—6 to 15 percent

Rock fragment content—40 to 75 percent

A horizon:

Chroma—3 or 4 dry or moist

Reaction—slightly acid or moderately acid

Bw horizon:

Hue—2.5Y or 10YR

Value—5 or 6 dry, 3 to 5 moist

Chroma—3 or 4 dry or moist

Texture—very gravelly sandy loam or extremely gravelly sandy loam

Rock fragment content—45 to 85 percent

Reaction—slightly acid or moderately acid

2C horizon:

Rock fragment content—60 to 90 percent

Aquents

Taxonomic classification: Aquents

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Rapid

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 8 to 14 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free period: 40 to 70 days

Representative Pedon Location

Map unit in which located: Aquents-Riverwash complex, nearly level

Location in survey area: About 1,805 feet west and 1,800 feet south of the northeast corner of sec. 14, T. 14 N., R. 19 E.

Representative Pedon

A—0 to 2 inches; light brownish gray (10YR 6/2) very cobbly fine sandy loam, dark grayish brown (10YR 4/2) moist; single grain; loose; many very fine and fine and

- common medium roots; many very fine and fine irregular pores; 10 percent gravel and 40 percent cobbles; neutral (pH 7.0); clear smooth boundary.
- AC—2 to 8 inches; light yellowish brown (10YR 6/4) extremely cobbly loamy fine sand, dark brown (10YR 4/3) moist; single grain; loose; many very fine and fine and common medium roots; many very fine and fine irregular pores; 30 percent gravel and 50 percent cobbles; neutral (pH 6.8); clear wavy boundary.
- C1—8 to 15 inches; light brownish gray (10YR 6/2) extremely gravelly loamy sand, dark grayish brown (10YR 4/2) moist; single grain; loose; common very fine and fine and few medium roots; many very fine and fine irregular pores; 50 percent gravel and 30 percent cobbles; neutral (pH 6.8); gradual wavy boundary.
- C2—15 to 21 inches; light brownish gray (10YR 6/2) extremely gravelly loamy coarse sand, dark grayish brown (10YR 4/2) moist; single grain; loose; common very fine and fine roots; common medium and coarse irregular pores; 35 percent gravel, 40 percent cobbles, and 5 percent stones; neutral (pH 7.0); clear wavy boundary.
- C3—21 to 60 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose; 40 percent gravel, 30 percent cobbles, and 5 percent stones; neutral (pH 7.2).

Range in Characteristics

Profile:

Depth to bedrock—more than 60 inches

Depth to high water table—6 to 12 inches in January through December

Time of year flooding occurs—April through July

Reaction—slightly acid or neutral

Particle-size control section:

Clay content—2 to 15 percent

A horizon:

Value—5 or 6 dry, 2 to 4 moist

Chroma—2 or 3 dry or moist

C horizon:

Value—5 or 6 dry, 2 to 4 moist

Chroma—2 or 3 dry or moist

Texture—stratified silt loam to extremely cobbly coarse sand

Arbus Series

Taxonomic classification: Sandy-skeletal, carbonatic Xeric Calcicryids

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and rapid in the lower part

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—limestone

Slope range: 1 to 6 percent

Elevation: 6,400 to 7,100 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Fandow-Arbus complex, 2 to 6 percent slopes

Location in survey area: Lemhi County, Idaho; about 1,500 feet west and 500 feet north of the southeast corner of sec. 33, T. 12 N., R. 28 E.

Typical Pedon

A—0 to 4 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly plastic and nonplastic; many very fine and fine and few medium roots; common very fine and fine irregular pores and few fine tubular pores; 15 percent gravel; strongly effervescent; moderately alkaline (pH 8.2); clear smooth boundary.

Bk—4 to 12 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine irregular pores and few fine tubular pores; 35 percent gravel; lime coatings less than 1 millimeter thick on underside of rock fragments; violently effervescent (65 percent calcium carbonate equivalent); moderately alkaline (pH 8.1); abrupt wavy boundary.

Bkq1—12 to 16 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 5/3) moist; weak fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine tubular and irregular pores; 45 percent gravel and 1 percent cobbles; lime and silica coatings and pendants less than 2 millimeters thick on underside of rock fragments; violently effervescent (more than 70 percent calcium carbonate equivalent); strongly alkaline (pH 9.0); clear wavy boundary.

Bkq2—16 to 20 inches; very pale brown (10YR 7/3) extremely gravelly loam, brown (10YR 5/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; few fine roots, root mat at upper boundary of horizon; few very fine and fine tubular pores; 60 percent gravel and 5 percent cobbles; lime and silica coatings and pendants 1 to 3 millimeters thick on underside of rock fragments; violently effervescent (60 percent calcium carbonate equivalent); very strongly alkaline (pH 9.3); clear wavy boundary.

2Bkq3—20 to 25 inches; grayish brown (10YR 5/2) extremely gravelly loamy sand, very dark grayish brown (10YR 3/2) moist; single grain; loose, nonsticky and nonplastic; few very fine roots; many very fine and fine and common medium and coarse irregular pores; 80 percent gravel; silica and lime pendants 2 to 5 millimeters thick on underside and some sides of rock fragments; violently effervescent (60 percent calcium carbonate equivalent); very strongly alkaline (pH 9.4); clear wavy boundary.

2Bkq4—25 to 60 inches; grayish brown (10YR 5/2) and dark gray (10YR 4/1) extremely gravelly loamy coarse sand, black (10YR 2/1) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine dead roots; many very fine and fine and common medium irregular pores; 80 percent gravel; lime and silica coatings less than 2 millimeters thick on underside of rock fragments; violently effervescent (65 percent calcium carbonate equivalent); strongly alkaline (pH 8.8).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F

Average summer soil temperature—55 to 59 degrees F

Depth to calcic horizon—3 to 6 inches

Reaction—moderately alkaline to very strongly alkaline

Depth to sand and gravel (2Bkq horizon)—10 to 20 inches

Particle-size control section:

Rock fragment content—50 to 80 percent

A horizon:

Value—5 or 6 dry

Bk and Bkq horizons:

Value—6 or 7 dry, 4 to 6 moist

Chroma—2 or 3 dry, 3 or 4 moist

Texture—very gravelly loam, extremely gravelly loam, very gravelly sandy loam, or extremely gravelly sandy loam

Clay content—12 to 20 percent

Calcium carbonate equivalent—40 to 80 percent

Rock fragment content—45 to 70 percent

2Bkq horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Texture—extremely gravelly loamy sand or extremely gravelly loamy coarse sand

Rock fragment content—65 to 85 percent

Sodium adsorption ratio—5 to 30

Arco Series*Taxonomic classification:* Fine-silty, mixed, superactive, frigid Aquic Calcixerolls*Depth class:* Very deep*Drainage class:* Somewhat poorly drained*Permeability:* Moderately slow*Position on landscape:* Stream terraces*Parent material:* Kind—alluvium; source—mixed*Slope range:* 0 to 2 percent*Elevation:* 4,700 to 5,900 feet*Average annual precipitation:* 8 to 12 inches*Average annual air temperature:* 41 to 43 degrees F*Frost-free period:* 70 to 90 days**Typical Pedon Location***Map unit in which located:* Arco silt loam, 0 to 2 percent slopes*Location in survey area:* Lemhi County, Idaho; about 2 miles southwest of May; about 10 feet north and 1,550 feet east of the southwest corner of sec. 36, T. 15 N., R. 21 E.**Typical Pedon**

A—0 to 13 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; weak thick platy structure parting to moderate fine granular; soft, friable, nonsticky and nonplastic; common very fine and few fine roots; common very fine and few fine tubular pores; strongly effervescent; moderately alkaline (pH 8.2); clear smooth boundary.

Bw—13 to 20 inches; light brownish gray (10YR 6/2) silt loam, very dark grayish brown (10YR 3/2) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and nonplastic; common very fine and few fine roots; many very fine tubular pores; strongly effervescent; moderately alkaline (pH 8.4); clear smooth boundary.

Bk1—20 to 24 inches; light brownish gray (10YR 6/2) silt loam, dark gray (10YR 4/1) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and nonplastic; common very fine and few fine roots; common very fine and fine tubular pores; violently effervescent; moderately alkaline (pH 8.4); clear smooth boundary.

Bk2—24 to 30 inches; light gray (10YR 7/1) silt loam, dark grayish brown (10YR 4/2)

moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine and fine tubular pores; violently effervescent; moderately alkaline (pH 8.4); clear smooth boundary.

Bk3—30 to 38 inches; light gray (10YR 7/2) silt loam, grayish brown (10YR 5/2) moist; few fine faint masses of iron accumulation, light yellowish brown (10YR 6/4) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and few medium tubular pores; violently effervescent; moderately alkaline (pH 8.3); gradual smooth boundary.

Bk4—38 to 45 inches; light gray (10YR 7/1) silt loam, grayish brown (10YR 5/2) moist; few fine faint masses of iron accumulation, light yellowish brown (10YR 6/4) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine tubular pores; violently effervescent; moderately alkaline (pH 8.2); clear smooth boundary.

Bk5—45 to 54 inches; light brownish gray (10YR 6/2) silt loam, grayish brown (10YR 5/2) moist; few fine faint masses of iron accumulation, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, slightly sticky and nonplastic; few very fine roots; few fine tubular pores; strongly effervescent; moderately alkaline (pH 8.0); abrupt smooth boundary.

Bkg—54 to 60 inches; light gray (2.5Y 7/2) gravelly loam, light brownish gray (2.5Y 6/2) moist; few fine faint masses of iron accumulation, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine roots; few very fine tubular pores; 25 percent gravel; strongly effervescent; slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—43 to 45 degrees F

Thickness of mollic epipedon—11 to 20 inches

Depth to calcic horizon—11 to 20 inches

Depth to high water table—24 to 36 inches in April through June

Time of year flooding occurs—April through June

Particle-size control section:

Clay content—22 to 32 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Reaction—slightly alkaline or moderately alkaline

Bw horizon:

Hue—10YR or 2.5Y

Value—4 to 6 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Texture—silt loam or silty clay loam

Bk horizon:

Hue—10YR or 2.5Y

Value—5 to 7 dry, 3 to 5 moist

Chroma—1 or 2 dry or moist

Texture—silt loam or silty clay loam

Bkg horizon:

Hue—10YR, 2.5Y, or 5Y

Value—6 or 7 dry, 5 or 6 moist
 Chroma—1 or 2 dry or moist
 Rock fragment content—0 to 25 percent
 Texture—silt loam, silty clay loam, or gravelly loam

Bartonflat Series

Taxonomic classification: Sandy-skeletal, mixed, frigid Calcic Haploxerolls

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate or moderately rapid in the upper part and very rapid in the lower part

Position on landscape: Stream terraces and fan terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 6 percent

Elevation: 5,000 to 6,600 feet

Average annual precipitation: 7 to 12 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free period: 50 to 90 days

Typical Pedon Location

Map unit in which located: Bartonflat very gravelly sandy loam, 0 to 6 percent slopes

Location in survey area: Custer County, Idaho; at the borrow pit approximately 1 mile southeast of Chilly Buttes; about 2,200 feet north and 1,900 feet east of the southwest corner of sec. 32, T. 9 N., R. 22 E.; lat. 44°03'59" N., long. 113°52'46" W.

Typical Pedon

- A—0 to 5 inches; brown (10YR 5/3) very gravelly sandy loam, dark brown (10YR 3/3) moist; moderate medium subangular blocky structure; soft, friable, slightly sticky and nonplastic; many very fine and fine and few medium and coarse roots; common very fine and fine tubular and irregular pores; 50 percent gravel; slightly alkaline (pH 7.8); clear smooth boundary.
- AB—5 to 9 inches; brown (10YR 5/3) extremely gravelly sandy loam, dark brown (10YR 3/3) moist; weak medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine and fine and few medium and coarse roots; common fine and medium irregular pores; 65 percent gravel; slightly alkaline (pH 7.6); clear smooth boundary.
- Bk—9 to 18 inches; multicolored extremely gravelly loamy sand; single grain; loose, nonsticky and nonplastic; few very fine, fine, and medium roots; common fine and medium irregular pores; 70 percent gravel and 5 percent cobbles; lime coatings 1 to 3 millimeters thick on underside and some sides of rock fragments; slightly effervescent; slightly alkaline (pH 7.5); gradual wavy boundary.
- Bkq1—18 to 45 inches; multicolored extremely gravelly loamy sand; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; common fine and medium irregular pores; 65 percent gravel and 20 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside and sides of rock fragments; slightly effervescent; moderately alkaline (pH 7.9); gradual wavy boundary.
- Bkq2—45 to 60 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose, nonsticky and nonplastic; few very fine roots; common fine and medium irregular pores; 60 percent gravel and 20 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside and sides of rock fragments; slightly effervescent; slightly alkaline (pH 7.7).

Range in Characteristics

Profile:

Thickness of mollic epipedon—7 to 11 inches
 Average annual soil temperature—39 to 43 degrees F
 Depth to secondary carbonates—7 to 11 inches
 Depth to sand and gravel (Bk horizon)—7 to 11 inches

Particle-size control section:

Clay content—1 to 5 percent
 Rock fragment content (average)—55 to 90 percent

A horizon:

Texture—gravelly loam or very gravelly sandy loam

Bk horizon:

Hue—2.5Y or 10YR
 Value—3 or 4 moist
 Chroma—2 or 3 moist
 Rock fragment content—45 to 75 percent
 Reaction—slightly alkaline or moderately alkaline

Bkq horizon:

Texture—extremely gravelly loamy sand, extremely gravelly loamy coarse sand, or extremely cobbly sand
 Rock fragment content—65 to 85 percent
 Reaction—slightly alkaline or moderately alkaline

Bartonhill Series

Taxonomic classification: Loamy-skeletal, carbonatic, frigid Pachic Calcixerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Position on landscape: Outwash fans

Parent material: Kind—alluvium; source—mixed

Slope range: 5 to 15 percent

Elevation: 6,000 to 7,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free period: 50 to 60 days

Typical Pedon Location

Map unit in which located: Bartonhill-Whitecloud complex, 5 to 15 percent slopes

Location in survey area: Custer County, Idaho; about 3 miles north of Mackay; about 800 feet south and 1,320 feet east of the northwest corner of sec. 16, T. 7 N., R. 23 E.; lat. 43°56'36" N., long. 113°44'22" W.

Typical Pedon

A1—0 to 3 inches; grayish brown (10YR 5/2) very gravelly fine sandy loam, very dark gray (10YR 3/1) moist; weak thin platy structure; slightly hard, friable, nonsticky and nonplastic; many very fine, fine, and medium and few coarse roots; common very fine irregular pores; 30 percent gravel and 10 percent cobbles; lime coatings 1 to 3 millimeters thick on underside of rock fragments; strongly effervescent; moderately alkaline (pH 8.4); clear smooth boundary.

- A2—3 to 12 inches; gray (10YR 5/1) very gravelly fine sandy loam, very dark gray (10YR 3/1) moist; weak fine subangular blocky structure; soft, friable, nonsticky and nonplastic; common very fine, fine, medium, and coarse roots; common very fine irregular pores; 50 percent gravel and 5 percent cobbles; lime coatings 1 to 3 millimeters thick on underside of rock fragments; strongly effervescent (55 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); abrupt smooth boundary.
- Bw—12 to 22 inches; dark grayish brown (10YR 4/2) fine sandy loam, very dark gray (10YR 3/1) moist; weak fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; common very fine, fine, medium, and coarse roots; common very fine irregular pores; 10 percent gravel; lime coatings 1 to 3 millimeters thick on underside of rock fragments; strongly effervescent (25 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.
- 2Bkq1—22 to 46 inches; very dark gray (10YR 3/1) extremely gravelly coarse sandy loam, black (10YR 2/1) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine and few medium and coarse roots; common very fine irregular pores; 55 percent gravel and 20 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; violently effervescent (60 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.
- 2Bkq2—46 to 56 inches; very dark grayish brown (10YR 3/2) loamy fine sand, black (10YR 2/1) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine and common medium and coarse roots; common very fine irregular pores; 10 percent gravel; lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.4); clear wavy boundary.
- 2Bkq3—56 to 60 inches; very dark gray (10YR 3/1) extremely gravelly sandy loam, black (10YR 2/1) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine roots; common very fine irregular pores; 50 percent gravel and 10 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.4).

Range in Characteristics

Profile:

Depth to sand and gravel (2Bkq horizon)—20 to 26 inches
 Average annual soil temperature—39 to 41 degrees F
 Thickness of mollic epipedon—20 to 26 inches
 Depth to calcic horizon—20 to 26 inches

Particle-size control section:

Clay content—8 to 15 percent in the upper part and 3 to 8 percent in the lower part
 Rock fragment content (average)—35 to 60 percent
 Calcium carbonate equivalent (average)—40 to 55 percent

A horizon:

Chroma—2 or 3 dry, 1 to 3 moist
 Rock fragment content—35 to 55 percent

2Bkq horizon:

Value—3 to 5 dry, 2 to 4 moist
 Chroma—1 to 3 dry or moist
 Texture—stratified extremely gravelly sandy loam to loamy fine sand
 Rock fragment content—0 to 90 percent

Bayhorse Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Lithic Xeric Haplargids

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Ridges

Parent material: Kind—residuum; source—extrusive igneous rock

Slope range: 20 to 50 percent

Elevation: 5,200 to 6,500 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Bayhorse association, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 1 mile northwest of Challis; about 2,000 feet north and 2,500 feet west of the southeast corner of sec. 18, T. 14 N., R. 19 E.; lat. 44°32'30" N., long. 114°15'46" W.

Typical Pedon

A—0 to 3 inches; pale brown (10YR 6/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; 30 percent gravel; slightly alkaline (pH 7.4); clear smooth boundary.

BA—3 to 8 inches; yellowish brown (10YR 5/4) gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; 30 percent gravel; slightly alkaline (pH 7.5); clear smooth boundary.

Bt1—8 to 12 inches; yellowish brown (10YR 5/4) very gravelly loam, dark yellowish brown (10YR 3/4) moist; weak medium subangular blocky structure; slightly hard, firm, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine tubular pores; few faint clay films on faces of peds and in pores; 35 percent gravel; slightly alkaline (pH 7.4); clear smooth boundary.

Bt2—12 to 18 inches; yellowish brown (10YR 5/4) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; slightly hard, firm, moderately sticky and moderately plastic; common very fine and fine and few medium roots; many very fine and fine tubular pores; common faint clay films on faces of peds and in pores; 40 percent gravel; lime coatings less than 1 millimeter thick on underside of some rock fragments; slightly alkaline (pH 7.6); clear smooth boundary.

R—18 to 28 inches; indurated andesite.

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Depth to bedrock—12 to 20 inches

Particle-size control section:

Clay content (average)—20 to 27 percent

Rock fragment content (average)—35 to 55 percent

A horizon:

Value—5 or 6 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Reaction—neutral or slightly alkaline

BA horizon:

Value—3 or 4 moist

Chroma—3 or 4 dry or moist

Reaction—neutral or slightly alkaline

Bt horizon:

Value—5 or 6 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Texture—very gravelly loam or very gravelly clay loam

Lime coatings on underside of rock fragments absent in some pedons.

Bigflat Series*Taxonomic classification:* Fine, smectitic, frigid Aridic Palexerolls*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Slow*Position on landscape:* Fan terraces*Parent material:* Kind—alluvium; source—basalt and volcanic ash*Slope range:* 4 to 8 percent*Elevation:* 6,000 to 6,300 feet*Average annual precipitation:* 11 to 13 inches*Average annual air temperature:* 40 to 45 degrees F*Frost-free period:* 65 to 80 days***Typical Pedon Location****Map unit in which located:* Bigflat-Dacont complex, 4 to 8 percent slopes*Location in survey area:* Lemhi County, Idaho; about 7 miles west of Lemhi; about 700 feet west and 1,400 feet south of the northeast corner of sec. 5, T. 17 N., R. 23 E.***Typical Pedon***

A1—0 to 5 inches; brown (10YR 5/3) loam, very dark brown (10YR 2/2) moist; strong thick platy structure; soft, very friable, sticky and slightly plastic; many very fine and fine and few medium roots; many very fine irregular and tubular pores; 5 percent gravel; neutral (pH 6.7); clear smooth boundary.

A2—5 to 10 inches; grayish brown (10YR 5/2) loam, very dark grayish brown (10YR 3/2) moist; moderate medium angular blocky structure; soft, friable, sticky and plastic; common very fine and fine roots; many very fine and fine irregular and tubular pores; 5 percent gravel; slightly alkaline (pH 7.4); abrupt wavy boundary.

Bt—10 to 15 inches; grayish brown (10YR 5/2) clay, dark grayish brown (10YR 4/2) moist; strong medium angular blocky structure; hard, firm, very sticky and very plastic; few very fine and fine roots; many very fine irregular and tubular pores; common distinct clay films on faces of peds and in pores; 2 percent gravel; moderately alkaline (pH 8.2); clear smooth boundary.

Btk1—15 to 27 inches; light brownish gray (10YR 6/2) clay loam, brown (10YR 5/3) moist; moderate medium angular blocky structure; hard, firm, very sticky and very plastic; few very fine and fine roots; common very fine irregular and tubular pores; common distinct clay films on faces of peds and in pores; 2 percent gravel;

common soft lime masses; violently effervescent; moderately alkaline (pH 8.0); clear smooth boundary.

Btk2—27 to 49 inches; light brownish gray (10YR 6/2) clay loam, dark brown (10YR 4/3) moist; moderate coarse angular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; few very fine and fine roots; common prominent clay films on faces of pedes and in pores; 10 percent gravel; common thin coatings of lime on rock fragments; violently effervescent; slightly alkaline (pH 7.8); clear smooth boundary.

2Bkq—49 to 61 inches; light brownish gray (10YR 6/2) very gravelly sandy clay loam, dark brown (10YR 4/3) moist; weak fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine irregular and tubular pores; 50 percent gravel; few fine lime and silica coatings on rock fragments; slightly effervescent; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Thickness of mollic epipedon—7 to 10 inches

Depth to secondary carbonates—15 to 30 inches

Average annual soil temperature—42 to 47 degrees F

Depth to the claypan—5 to 10 inches

Particle-size control section:

Clay content (average)—35 to 55 percent

A1 horizon:

Value—2 or 3 moist

Chroma—2 or 3 dry or moist

Bt horizon:

Value—4 to 6 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Rock fragment content—0 to 10 percent

Btk horizon:

Value—5 or 6 dry, 2 to 5 moist

Chroma—2 or 3 dry, 3 or 4 moist

Rock fragment content—0 to 10 percent

Texture—silty clay loam or clay loam

2Bkq horizon:

Value—6 to 8 dry, 4 to 6 moist

Chroma—2 or 3 dry or moist

Rock fragment content—40 to 50 percent

Texture—very gravelly sandy clay loam or very gravelly clay loam

Biglost Series

Taxonomic classification: Coarse-loamy over sandy or sandy-skeletal, mixed, superactive Aquic Cumulic Haplocryolls

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderate or moderately rapid in the upper part and very rapid in the lower part

Position on landscape: Flood plains and stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 4 percent

Elevation: 4,800 to 6,600 feet
Average annual precipitation: 8 to 13 inches
Average annual air temperature: 35 to 40 degrees F
Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Biglost-Copperbasin complex, 0 to 4 percent slopes
Location in survey area: Custer County, Idaho; about 1 mile southwest of the junction of U.S. Highway 93 and Trail Creek Road; about 300 feet south and 500 feet east of the northwest corner of sec. 4, T. 8 N., R. 22 E.; lat. 44°03'35" N., long. 113°51'40" W.

Typical Pedon

- A—0 to 5 inches; brown (10YR 5/3) gravelly fine sandy loam, very dark grayish brown (10YR 3/2) moist; moderate medium platy structure; soft, very friable, slightly sticky and nonplastic; many very fine and fine and common medium roots; common very fine and fine tubular and irregular pores; 15 percent gravel; slightly alkaline (pH 7.5); clear wavy boundary.
- AB—5 to 9 inches; brown (10YR 5/3) very fine sandy loam, dark brown (10YR 3/3) moist; minor lenses of sandy material that is single grain; moderate thin platy structure; soft, very friable, nonsticky and nonplastic; common very fine, fine, and medium roots; common very fine and fine tubular and irregular pores; 5 percent gravel; neutral (pH 7.0); clear wavy boundary.
- Bw—9 to 23 inches; brown (10YR 5/3) very fine sandy loam, dark brown (10YR 3/3) moist; few fine distinct masses of iron depletion and accumulation, gray (10YR 5/1) and yellowish brown (10YR 5/4) dry; moderate medium and thick platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine tubular and irregular pores; 5 percent gravel; slightly alkaline (pH 7.5); clear wavy boundary.
- 2C1—23 to 37 inches; multicolored extremely gravelly loamy sand; single grain; loose, nonsticky and nonplastic; common very fine and fine roots; common fine and medium irregular pores; 65 percent gravel and 10 percent cobbles; slightly alkaline (pH 7.4); clear wavy boundary.
- 2C2—37 to 43 inches; grayish brown (10YR 5/2) extremely gravelly loamy fine sand, dark brown (10YR 3/3) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; common fine and medium irregular pores; 65 percent gravel and 20 percent cobbles; slightly alkaline (pH 7.4); clear wavy boundary.
- 2C3—43 to 60 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose, nonsticky and nonplastic; few fine roots; common fine and medium irregular pores; 50 percent gravel, 30 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.4).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 42 degrees F
 Average summer soil temperature—52 to 55 degrees F
 Thickness of mollic epipedon—16 to 25 inches
 Depth to redoximorphic features—5 to 20 inches
 Depth to sand and gravel (2C horizon)—20 to 30 inches
 Depth to high water table—30 to 72 inches in April through September
 Time of year flooding occurs—March through June

A horizon:

Hue—2.5Y or 10YR
 Value—4 or 5 dry

Chroma—2 or 3 dry or moist
 Texture—silt loam or gravelly fine sandy loam

The AB horizon is absent in some pedons.

Bw horizon:

Hue—2.5Y or 10YR
 Value—4 or 5 dry
 Chroma—2 to 4 dry, 2 or 3 moist
 Texture—very fine sandy loam or fine sandy loam
 Clay content—8 to 15 percent
 Gravel content—0 to 15 percent

2C horizon:

Texture—extremely gravelly loamy sand, extremely gravelly loamy fine sand, or
 extremely gravelly loamy coarse sand
 Clay content—0 to 5 percent
 Rock fragment content—60 to 90 percent

Bigrant Series

Taxonomic classification: Fine-loamy, mixed, superactive, calcareous Calcic
 Cryaquolls

Depth class: Very deep

Drainage class: Poorly drained and very poorly drained

Permeability: Moderately slow

Position on landscape: Stream terraces and flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 6 percent

Elevation: 4,800 to 6,600 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 36 to 42 degrees F

Frost-free period: 35 to 75 days

Typical Pedon Location

Map unit in which located: Bigrant-Thosand-Dickeypeak complex, 0 to 4 percent
 slopes

Location in survey area: Custer County, Idaho; about 3 miles northeast of Challis;
 about 180 feet north and 5 feet east of the southwest corner of sec. 14, T. 14 N.,
 R. 19 E.; lat. 49°35'00" N., long. 114°12'00" W.

Typical Pedon

Oa—4 inches to 0; highly decomposed organic material.

Ak1—0 to 10 inches; gray (10YR 6/1) silty clay loam, very dark grayish brown (10YR
 3/2) moist; moderate fine subangular blocky structure parting to moderate fine
 granular; slightly hard, friable, slightly sticky and slightly plastic; many very fine
 and fine and common medium roots; common very fine tubular pores; violently
 effervescent (20 percent calcium carbonate equivalent); slightly alkaline (pH 7.7);
 clear wavy boundary.

Ak2—10 to 19 inches; grayish brown (10YR 5/2) silty clay loam, very dark grayish
 brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure;
 slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine, and
 medium roots; common very fine and fine tubular pores; violently effervescent
 (25 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); gradual
 wavy boundary.

- Bkg1—19 to 25 inches; light brownish gray (2.5Y 6/2) clay loam, dark grayish brown (2.5Y 4/2) moist; many large prominent masses of iron accumulation, dark yellowish brown (10YR 4/6) moist; moderate medium subangular blocky structure parting to moderate fine granular; hard, firm, moderately sticky and moderately plastic; common very fine and fine and few medium roots; many very fine and common fine tubular pores; common sand-sized soft lime nodules throughout; violently effervescent (21 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); gradual wavy boundary.
- Bkg2—25 to 29 inches; light gray (5Y 7/2) clay, olive (5Y 5/3) moist; many large distinct masses of iron depletion, gray (5Y 5/1) moist; moderate medium subangular blocky structure parting to moderate fine granular; hard, firm, moderately sticky and moderately plastic; few very fine and fine roots; common very fine and fine tubular pores; 20 percent soft segregated lime; violently effervescent (26 percent calcium carbonate equivalent); moderately alkaline (pH 8.1); clear wavy boundary.
- Bg—29 to 36 inches; light olive gray (5Y 6/2) loam, olive gray (5Y 4/2) moist; common large prominent masses of iron depletion, dark greenish gray (5BG 4/1) moist; moderate medium subangular blocky structure parting to moderate fine granular; hard, firm, moderately sticky and moderately plastic; few very fine and fine roots; common very fine and fine tubular pores; moderately alkaline (pH 8.3); gradual wavy boundary.
- Cg—36 to 60 inches; pale olive (5Y 6/3) loam, greenish gray (5G 5/1) moist; common large prominent masses of iron depletion, dark yellowish brown (10YR 4/6) moist; massive; hard, firm, slightly sticky and moderately plastic; few very fine and fine roots; few very fine and fine tubular pores; moderately alkaline (pH 8.1).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 41 degrees F

Average summer soil temperature—41 to 43 degrees F

Depth to high water table—at the surface to a depth of 12 inches below the surface in April through July

Time of year flooding occurs—April through September

Depth to calcic horizon—3 to 12 inches

Particle-size control section:

Carbonate-free clay content—25 to 35 percent

Clay content (average)—35 to 45 percent

O horizon:

Kind of material—slightly decomposed to highly decomposed organic material

Ak horizon:

Value—5 to 7 dry, 3 to 5 moist

Chroma—1 or 2 dry or moist

Texture—silt loam or silty clay loam

Calcium carbonate equivalent—15 to 30 percent

Reaction—slightly alkaline or moderately alkaline

Bkg horizon:

Hue—2.5Y or 5Y

Value—6 or 7 dry, 3 to 5 moist

Chroma—1 to 3 dry or moist

Texture—clay loam, clay, or silty clay loam

Clay content—30 to 50 percent

Calcium carbonate equivalent—20 to 35 percent

Reaction—moderately alkaline or strongly alkaline

Bg horizon:

Hue—2.5Y or 5Y

Value—6 or 7 dry, 4 or 5 moist

Chroma—1 or 2 dry or moist

Clay content—20 to 26 percent

Cg horizon:

Hue—5Y, 5GY, or 5G

Clay content—20 to 26 percent

Blackfoot Series

Taxonomic classification: Fine-loamy, mixed, superactive, frigid Fluvaquentic
Haploxerolls

Depth class: Very deep*Drainage class:* Somewhat poorly drained and moderately well drained*Permeability:* Moderate*Position on landscape:* Flood plains and stream terraces*Parent material:* Kind—alluvium; source—mixed*Slope range:* 0 to 2 percent*Elevation:* 5,200 to 6,300 feet*Average annual precipitation:* 8 to 12 inches*Average annual air temperature:* 37 to 45 degrees F*Frost-free period:* 50 to 90 days**Typical Pedon Location***Map unit in which located:* Mooretown-Blackfoot-Borah complex, 0 to 2 percent slopes*Location:* Butte County, Idaho; about 3 miles northwest of Arco; about 640 feet south and 1,370 feet east of the northwest corner of sec. 26, T. 4 N., R. 26 E.**Typical Pedon**

A1—0 to 3 inches; gray (10YR 5/1) loam, very dark brown (10YR 2/2) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine tubular pores; slightly effervescent; slightly alkaline (pH 7.6); clear smooth boundary.

A2—3 to 10 inches; gray (10YR 5/1) loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots and few medium roots; common very fine tubular pores; slightly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Bw—10 to 19 inches; grayish brown (2.5Y 5/2) loam, very dark grayish brown (2.5Y 3/2) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine, and medium roots; common very fine tubular pores; slightly effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.

Bg1—19 to 27 inches; light brownish gray (10YR 6/2) loam, dark grayish brown (10YR 4/2) moist; few faint masses of iron accumulation, strong brown (7.5YR 4/6) moist; weak medium subangular blocky structure; slightly hard, firm, slightly sticky and slightly plastic; few very fine and fine roots; common very fine tubular pores; slightly effervescent (7 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); gradual wavy boundary.

Bg2—27 to 36 inches; grayish brown (2.5Y 5/2) loam, dark grayish brown (2.5Y 4/2) moist; many prominent masses of iron accumulation, strong brown (7.5YR 4/6)

moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine and fine roots; slightly effervescent (11 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.

Bg3—36 to 60 inches; grayish brown (2.5Y 5/2) sandy loam, very dark grayish brown (2.5Y 3/2) moist; many prominent masses of iron accumulation, strong brown (7.5YR 4/6) moist; massive; slightly hard, very friable, slightly sticky and nonplastic; few very fine and fine roots; slightly effervescent (6 percent calcium carbonate equivalent); slightly alkaline (pH 7.6).

Range in Characteristics

Profile:

Average annual soil temperature—42 to 47 degrees F

Depth to high water table—18 to 72 inches in March through October

Thickness of mollic epipedon—13 to 19 inches

Particle-size control section:

Clay content (average)—18 to 27 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Bw and Bg horizons:

Hue—10YR or 2.5Y

Value—3 to 6 dry, 2 to 4 moist

Chroma—2 or 3 dry or moist

Reaction—slightly alkaline or moderately alkaline

Texture—loam or silt loam

Taxadjunct Features

The Blackfoot soils in detailed soil map units 15 and 16 are moderately well drained and do not have a water table above a depth of 48 inches. They are classified as Torrifluventic Haploxerolls.

Bluedome Series

Taxonomic classification: Coarse-loamy, carbonatic Xereptic Petrocrydids

Depth class: Moderately deep to a duripan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—limestone

Slope range: 2 to 8 percent

Elevation: 6,300 to 6,900 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free period: 40 to 60 days

Typical Pedon Location

Map unit in which located: Bluedome loam, 2 to 6 percent slopes

Location in survey area: Custer County, Idaho; about 1.5 miles east of Donkey Hills; about 1,800 feet east and 300 feet south of the northwest corner of sec. 12, T. 10 N., R. 25 E.; lat. 44°13'03" N., long. 113°25'45" W.

Typical Pedon

- A—0 to 3 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many fine and very fine and few medium roots; 2 percent gravel; slightly effervescent; moderately alkaline (pH 8.2); clear smooth boundary.
- Bk1—3 to 11 inches; pale brown (10YR 6/3) loam, dark brown (10YR 4/3) moist; moderate coarse and medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common fine and very fine and few medium roots; 2 percent gravel; strongly effervescent; moderately alkaline (pH 8.2); clear smooth boundary.
- Bk2—11 to 17 inches; very pale brown (10YR 7/3) loam, light yellowish brown (10YR 6/4) moist; moderate coarse and medium subangular blocky structure; hard, very friable, slightly sticky and slightly plastic; few fine and very fine roots; 5 percent gravel; violently effervescent (52 percent calcium carbonate equivalent); strongly alkaline (pH 8.6); clear smooth boundary.
- Bk3—17 to 34 inches; very pale brown (10YR 8/3) loam, very pale brown (10YR 7/3) moist; weak coarse and medium subangular blocky structure; hard, friable (somewhat brittle), slightly sticky and slightly plastic; few fine and very fine roots; 10 percent gravel; violently effervescent (62 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); abrupt smooth boundary.
- 2Bkqm—34 to 46 inches; very pale brown (10YR 8/4) strongly cemented duripan, pink (7.5YR 7/4) moist; massive; cemented with silica and lime; many opal coatings on surface of peds; very few very fine roots in cracks; 40 percent gravel; violently effervescent; strongly alkaline (pH 8.6); clear smooth boundary.
- 2Bkq1—46 to 53 inches; very pale brown (10YR 8/3) extremely gravelly loamy coarse sand, very pale brown (10YR 7/3) moist; massive; very hard, firm, nonsticky and nonplastic; moderately cemented with silica and lime; 85 percent gravel; violently effervescent; strongly alkaline (pH 8.6); clear smooth boundary.
- 2Bkq2—53 to 60 inches; very pale brown (10YR 8/3) extremely gravelly loamy coarse sand, very pale brown (10YR 7/3) moist; massive; loose; very few very fine roots; common silica pendants on underside of gravel; 85 percent gravel; violently effervescent; strongly alkaline (pH 8.6).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 42 degrees F
 Depth to duripan—20 to 40 inches
 Depth to calcic horizon—7 to 14 inches
 Reaction—moderately alkaline or strongly alkaline

Particle-size control section:

Clay content—10 to 16 percent
 Rock fragment content—5 to 35 percent
 Calcium carbonate equivalent—40 to 70 percent

A horizon:

Value—4 to 6 dry, 3 or 4 moist
 Chroma—2 or 3 dry or moist
 Texture—loam or gravelly loam

Bk horizon:

Value—5 to 8 dry, 4 to 7 moist
 Chroma—2 to 4 dry or moist
 Texture—loam, gravelly loam, or gravelly sandy loam

2Bkqm horizon:

Strength of cementation—strong
 Rock fragment content—50 to 85 percent

2Bkq horizon:

Value—6 to 8 dry, 5 to 7 moist
 Chroma—2 to 4 dry or moist
 Texture—extremely gravelly loamy coarse sand, extremely gravelly sandy loam, or
 extremely gravelly loamy sand
 Rock fragment content—60 to 85 percent

Bock Series

Taxonomic classification: Coarse-loamy, mixed, superactive, frigid Calcic
 Haploxerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Stream terraces and alluvial fans

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 8 percent

Elevation: 3,800 to 6,600 feet

Average annual precipitation: 10 to 13 inches

Average annual air temperature: 39 to 45 degrees F

Frost-free period: 70 to 100 days

Typical Pedon Location

Map unit in which located: Bock-Bromaglin complex, 1 to 4 percent slopes

Location in survey area: Lemhi County, Idaho; about 9 miles northeast of Ellis;
 about 1,000 feet north and 500 feet east of the southwest corner of sec. 22,
 T. 18 N., R. 21 E.

Typical Pedon

Ap—0 to 4 inches; brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; moderate
 fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic;
 common very fine and fine and few medium roots; many very fine and fine
 irregular pores; neutral (pH 7.2); clear smooth boundary.

A—4 to 11 inches; brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; moderate
 fine subangular blocky structure parting to moderate granular; slightly hard, friable,
 nonsticky and nonplastic; common very fine and fine roots and few medium roots;
 many very fine and fine irregular pores; neutral (pH 7.2); clear wavy boundary.

Bw—11 to 18 inches; yellowish brown (10YR 5/4) silt loam, dark brown (10YR 4/3)
 moist; moderate medium prismatic structure; slightly hard, friable, slightly sticky
 and nonplastic; common very fine and fine roots; common very fine irregular pores
 and common fine tubular pores; slightly alkaline (pH 7.4); clear wavy boundary.

Bk1—18 to 24 inches; light brownish gray (10YR 6/2) gravelly loam, brown (10YR 5/3)
 moist; moderate medium prismatic structure; slightly hard, friable, slightly sticky
 and slightly plastic; few fine roots; common very fine irregular pores and few fine
 tubular pores; 15 percent gravel; masses of lime on peds; violently effervescent;
 slightly alkaline (pH 7.6); clear wavy boundary.

Bk2—24 to 28 inches; grayish brown (10YR 5/2) fine sandy loam, dark brown (10YR
 4/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; few fine roots;
 many very fine and fine irregular pores; slightly effervescent; slightly alkaline (pH
 7.4); abrupt wavy boundary.

- BC—28 to 48 inches; pale brown (10YR 6/3) fine sandy loam, dark brown (10YR 4/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; few fine roots; common very fine irregular pores and common fine tubular pores; violently effervescent; slightly alkaline (pH 7.8); abrupt wavy boundary.
- 2C—48 to 60 inches; light brownish gray (10YR 6/2) extremely gravelly loamy sand, dark grayish brown (10YR 4/2) moist; single grain; loose, nonsticky and nonplastic; many very fine and fine irregular pores; 55 percent gravel and 10 percent cobbles; few very thin patchy lime coatings on underside of rock fragments; slightly alkaline (pH 7.4).

Range in Characteristics

Profile:

Average annual soil temperature—43 to 47 degrees F
 Thickness of mollic epipedon—7 to 12 inches
 Depth to calcic horizon—12 to 24 inches
 Reaction—neutral or slightly alkaline
 Depth to sand and gravel (2C horizon)—40 to 60 inches or more

Particle-size control section:

Clay content—14 to 18 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist
 Texture—loam or silt loam

Bw and Bk horizons:

Value—5 or 6 dry, 4 or 5 moist
 Chroma—2 to 4 dry or moist
 Texture—loam, gravelly loam, or fine sandy loam

2C horizon:

Value—5 to 8 dry, 4 to 6 moist
 Texture—very gravelly loamy sand, extremely gravelly coarse sand, or extremely gravelly loamy sand

Bockston Series

Taxonomic classification: Fine-loamy, mixed, superactive, frigid Aridic Calcixerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Stream terraces and fan terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 4 percent

Elevation: 5,400 to 5,600 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 41 to 43 degrees F

Frost-free period: 70 to 80 days

Typical Pedon Location

Map unit in which located: Bockston loam, 0 to 4 percent slopes

Location in survey area: Custer County, Idaho; about 2 miles west of Darlington; about 1,500 feet south and 800 feet east of the northwest corner of sec. 35, T. 6 N., R. 25 E.

Typical Pedon

- Ap—0 to 8 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; moderate medium granular structure; soft, very friable, nonsticky and slightly plastic; many very fine and fine roots and common medium roots; many very fine and fine tubular pores; 5 percent gravel; slightly effervescent (6 percent calcium carbonate equivalent); slightly alkaline (pH 7.6); clear smooth boundary.
- Bw—8 to 22 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, very friable, slightly sticky and plastic; many very fine and common fine roots; many very fine and fine and few medium tubular pores; strongly effervescent (6 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); gradual smooth boundary.
- Bk1—22 to 34 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; soft, very friable, slightly sticky and plastic; common very fine and fine roots; many very fine tubular pores; violently effervescent (5 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); gradual smooth boundary.
- Bk2—34 to 47 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine tubular pores; 10 percent gravel; strongly effervescent (25 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear smooth boundary.
- 2Bk3—47 to 60 inches; pale brown (10YR 6/3) gravelly fine sandy loam, brown (10YR 5/3) moist; weak medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; few very fine roots; common fine and medium tubular pores; 30 percent gravel; strongly effervescent (10 percent calcium carbonate equivalent); slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—43 to 45 degrees F
 Thickness of mollic epipedon—8 to 14 inches
 Depth to calcic horizon—14 to 22 inches
 Reaction—slightly alkaline or moderately alkaline

A horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist
 Reaction—slightly alkaline or moderately alkaline

Bk horizon:

Value—5 to 7 dry, 3 to 5 moist
 Chroma—2 or 3 dry or moist
 Texture—silt loam or loam
 Rock fragment content—0 to 15 percent
 Calcium carbonate equivalent—15 to 30 percent

Borah Series

Taxonomic classification: Sandy-skeletal, mixed, frigid Typic Calciaquolls

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Flood plains and stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 5,000 to 6,300 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 37 to 45 degrees F

Frost-free period: 50 to 90 days

Typical Pedon Location

Map unit in which located: Mooretown-Blackfoot-Borah complex, 0 to 2 percent slopes

Location in survey area: Custer County, Idaho; about 1 mile east of Darlington; about 500 feet east and 200 feet south of the northwest corner of sec. 32, T. 6 N., R. 26 E.; lat. 43°38'48" N., long. 113°23'40" W.

Typical Pedon

A—0 to 4 inches; dark grayish brown (2.5Y 4/2) loam, very dark grayish brown (2.5Y 3/2) moist; moderate fine granular structure; slightly hard, friable, nonsticky and slightly plastic; common very fine and fine roots; many very fine and fine irregular pores; 3 percent gravel; slightly effervescent; slightly alkaline (pH 7.6); clear smooth boundary.

Bkg1—4 to 9 inches; dark grayish brown (2.5Y 4/2) loam, very dark grayish brown (2.5Y 3/2) moist; moderate fine and medium subangular blocky structure; hard, friable, nonsticky and slightly plastic; common very fine and fine roots; many very fine and fine irregular pores; 5 percent gravel; common thin coatings of lime on underside of rock fragments; strongly effervescent in matrix (10 percent calcium carbonate equivalent); slightly alkaline (pH 7.6); clear smooth boundary.

Bkg2—9 to 12 inches; dark grayish brown (2.5Y 4/2) loam, very dark grayish brown (2.5Y 3/2) moist; many distinct masses of iron accumulation, light olive brown (2.5Y 5/4) moist; moderate medium subangular blocky structure; slightly hard, friable, nonsticky and slightly plastic; few fine and common medium roots; many very fine and fine irregular pores; 5 percent gravel; many thin coatings of lime on underside of rock fragments; slightly effervescent in matrix (8 percent calcium carbonate equivalent); slightly alkaline (pH 7.6); clear smooth boundary.

2Cg1—12 to 17 inches; grayish brown (2.5Y 5/2) extremely gravelly loamy sand, very dark grayish brown (2.5Y 3/2) moist; common medium prominent masses of iron accumulation, dark yellowish brown (10YR 4/6) moist; single grain; loose, nonsticky and nonplastic; common very fine, fine, and medium roots; many fine and medium irregular pores; 65 percent gravel; moderately alkaline (pH 7.9); gradual smooth boundary.

2Cg2—17 to 27 inches; multicolored, dominantly grayish brown (2.5Y 5/2) extremely gravelly loamy coarse sand, very dark grayish brown (2.5Y 3/2) moist; common medium prominent masses of iron accumulation, dark yellowish brown (10YR 4/6) moist; single grain; loose, nonsticky and nonplastic; common very fine, fine, and medium roots; many very fine and fine irregular pores; 65 percent gravel; moderately alkaline (pH 7.9); gradual smooth boundary.

2Cg3—27 to 60 inches; multicolored, dominantly gray (N 5/0) extremely gravelly coarse sand, very dark gray (N 3/0) moist; common medium prominent masses of iron accumulation, dark yellowish brown (10YR 4/6) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; many fine and medium irregular pores; 60 percent gravel; moderately alkaline (pH 7.9).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 42 degrees F

Thickness of mollic epipedon—10 to 16 inches

Depth to high water table—12 to 24 inches in April through August

Time of year flooding occurs—April through May
 Reaction—slightly alkaline or moderately alkaline
 Depth to sand and gravel (2Cg horizon)—10 to 14 inches
 Depth to calcic horizon—2 to 7 inches

Particle-size control section:

Clay content (average)—1 to 6 percent
 Rock fragment content (average)—60 to 75 percent

A horizon:

Hue—10YR or 2.5Y
 Value—4 or 5 dry, 2 or 3 moist
 Chroma—1 or 2 dry or moist

Bkg horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—1 or 2 dry or moist
 Texture—gravelly sandy loam, gravelly loam, or loam
 Calcium carbonate equivalent—5 to 20 percent

2Cg horizon:

Hue—neutral, or 2.5Y or 5Y
 Value—4 to 6 dry, 2 to 4 moist
 Chroma—0 to 2 dry or moist
 Texture—extremely gravelly loamy coarse sand, extremely gravelly coarse sand, or extremely gravelly loamy sand
 Calcium carbonate equivalent—0 to 10 percent

Borco Series

Taxonomic classification: Sandy-skeletal, mixed, frigid Torrifuventic Haploxerolls

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Flood plains and stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 5,000 to 6,300 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 37 to 45 degrees F

Frost-free period: 50 to 90 days

Typical Pedon Location

Map unit in which located: Mooretown-Borco complex, 0 to 2 percent slopes

Location: Butte County, Idaho; about 1 mile northwest of Arco; about 1,400 feet north and 2,080 feet east of the southwest corner of sec. 26, T. 4 N., R. 26 E.; lat. 43°38'32" N., long. 113°19'39" W.

Typical Pedon

A—0 to 2 inches; grayish brown (10YR 5/2) very gravelly loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, friable, nonsticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 35 percent gravel; strongly effervescent with disseminated lime; slightly alkaline (pH 7.6); abrupt smooth boundary.

Bk1—2 to 5 inches; brown (10YR 5/3) gravelly loam, very dark grayish brown (10YR

3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, nonsticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 30 percent gravel; few fine rounded soft masses of lime and few faint hard coatings of lime on underside of rock fragments; strongly effervescent with disseminated lime (6 percent calcium carbonate equivalent); slightly alkaline (pH 7.7); clear wavy boundary.

Bk2—5 to 10 inches; grayish brown (10YR 5/2) gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, firm, nonsticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 30 percent gravel; few fine rounded soft masses of lime and few faint hard coatings of lime on underside of rock fragments; slightly effervescent with disseminated lime (6 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.

2C1—10 to 20 inches; multicolored, dominantly grayish brown (10YR 5/2) extremely gravelly sand, very dark grayish brown (10YR 3/2) moist; few fine distinct masses of iron accumulation, yellowish brown (10YR 5/4) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine roots; many fine and medium irregular pores; 65 percent gravel; moderately alkaline (pH 7.9); clear wavy boundary.

2C2—20 to 26 inches; multicolored, dominantly light brownish gray (10YR 6/2) extremely gravelly sand, dark grayish brown (10YR 4/2) moist; common medium prominent masses of iron accumulation on rock fragments, yellowish brown (10YR 5/8) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine and few medium roots; many very fine and fine irregular pores; 80 percent gravel and 1 percent cobbles; moderately alkaline (pH 7.9); clear wavy boundary.

2C3—26 to 60 inches; multicolored, dominantly grayish brown (10YR 5/2) extremely gravelly loamy coarse sand, dark brown (10YR 3/3) moist; common medium prominent masses of iron accumulation on rock fragments, yellowish brown (10YR 5/8) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine and few medium roots; many fine and medium irregular pores; 80 percent gravel; moderately alkaline (pH 7.9).

Range in Characteristics

Profile:

Thickness of mollic epipedon—10 to 16 inches

Average annual soil temperature—40 to 44 degrees F

Depth to relic mottles and sand and gravel (2C horizon)—10 to 20 inches

Particle-size control section:

Clay content—1 to 6 percent

Rock fragment content (average)—60 to 80 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Reaction—slightly alkaline or moderately alkaline

Bk horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Rock fragment content—25 to 40 percent

Texture—gravelly loam, gravelly sandy loam, or very gravelly sandy loam

Calcium carbonate equivalent—3 to 10 percent

Reaction—slightly alkaline or moderately alkaline

2C horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Rock fragment content—60 to 85 percent

Texture—extremely gravelly sand or extremely gravelly loamy coarse sand

Calcium carbonate equivalent—0 to 5 percent

Reaction—slightly alkaline or moderately alkaline

Brabas Series*Taxonomic classification:* Fine, smectitic Inceptic Haplocryalfs*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Slow*Position on landscape:* Hills and mountains*Parent material:* Kind—uplifted lacustrine sediment with an influence of glacial till;
source—mixed*Slope range:* 8 to 30 percent*Elevation:* 6,800 to 9,000 feet*Average annual precipitation:* 13 to 22 inches*Average annual air temperature:* 35 to 40 degrees F*Frost-free period:* 30 to 60 days**Typical Pedon Location***Map unit in which located:* Brabas-Heathcoat complex, 8 to 30 percent slopes*Location in survey area:* Lemhi County, Idaho; about 23 miles southeast of Leadore;
about 2,600 feet east and 900 feet north of the southwest corner of sec. 8,
T. 12 N., R. 28 E.; lat. 44°22'56" N., long. 113°08'40" W.**Typical Pedon**

A—0 to 3 inches; grayish brown (10YR 5/2) very gravelly loam, dark brown (10YR 3/3) moist; moderate medium platy structure parting to weak fine granular; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine irregular pores; 35 percent gravel; slightly effervescent; slightly alkaline (pH 7.6); clear smooth boundary.

Bt—3 to 8 inches; brown (10YR 5/3) gravelly clay loam, dark brown (10YR 4/3) moist; moderate medium subangular blocky structure; hard, firm, moderately sticky and moderately plastic; common very fine and few fine roots; common very fine irregular pores; common distinct clay films on faces of peds and in pores; 20 percent gravel; strongly effervescent; neutral (pH 7.1); abrupt smooth boundary.

Btk—8 to 17 inches; light yellowish brown (10YR 6/4) silty clay, brown (10YR 5/3) moist; strong medium prismatic structure; extremely hard, extremely firm, very sticky and very plastic; common very fine roots; few very fine irregular pores; many prominent clay films on faces of peds and in pores; lime coatings less than 1 millimeter thick on faces of peds; slightly effervescent; slightly alkaline (pH 7.8); abrupt smooth boundary.

2Bkq1—17 to 24 inches; white (10YR 8/1) extremely gravelly loam, light gray (10YR 7/2) moist; massive; hard, firm, slightly sticky and slightly plastic; few very fine roots; common very fine and few fine and medium irregular pores; 55 percent gravel and 20 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.0); abrupt wavy boundary.

- 2Bkq2—24 to 30 inches; pale brown (10YR 6/3) extremely gravelly loamy sand, very pale brown (10YR 7/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; few very fine roots; many very fine and few fine and medium irregular pores; 60 percent gravel and 25 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.4); abrupt wavy boundary.
- 3Btb1—30 to 50 inches; light yellowish brown (10YR 6/4) gravelly silty clay, brown (10YR 5/3) moist; strong medium angular blocky structure; very hard, very firm, very sticky and very plastic; few very fine roots; common very fine tubular pores and few very fine irregular pores; many prominent clay films on faces of peds and in pores; 15 percent gravel; slightly effervescent; slightly alkaline (pH 7.7); abrupt smooth boundary.
- 3Btb2—50 to 60 inches; very pale brown (10YR 7/3) silty clay, pale brown (10YR 6/3) moist; moderate medium angular blocky structure; hard, firm, very sticky and very plastic; common very fine irregular pores; common distinct clay films on faces of peds and in pores; violently effervescent; slightly alkaline (pH 7.5).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F
 Average summer soil temperature—52 to 59 degrees F
 Depth to secondary carbonates—2 to 17 inches
 Reaction—neutral to moderately alkaline

Particle-size control section:

Clay content (average)—35 to 50 percent
 Rock fragment content (average)—5 to 20 percent

A horizon:

Chroma—2 or 3 dry or moist

Bt and Btk horizons:

Hue—7.5YR or 10YR
 Value—5 to 7 dry, 4 to 6 moist
 Chroma—2 to 6 dry, 3 to 6 moist
 Texture—gravelly clay loam or silty clay

2Bkq horizon:

Value—6 to 8 dry, 5 to 7 moist
 Chroma—1 to 4 dry, 2 to 6 moist
 Texture—extremely gravelly loamy sand or extremely gravelly loam
 Rock fragment content—60 to 85 percent

3Btb horizon (where present):

Value—6 or 7 dry, 5 or 6 moist
 Chroma—3 or 4 dry or moist
 Texture—silty clay or gravelly silty clay
 Rock fragment content—5 to 20 percent
 Reaction—slightly alkaline or moderately alkaline

Breitenbach Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Calcic Haploxerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Alluvial fans and stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 12 percent

Elevation: 3,900 to 6,500 feet

Average annual precipitation: 10 to 12 inches

Average annual air temperature: 38 to 45 degrees F

Frost-free period: 70 to 90 days

Typical Pedon Location

Map unit in which located: Breitenbach gravelly loam, 1 to 4 percent slopes

Location: Butte County, Idaho; about 2 miles southeast of Arco; about 2,000 feet west and 100 feet south of the northeast corner of sec. 36, T. 20 N., R. 23 E.

Typical Pedon

A1—0 to 5 inches; brown (10YR 5/3) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate medium platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 15 percent gravel; slightly alkaline (pH 7.5); clear smooth boundary.

A2—5 to 11 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 40 percent gravel; slightly alkaline (pH 7.7); clear smooth boundary.

Bw—11 to 18 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 45 percent gravel; slightly alkaline (pH 7.8); clear smooth boundary.

Bk—18 to 32 inches; brown (10YR 5/3) very gravelly sandy loam, dark brown (10YR 4/3) moist; weak medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine roots; many very fine and fine irregular pores; 50 percent gravel and 5 percent cobbles; lime coatings 1 millimeter thick on underside of rock fragments; slightly effervescent; moderately alkaline (pH 7.9); gradual wavy boundary.

2Bkq1—32 to 40 inches; brown (10YR 5/3) extremely gravelly sandy loam, dark brown (10YR 4/3) moist; weak medium and coarse subangular blocky structure; soft, very friable, slightly sticky and nonplastic; common very fine and fine and few medium roots; many fine and medium irregular pores; 65 percent gravel and 5 percent cobbles; lime coatings and silica pendants 1 millimeter thick on underside of rock fragments; slightly effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.

2Bkq2—40 to 60 inches; yellowish brown (10YR 5/4) extremely gravelly loamy coarse sand, dark yellowish brown (10YR 4/4) moist; single grain; loose; common very fine and fine roots and few medium roots; 50 percent gravel and 15 percent cobbles; lime coatings and silica pendants 1 millimeter thick on underside of rock fragments; slightly effervescent; moderately alkaline (pH 8.2).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 45 degrees F

Thickness of mollic epipedon—9 to 14 inches

Depth to calcic horizon—12 to 20 inches

Depth to sand and gravel (2Bkq2 horizon)—30 to 60 inches or more

Particle-size control section:

Clay content (average)—10 to 16 percent
 Rock fragment content—45 to 70 percent

A horizon:

Value—4 or 5 dry
 Chroma—2 or 3 dry or moist
 Texture—loam or gravelly loam

Bw horizon:

Rock fragment content—15 to 45 percent
 Texture—very gravelly loam or very gravelly sandy loam

Bk horizon and upper part of 2Bkq horizon:

Texture—extremely gravelly sandy loam, very gravelly sandy loam, or extremely gravelly loam

Lower part of 2Bkq horizon:

Value—5 to 7 dry, 3 to 6 moist
 Chroma—2 to 4 dry or moist
 Texture—extremely gravelly loamy sand or extremely gravelly loamy coarse sand
 Rock fragment content—35 to 75 percent

Bromaglin Series

Taxonomic classification: Sandy-skeletal, mixed, frigid Calcic Haploxerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Stream terraces and fan terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 4 percent

Elevation: 3,800 to 6,600 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 39 to 45 degrees F

Frost-free period: 75 to 100 days

Typical Pedon Location

Map unit in which located: Bock-Bromaglin complex, 1 to 4 percent slopes

Location in survey area: Lemhi County, Idaho; about 0.5 mile northeast of the confluence of Ezra Creek and the Salmon River; about 1,300 feet east and 900 feet north of the southwest corner of sec. 4, T. 17 N., R. 21 E.

Typical Pedon

Ap—0 to 5 inches; brown (10YR 4/3) silt loam, dark brown (10YR 3/3) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; common very fine, fine, and medium roots; many very fine and fine irregular pores; 5 percent gravel; neutral (pH 7.2); clear smooth boundary.

Bw—5 to 12 inches; brown (10YR 5/3) very fine sandy loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; common very fine, fine, and medium roots; many very fine and fine irregular pores; 5 percent gravel; neutral (pH 7.2); gradual wavy boundary.

Bk1—12 to 20 inches; light brownish gray (10YR 6/2) sandy loam, dark grayish brown (10YR 4/2) moist; weak fine prismatic structure parting to weak fine and medium

subangular blocky; soft, very friable, nonsticky and nonplastic; common very fine roots; common very fine and fine irregular pores and few fine tubular pores; 10 percent gravel; few lime coatings 1 millimeter thick on underside of rock fragments; violently effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

2Bk2—20 to 60 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose, nonsticky and nonplastic; common very fine roots; common fine and medium irregular pores; 70 percent gravel and 10 percent cobbles; few thin lime coatings less than 1 millimeter thick on underside of some rock fragments; strongly effervescent; slightly alkaline (pH 7.5).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 44 degrees F

Thickness of mollic epipedon—8 to 14 inches

Reaction—neutral or slightly alkaline

Depth to calcic horizon—8 to 14 inches

Depth to sand and gravel (2Bk horizon)—14 to 24 inches

Particle-size control section:

Clay content (average)—5 to 10 percent

Rock fragment content (average)—40 to 80 percent

A horizon:

Value—4 or 5 dry

Chroma—2 or 3 dry or moist

Bw horizon:

Value—4 or 5 dry

Chroma—2 or 3 dry or moist

Rock fragment content—0 to 15 percent

Bk horizon:

Value—5 to 7 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Texture—sandy loam or gravelly loam

Rock fragment content—10 to 30 percent

Calcium carbonate equivalent—15 to 20 percent

2Bk horizon:

Texture—extremely gravelly loamy coarse sand or extremely gravelly coarse sand

Rock fragment content—60 to 85 percent

Bunting Series

Taxonomic classification: Sandy-skeletal, mixed, frigid Calcic Haploxerolls

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Stream terraces

Parent material: Kind—alluvium; source—mixed (dominantly quartzite)

Slope range: 0 to 2 percent

Elevation: 6,000 to 6,600 feet

Average annual precipitation: 12 to 15 inches

Average annual air temperature: 41 to 45 degrees F

Frost-free period: 50 to 70 days

Typical Pedon Location

Map unit in which located: Bunting gravelly loam, 0 to 2 percent slopes

Location in survey area: Custer County, Idaho; about 3.25 miles east of Moffett Spring; about 1,300 feet south and 1,200 feet west of the northeast corner of sec. 21, T. 11 N., R. 26 E.; lat. 44°16'44" N., long. 113°21'35" W.

Typical Pedon

- A1—0 to 3 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine roots; 15 percent gravel and 3 percent cobbles; neutral (pH 7.3); clear smooth boundary.
- A2—3 to 10 inches; yellowish brown (10YR 5/4) gravelly loam, dark brown (10YR 3/3) moist; moderate medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine, fine, and medium roots; common very fine tubular pores; 15 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.4); gradual smooth boundary.
- Bw1—10 to 18 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate coarse subangular blocky structure; slightly hard, very friable, nonsticky and slightly plastic; common very fine, fine, and medium roots; common very fine tubular pores; 25 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.6); clear wavy boundary.
- Bw2—18 to 22 inches; brown (10YR 5/3) very gravelly sandy loam, dark yellowish brown (10YR 3/4) moist; weak fine subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; common very fine and fine and few medium roots; common very fine tubular pores; 35 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.7); gradual wavy boundary.
- 2ABk—22 to 42 inches; brown (10YR 4/3) extremely gravelly loamy coarse sand, dark brown (10YR 3/3) moist; single grain; loose; common very fine and fine roots; 50 percent gravel and 15 percent cobbles; slightly alkaline (pH 7.8); gradual wavy boundary.
- 2Bkq—42 to 60 inches; brown (10YR 4/3) extremely gravelly coarse sand, dark brown (10YR 3/3) moist; single grain; loose; common very fine and fine roots; 25 percent gravel, 20 percent cobbles, and 5 percent stones; common lime coatings and less than 5 percent silica coatings as much as 1 millimeter thick on underside of rock fragments; slightly alkaline (pH 7.7).

Range in Characteristics

Profile:

Thickness of mollic epipedon—10 to 19 inches

Average annual soil temperature—43 to 47 degrees F

Reaction—neutral or slightly alkaline

Depth to sand and gravel (2ABk horizon)—14 to 24 inches

Particle-size control section:

Clay content (average)—5 to 12 percent

Rock fragment content—40 to 75 percent

A1 horizon:

Value—2 or 3 moist

Chroma—2 or 3 dry or moist

Bw1 horizon:

Chroma—3 or 4 dry or moist

Texture—gravelly loam or very gravelly loam

Rock fragment content—15 to 40 percent

Bw2 horizon:

Chroma—3 or 4 dry or moist

Texture—very gravelly sandy loam, extremely gravelly sandy loam, or extremely gravelly loam

Rock fragment content—40 to 65 percent

2ABk and 2Bkq horizons:

Value—4 to 7 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Texture—very gravelly loamy coarse sand, very gravelly coarse sand, extremely gravelly coarse sand, extremely gravelly loamy coarse sand, or extremely cobbly coarse sand

Rock fragment content—40 to 75 percent

Bursteadt Series

Taxonomic classification: Coarse-loamy, mixed, superactive, frigid Pachic Calcixerolls

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 3 percent

Elevation: 3,700 to 5,000 feet

Average annual precipitation: 8 to 14 inches

Average annual air temperature: 38 to 45 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Bursteadt-Tohobit complex, 0 to 3 percent slopes

Location in survey area: Lemhi County, Idaho; about 1 mile north of Ellis; about 1,800 feet south and 2,500 feet west of the northeast corner of sec. 24, T. 16 N., R. 20 E.

Typical Pedon

A—0 to 5 inches; grayish brown (10YR 5/2) very fine sandy loam, very dark grayish brown (10YR 3/2) moist; weak medium platy structure; soft, very friable, nonsticky and nonplastic; common very fine and fine and few medium roots; many very fine and fine irregular pores; slightly effervescent (4 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear smooth boundary.

Ak1—5 to 12 inches; grayish brown (10YR 5/2) sandy loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and common fine roots; many very fine and fine irregular pores; strongly effervescent (15 percent calcium carbonate equivalent); carbonates are disseminated; moderately alkaline (pH 8.2); clear smooth boundary.

Ak2—12 to 17 inches; grayish brown (10YR 5/2) very fine sandy loam, very dark grayish brown (10YR 3/2) moist; weak very thick platy structure; soft, very friable, nonsticky and nonplastic; common very fine and fine roots; many very fine and fine irregular pores; violently effervescent (20 percent calcium carbonate equivalent); carbonates are disseminated; moderately alkaline (pH 8.2); clear smooth boundary.

Ak3—17 to 20 inches; brown (10YR 5/3) fine sandy loam, dark brown (10YR 3/3) moist; weak very thick platy structure; soft, very friable, nonsticky and nonplastic; common very fine and few fine and coarse roots; many very fine and fine irregular

- pores; slightly effervescent (6 percent calcium carbonate equivalent); carbonates are disseminated; moderately alkaline (pH 8.0); clear wavy boundary.
- Bw1—20 to 28 inches; brown (10YR 5/3) fine sandy loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine and few fine roots; many very fine and fine irregular pores; slightly alkaline (pH 7.6); clear wavy boundary.
- Bw2—28 to 31 inches; brown (10YR 5/3) sandy loam, dark brown (10YR 3/3) moist; common fine and medium distinct masses of iron accumulation that are yellowish brown (10YR 5/6) when moist; weak very thick platy structure; soft, very friable, nonsticky and nonplastic; common very fine and few fine roots; many very fine and fine irregular pores; 5 percent gravel; slightly alkaline (pH 7.6); clear wavy boundary.
- 2C—31 to 60 inches; multicolored extremely cobbly coarse sand; few fine and medium faint masses of iron accumulation that are dark yellowish brown (10YR 4/6) when dry and are on rock fragments; single grain; loose, nonsticky and nonplastic; few very fine roots; many fine and medium irregular pores; 35 percent gravel and 45 percent cobbles; slightly alkaline (pH 7.6).

Range in Characteristics

Profile:

- Average annual soil temperature—40 to 44 degrees F
 Thickness of mollic epipedon—20 to 40 inches
 Depth to calcic horizon—3 to 6 inches
 Depth to sand and gravel (2C horizon)—25 to 35 inches
 Depth to high water table—24 to 36 inches in March through October
 Time of year flooding occurs—April through June
 Reaction—slightly alkaline or moderately alkaline

Particle-size control section:

- Clay content (average)—5 to 15 percent
 Rock fragment content (average)—10 to 35 percent

A horizon:

- Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist

Ak horizon:

- Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist
 Texture—sandy loam, fine sandy loam, or very fine sandy loam
 Rock fragment content—0 to 10 percent
 Calcium carbonate equivalent—15 to 25 percent

Bw horizon:

- Value—4 to 6 dry, 2 to 4 moist
 Chroma—2 or 3 dry or moist
 Texture—fine sandy loam or sandy loam
 Rock fragment content—0 to 5 percent

2C horizon:

- Texture—extremely cobbly coarse sand, extremely cobbly loamy coarse sand, or extremely gravelly coarse sand
 Reaction—slightly alkaline or moderately alkaline

Busterback Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Pachic Haplocryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Outwash fans and stream terraces

Parent material: Kind—glacial outwash and alluvium; source—mixed

Slope range: 2 to 6 percent

Elevation: 6,300 to 7,300 feet

Average annual precipitation: 16 to 19 inches

Average annual air temperature: 33 to 37 degrees F

Frost-free period: 5 to 30 days

Typical Pedon Location

Map unit in which located: Busterback-Wiggleton complex, 2 to 6 percent slopes

Location in survey area: Custer County, Idaho; about 1 mile east of the junction of U.S. Highway 93 and Alturas Lake Road; about 300 feet south and 200 feet west of the northeast corner of sec. 15, T. 7 N., R. 14 E.

Typical Pedon

- A1—0 to 4 inches; dark grayish brown (10YR 4/2) very gravelly loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; common very fine and fine irregular pores; 35 percent gravel; moderately acid (pH 5.8); clear wavy boundary.
- A2—4 to 13 inches; brown (10YR 4/3) very gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; soft, friable, nonsticky and nonplastic; many very fine and fine and few medium roots; common very fine and fine irregular pores; 40 percent gravel; moderately acid (pH 5.8); clear wavy boundary.
- Bw—13 to 19 inches; brown (10YR 5/3) very gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine and fine and few medium roots; common very fine and fine irregular pores; 40 percent gravel and 10 percent cobbles; moderately acid (pH 5.9); gradual wavy boundary.
- BC—19 to 30 inches; dark grayish brown (10YR 4/2) extremely gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and fine and few medium roots; common very fine and fine irregular pores; 60 percent gravel and 5 percent cobbles; moderately acid (pH 6.0); gradual wavy boundary.
- 2C1—30 to 45 inches; dark grayish brown (2.5Y 4/2) extremely gravelly coarse sand, dark gray (N 3/0) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine and few medium roots; common medium and coarse irregular pores; 65 percent gravel and 5 percent cobbles; moderately acid (pH 6.0); clear wavy boundary.
- 2C2—45 to 60 inches; dark gray (5Y 4/1) extremely gravelly coarse sand, dark gray (N 3/0) moist; single grain; loose, nonsticky and nonplastic; common medium and coarse irregular pores; 60 percent gravel and 25 percent cobbles; slightly acid (pH 6.2).

Range in Characteristics

Profile:

Average annual soil temperature—34 to 38 degrees F

Average summer soil temperature—44 to 49 degrees F

Thickness of mollic epipedon—20 to 30 inches

Depth to sand and gravel (2C horizon)—20 to 30 inches

Particle-size control section:

Clay content (average)—10 to 18 percent

Rock fragment content (average)—50 to 75 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry, 1 to 3 moist

Reaction—strongly acid or moderately acid

Bw horizon:

Value—4 or 5 dry, 3 or 4 moist

Chroma—1 to 3 dry, 1 to 4 moist

Texture—very gravelly sandy loam or extremely gravelly sandy loam

Rock fragment content—50 to 85 percent

Reaction—moderately acid or slightly acid

2C horizon:

Hue—2.5Y or 5Y

Value—3 to 5 moist

Chroma—1 or 2 dry, 0 to 3 moist

Texture—extremely gravelly coarse sand or extremely cobbly sand

Rock fragment content—60 to 90 percent

Calcids*Taxonomic classification:* Calcids*Depth class:* Moderately deep to bedrock to very deep*Drainage class:* Well drained*Permeability:* Moderate*Position on landscape:* Mountains and fan terraces*Parent material:* Kind—slope alluvium and colluvium; source—mixed*Slope range:* 25 to 80 percent*Elevation:* 3,900 to 7,000 feet*Average annual precipitation:* 7 to 12 inches*Average annual air temperature:* 38 to 42 degrees F*Frost-free period:* 70 to 100 days***Representative Pedon Location****Map unit in which located:* Calcids-Rubble land-Rock outcrop complex, 50 to 80 percent slopes*Location in survey area:* Lemhi County, Idaho; about 11 miles north of Ellis; about 2,400 feet north and 2,400 feet west of the southeast corner of sec. 33, T. 18 N., R. 21 E.***Representative Pedon***

A—0 to 2 inches; brown (10YR 5/3) very cobbly loam, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; 20 percent gravel and 30 percent cobbles; neutral (pH 6.8); clear smooth boundary.

Bw—2 to 6 inches; brown (7.5YR 5/2) very gravelly loam, dark brown (7.5YR 4/2) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine tubular and irregular pores; 40 percent gravel and 10 percent cobbles; neutral (pH 6.8); clear wavy boundary.

- Bk1—6 to 16 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine tubular and irregular pores; 30 percent gravel and 25 percent cobbles; strongly effervescent; neutral (pH 7.0); clear wavy boundary.
- Bk2—16 to 37 inches; very pale brown (10YR 7/3) extremely gravelly loam, brown (10YR 5/3) moist; weak very fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine and fine roots; common very fine and fine tubular and irregular pores; 70 percent gravel and 10 percent cobbles; common lime coatings 1 to 3 millimeters thick on underside of rock fragments; violently effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.
- 2Bk3—37 to 60 inches; pinkish gray (7.5YR 6/2) extremely gravelly coarse sandy loam, brown (7.5YR 4/2) moist; massive; slightly hard, friable, nonsticky and nonplastic; common very fine and fine roots; common fine and medium irregular pores; 70 percent gravel and 5 percent cobbles; common lime coatings 1 to 3 millimeters thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.5).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 42 degrees F

Depth to bedrock—20 to 72 inches

Particle-size control section:

Clay content—10 to 18 percent

Rock fragment content—50 to 90 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist

Bw and Bk horizons:

Hue—7.5YR or 10YR

Value—5 to 7 dry, 4 to 6 moist

Chroma—2 or 3 dry, 2 to 4 moist

Texture—very gravelly loam, extremely gravelly loam, extremely cobbly sandy loam, extremely stony sandy loam, or very cobbly loam

Rock fragment content—50 to 90 percent

Calcium carbonate equivalent—5 to 15 percent

2Bk horizon (where present):

Texture—extremely gravelly coarse sandy loam, extremely gravelly loam, or extremely stony sandy loam

Rock fragment content—75 to 90 percent

Calcium carbonate equivalent—5 to 15 percent

Castlepeak Series

Taxonomic classification: Sandy-skeletal, mixed Typic Cryorthents

Depth class: Very deep

Drainage class: Excessively drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Position on landscape: Outwash fans, fan terraces, and stream terraces

Parent material: Kind—glacial outwash and alluvium; source—mixed

Slope range: 2 to 6 percent

Elevation: 6,300 to 7,500 feet

Average annual precipitation: 12 to 19 inches

Average annual air temperature: 33 to 38 degrees F

Frost-free period: 5 to 30 days

Typical Pedon Location

Map unit in which located: Castlepeak-Yankeefork complex, 2 to 6 percent slopes

Location in survey area: Blaine County, Idaho; about 2.5 miles northeast of Alturas Lake; about 2,500 feet south and 1,500 feet east of the northwest corner of sec. 4, T. 7 N., R. 14 E.

Typical Pedon

A—0 to 2 inches; brown (10YR 4/3) very gravelly sandy loam, dark brown (10YR 3/3) moist; weak fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 50 percent gravel; strongly acid (pH 5.4); abrupt smooth boundary.

Bw—2 to 7 inches; yellowish brown (10YR 5/4) very gravelly loamy sand, brown (7.5YR 4/4) moist; weak fine subangular blocky structure parting to weak fine granular; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 45 percent gravel; strongly acid (pH 5.4); clear smooth boundary.

BC—7 to 13 inches; yellowish brown (10YR 5/6) extremely gravelly loamy sand, dark yellowish brown (10YR 4/6) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine roots; many very fine and fine irregular pores; 65 percent gravel; strongly acid (pH 5.4); gradual smooth boundary.

C1—13 to 19 inches; light yellowish brown (10YR 6/4) extremely gravelly loamy sand, yellowish brown (10YR 5/4) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; many fine irregular pores; 70 percent gravel and 5 percent stones; moderately acid (pH 5.6); gradual wavy boundary.

C2—19 to 60 inches; light gray (10YR 7/2) extremely gravelly coarse sand, light brownish gray (10YR 6/2) moist; single grain; loose, nonsticky and nonplastic; few fine roots; many fine and medium irregular pores; 55 percent gravel, 15 percent cobbles, and 5 percent stones; moderately acid (pH 5.6).

Range in Characteristics

Profile:

Average annual soil temperature—34 to 39 degrees F

Average summer soil temperature—44 to 49 degrees F

Particle-size control section:

Clay content—0 to 5 percent

Rock fragment content—60 to 90 percent

A horizon:

Value—3 to 5 dry or moist

Chroma—3 or 4 dry or moist

Reaction—strongly acid or moderately acid

Bw horizon:

Hue—7.5YR or 10YR

Value—4 to 6 dry or moist

Clay content—2 to 8 percent

Rock fragment content—40 to 55 percent

BC and C horizons:

Hue—7.5YR or 10YR

Value—5 to 7 dry, 4 to 6 moist

Chroma—2 to 6 dry or moist

Texture—extremely gravelly loamy sand or extremely gravelly coarse sand
 Rock fragment content—65 to 90 percent
 Reaction—strongly acid or moderately acid

Challis Series

Taxonomic classification: Clayey-skeletal, smectitic, frigid Calcic Argixerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Position on landscape: Mountains

Parent material: Kind—colluvium; source—mixed

Slope range: 20 to 50 percent

Elevation: 4,800 to 6,500 feet

Average annual precipitation: 12 to 14 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free period: 60 to 80 days

Typical Pedon Location

Map unit in which located: Cronks-Challis association, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 8 miles northwest of Challis;
 about 1,280 feet west and 2,500 feet south of the northeast corner of sec. 24,
 T. 15 N., R. 18 E.

Typical Pedon

- A—0 to 4 inches; brown (10YR 4/3) gravelly clay loam, very dark grayish brown (10YR 3/2) moist; moderate very fine and fine granular structure; slightly hard, friable, moderately sticky and moderately plastic; many very fine, common fine, and few medium roots; many very fine irregular pores and few very fine tubular pores; 25 percent gravel and 5 percent cobbles; neutral (pH 7.0); clear wavy boundary.
- Bt1—4 to 12 inches; brown (10YR 5/3) very gravelly clay, dark brown (10YR 3/3) moist; strong very fine and fine subangular blocky structure; hard, firm, moderately sticky and very plastic; many very fine and few fine and medium roots; common very fine and fine tubular pores and few very fine irregular pores; many distinct clay films on faces of peds and in pores; 40 percent gravel; neutral (pH 7.0); clear wavy boundary.
- Bt2—12 to 23 inches; brown (10YR 5/3) very gravelly clay, dark grayish brown (10YR 4/2) moist; strong very fine and fine subangular blocky structure; hard, firm, moderately sticky and very plastic; few very fine and fine roots; common very fine and fine tubular pores and few very fine irregular pores; many distinct thick clay films on faces of peds and in pores; 40 percent gravel and 5 percent cobbles; neutral (pH 7.2); gradual wavy boundary.
- Bkq1—23 to 38 inches; light brownish gray (10YR 6/2) very gravelly loam, grayish brown (10YR 5/2) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; common very fine and fine tubular pores and few very fine irregular pores; 45 percent gravel and 5 percent cobbles; lime and silica layers 1 to 2 millimeters thick on underside of rock fragments; 15 percent soft secondary lime in veins along old root channels; strongly effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.
- Bkq2—38 to 60 inches; light brownish gray (10YR 6/2) extremely gravelly loam, grayish brown (10YR 5/2) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; common very fine tubular and irregular pores; 50 percent gravel and 10 percent cobbles; lime and silica layers 1 to 2 millimeters

thick on underside of rock fragments; 10 percent soft secondary lime in veins along old root channels; strongly effervescent; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 42 degrees F

Thickness of mollic epipedon—10 to 15 inches

Depth to secondary carbonates—15 to 36 inches

Particle-size control section:

Clay content—40 to 50 percent

Rock fragment content—35 to 60 percent

A horizon:

Value—3 to 5 dry and 2 or 3 moist

Chroma—2 or 3 dry or moist

Rock fragment content—15 to 35 percent

Bt horizon:

Value—4 to 6 dry and 2 to 5 moist

Chroma—2 to 4 dry or moist

Bkq horizon:

Value—5 or 6 dry and 4 to 6 moist

Chroma—2 or 3 dry or moist

Texture—very gravelly loam or extremely gravelly loam

Calcium carbonate equivalent—5 to 15 percent

Chamberlain Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Xeric Argicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow in the upper part and rapid in the lower part

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—quartzite, limestone, and granite

Slope range: 2 to 8 percent

Elevation: 6,400 to 7,500 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Chamberlain gravelly loam, 2 to 8 percent slopes

Location in survey area: Lemhi County, Idaho; about 18 miles southeast of Leadore;

about 1,680 feet south and 1,400 feet west of the northeast corner of sec. 4,

T. 13 N., R. 28 E.; lat. 44°29'13" N., long. 113°07'15" W.

Typical Pedon

A—0 to 2 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark brown (10YR 2/2) moist; moderate very fine and fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and common fine tubular pores; 15 percent gravel; neutral (pH 6.6); clear wavy boundary.

Bt1—2 to 6 inches; brown (10YR 5/3) gravelly clay loam, very dark grayish brown

- (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; many very fine and fine and few medium and coarse roots; common very fine and fine tubular pores and few very fine irregular pores; common faint clay films on faces of peds and in pores; 25 percent gravel and 5 percent cobbles; neutral (pH 6.6); clear wavy boundary.
- Bt2—6 to 13 inches; brown (10YR 5/3) very gravelly clay loam, dark brown (10YR 3/3) moist; weak fine prismatic structure parting to moderate fine subangular blocky; slightly hard, friable, moderately sticky and moderately plastic; common very fine and fine and few medium and coarse roots; common very fine and fine tubular pores and few very fine irregular pores; common faint and few distinct clay films on faces of peds and in pores; 35 percent gravel and 10 percent cobbles; neutral (pH 6.8); abrupt wavy boundary.
- Bkq1—13 to 17 inches; very pale brown (10YR 8/3) very gravelly loam, brown (10YR 5/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores; 30 percent gravel and 5 percent cobbles; lime and silica coatings and pendants 1 to 3 millimeters thick on underside and some sides of rock fragments; violently effervescent (40 percent calcium carbonate equivalent); neutral (pH 7.3); clear wavy boundary.
- Bkq2—17 to 26 inches; very pale brown (10YR 8/3) very gravelly loam, pale brown (10YR 6/3) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores; 30 percent gravel and 8 percent cobbles; continuous lime and silica cap less than 0.5 millimeter thick at a depth of 17 inches; lime and silica coatings and pendants 1 to 3 millimeters thick on underside and some sides of rock fragments; violently effervescent (30 percent calcium carbonate equivalent); slightly alkaline (pH 7.5); gradual wavy boundary.
- Bkq3—26 to 34 inches; very pale brown (10YR 8/3) very gravelly coarse sandy loam, pale brown (10YR 6/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; common very fine and fine and few medium roots; few very fine and fine tubular pores; 30 percent gravel and 10 percent cobbles; lime and silica coatings and pendants 1 to 3 millimeters thick on underside and some sides of rock fragments; violently effervescent (15 percent calcium carbonate equivalent); slightly alkaline (pH 7.7); gradual wavy boundary.
- 2Bkq4—34 to 60 inches; multicolored extremely gravelly loamy coarse sand; 70 percent single grain and 30 percent massive; 70 percent loose and 30 percent hard, firm, nonsticky and nonplastic; few very fine and fine roots; few very fine and fine tubular pores and common very fine irregular pores; 55 percent gravel and 15 percent cobbles; pockets and discontinuous layers of soil material weakly cemented with silica and lime; silica and lime coatings and pendants less than 1 millimeter to 3 millimeters thick on underside of some rock fragments; strongly effervescent (10 percent calcium carbonate equivalent); slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 39 degrees F

Average summer soil temperature—48 to 52 degrees F

Thickness of mollic epipedon—10 to 15 inches

Depth to sand and gravel (2Bkq horizon)—22 to 40 inches

Reaction—neutral or slightly alkaline

Particle-size control section:

Clay content—22 to 34 percent

Rock fragment content (average)—35 to 50 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Bt horizon:

Value—3 or 4 moist

Chroma—2 to 4 dry or moist

Texture—gravelly clay loam, very gravelly clay loam, or gravelly loam

Bkq horizon:

Value—7 or 8 dry, 5 or 6 moist

Rock fragment content—35 to 60 percent

Calcium carbonate equivalent—15 to 40 percent

Texture—very gravelly loam, very gravelly coarse sandy loam, very gravelly clay loam, or very gravelly sandy clay loam.

2Bkq horizon:

Rock fragment content—60 to 85 percent

Calcium carbonate equivalent—5 to 15 percent

Chillybu Series

Taxonomic classification: Loamy-skeletal, mixed, euic Terric Cryosaprists

Depth class: Very deep

Drainage class: Very poorly drained

Permeability: Moderate

Position on landscape: Flood plains

Parent material: Kind—herbaceous plants over alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 4,800 to 6,400 feet

Average annual precipitation: 10 to 14 inches

Average annual air temperature: 36 to 42 degrees F

Frost-free period: 20 to 55 days

Typical Pedon Location

Map unit in which located: Thosand-Chillybu complex, 0 to 2 percent slopes

Location in survey area: Custer County, Idaho; about 1 mile northwest of Whiskey Springs; about 1,600 feet west and 1,800 feet north of the southeast corner of sec. 21, T. 9 N., R. 22 E.; lat. 44°05'36" N., long. 113°51'11" W.

Typical Pedon

Oa1—0 to 7 inches; muck that is black (10YR 2/1) when moist on broken face and rubbed; about 70 percent fibers, 10 percent rubbed; weak medium granular structure; many very fine and fine, common medium, and few coarse roots; strongly effervescent; slightly alkaline (pH 7.4); clear smooth boundary.

Oa2—7 to 13 inches; muck that is dark brown (10YR 3/3) and very dark brown (10YR 2/2) when moist on broken face and very dark gray (10YR 3/1) when moist and rubbed; about 60 percent fibers, 10 percent rubbed; massive; many very fine and fine, common medium, and few coarse roots; strongly effervescent; slightly alkaline (pH 7.7); clear smooth boundary.

Oa3—13 to 18 inches; muck that is very dark brown (10YR 2/2) when moist on broken face and very dark gray (10YR 3/1) when moist and rubbed; about 50 percent fibers, 5 percent rubbed; massive; many very fine and common fine and medium roots; strongly effervescent; slightly alkaline (pH 7.8); clear smooth boundary.

Oa4—18 to 31 inches; muck that is dark brown (10YR 3/3) and very dark brown (10YR 2/2) when moist on broken face and very dark grayish brown (10YR 3/2) when

moist and rubbed; about 60 percent fibers, 10 percent rubbed; massive; many very fine and fine and few medium roots; slightly effervescent; slightly alkaline (pH 7.7); clear smooth boundary.

Oa5—31 to 42 inches; muck that is very dark brown (10YR 2/2) when moist on broken face and black (10YR 2/1) when moist and rubbed; about 70 percent fibers, 10 percent rubbed; massive; many very fine and fine and common medium roots; slightly effervescent; neutral (pH 6.8); clear smooth boundary.

2Cg—42 to 60 inches; greenish gray (5BG 5/1) very gravelly loam, dark greenish gray (5BG 4/1) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; many very fine and fine tubular pores; 40 percent gravel; slightly alkaline (pH 7.5).

Range in Characteristics

Profile:

Average annual soil temperature—32 to 36 degrees F

Average summer soil temperature—42 to 48 degrees F

Depth to high water table—6 inches above the surface to a depth of 6 inches below the surface in January through December

Time of year flooding occurs—April through July

Depth to gravel (2Cg horizon)—25 to 50 inches

Oa1 horizon:

Value—1 to 3 dry or moist

Chroma—1 to 3 dry or moist

Oa2, Oa3, and Oa4 horizons:

Value—2 or 3 dry or moist

Chroma—1 to 3 dry or moist

Reaction—neutral or slightly alkaline

Oa5 horizon:

Value—2 or 3 dry or moist

Chroma—1 or 2 dry or moist

Reaction—neutral to moderately alkaline

2Cg horizon:

Hue—5BG, 5Y, or 5G

Value—5 or 6 dry, 4 or 5 moist

Chroma—1 or 2 dry or moist

Texture—very gravelly loam or very gravelly sandy loam

Rock fragment content—40 to 60 percent

Reaction—slightly alkaline or moderately alkaline

Coalkiln Series

Taxonomic classification: Loamy-skeletal, carbonatic Pachic Calcicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains

Parent material: Kind—colluvium; source—limestone

Slope range: 35 to 70 percent

Elevation: 7,000 to 9,000 feet

Average annual precipitation: 20 to 25 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free period: 20 to 40 days

Typical Pedon Location

Map unit in which located: Coalkiln-Zeelnot association, 35 to 70 percent slopes

Location in survey area: Custer County, Idaho; about 21 miles east of Clayton; about 2,000 feet south and 1,500 feet west of the northeast corner of sec. 4, T. 10 N., R. 21 E.

Typical Pedon

Oi—3 inches to 2; slightly decomposed leaves, needles and twigs.

Oa—2 inches to 0; highly decomposed organic material.

A1—0 to 4 inches; dark grayish brown (10YR 4/2) stony loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and slightly plastic; few very fine and medium and many fine roots; common very fine irregular pores; 10 percent gravel, 3 percent cobbles, and 2 percent stones; slightly alkaline (pH 7.4); clear smooth boundary.

A2—4 to 17 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common fine and many coarse roots; many very fine tubular pores; 10 percent gravel and 5 percent cobbles; slightly effervescent; slightly alkaline (pH 7.5); clear irregular boundary.

Bk1—17 to 24 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many medium and common coarse roots; many very fine irregular pores; 30 percent gravel and 10 percent cobbles; common thick lime coatings on underside of rock fragments; violently effervescent (50 percent calcium carbonate equivalent); slightly alkaline (pH 7.5); gradual wavy boundary.

Bk2—24 to 37 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 4/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many medium and common coarse roots; many very fine irregular pores; 30 percent gravel and 15 percent cobbles; common thick lime coatings on underside of rock fragments; violently effervescent (50 percent calcium carbonate equivalent); slightly alkaline (pH 7.6); clear wavy boundary.

Bk3—37 to 60 inches; light yellowish brown (10YR 6/4) extremely gravelly loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common fine roots; few very fine tubular pores; 35 percent gravel and 25 percent cobbles; common thick lime coatings on underside of rock fragments; violently effervescent (55 percent calcium carbonate equivalent); slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—38 to 42 degrees F

Average summer soil temperature—43 to 47 degrees F

Thickness of mollic epipedon—16 to 30 inches

Depth to calcic horizon—16 to 30 inches

Particle-size control section:

Clay content (average)—18 to 25 percent

Rock fragment content (average)—35 to 70 percent

Calcium carbonate equivalent (average)—40 to 50 percent

A1 horizon:

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Reaction—neutral or slightly alkaline

Bk horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Texture—very gravelly loam or extremely gravelly loam

Copperbasin Series*Taxonomic classification:* Sandy-skeletal, mixed Aquic Haplocryolls*Depth class:* Very deep*Drainage class:* Somewhat poorly drained*Permeability:* Moderately rapid in the upper part and very rapid in the lower part*Position on landscape:* Flood plains and stream terraces*Parent material:* Kind—alluvium; source—mixed*Slope range:* 0 to 4 percent*Elevation:* 4,500 to 7,400 feet*Average annual precipitation:* 10 to 18 inches*Average annual air temperature:* 34 to 42 degrees F*Frost-free period:* 5 to 70 days**Typical Pedon Location***Map unit in which located:* Biglost-Copperbasin complex, 0 to 4 percent slopes*Location in survey area:* Custer County, Idaho; about 1.5 miles south of the junction of U.S. Highway 93 and Trail Creek Road; about 800 feet north and 1,600 feet west of the southeast corner of sec. 3, T. 8 N., R. 22 E.**Typical Pedon**

- A—0 to 5 inches; grayish brown (10YR 5/2) very gravelly fine sandy loam, very dark grayish brown (10YR 3/2) moist; weak medium and thick platy structure; slightly hard, friable, slightly sticky and nonplastic; many very fine and fine roots and common medium and coarse roots; common very fine and fine tubular and irregular pores; 35 percent gravel and 10 percent cobbles; slightly alkaline (pH 7.5); clear smooth boundary.
- AC—5 to 10 inches; grayish brown (10YR 5/2) extremely gravelly loamy fine sand, dark brown (10YR 3/3) moist; massive; slightly hard, very friable, nonsticky and nonplastic; many very fine and fine and common medium and coarse roots; common fine and medium irregular pores; 65 percent gravel and 20 percent cobbles; slightly alkaline (pH 7.4); clear wavy boundary.
- C1—10 to 25 inches; multicolored extremely gravelly loamy sand; common fine and medium prominent masses of iron accumulation on rock fragments, yellowish brown (10YR 5/6 and 10YR 5/8) moist; single grain; loose, nonsticky and nonplastic; common very fine, fine, medium, and coarse roots; many medium and coarse irregular pores; 50 percent gravel, 30 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.4); gradual wavy boundary.
- C2—25 to 33 inches; multicolored extremely cobbly coarse sand; common fine and medium masses of iron accumulation on rock fragments, yellowish brown (10YR 5/6 and 10YR 5/8) moist; single grain; loose, nonsticky and nonplastic; few fine and coarse irregular pores; 30 percent gravel, 40 percent cobbles, and 5 percent stones; neutral (pH 7.2); gradual wavy boundary.
- C3—33 to 60 inches; multicolored extremely gravelly coarse sand; common fine and medium prominent masses of iron accumulation on rock fragments, yellowish brown (10YR 5/6 and 10YR 5/8) moist; single grain; loose, nonsticky and nonplastic; few fine and medium roots; many medium and coarse irregular pores; 45 percent gravel, 30 percent cobbles, and 10 percent stones; neutral (pH 7.2).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 42 degrees F
 Average summer soil temperature—49 to 55 degrees F
 Thickness of mollic epipedon—10 to 15 inches
 Depth to high water table—18 to 42 inches in March through June
 Time of year flooding occurs—January through June

Particle-size control section:

Clay content (average)—2 to 10 percent
 Rock fragment content (average)—60 to 85 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist
 Texture—gravelly loam, gravelly fine sandy loam, or very gravelly fine sandy loam

AC horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist
 Texture—extremely gravelly loamy sand, very gravelly sandy loam, very gravelly loamy sand, or extremely gravelly loamy fine sand
 Rock fragment content—50 to 85 percent

C horizon:

Texture—extremely gravelly loamy sand, extremely gravelly loamy coarse sand, extremely gravelly coarse sand, extremely cobbly coarse sand, extremely cobbly loamy sand, or extremely cobbly sand
 Rock fragment content—60 to 85 percent

Cowbone Series

Taxonomic classification: Coarse-loamy, mixed, superactive, frigid Aeric Calciaquolls

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and rapid in the lower part

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 3 percent

Elevation: 3,700 to 5,000 feet

Average annual precipitation: 8 to 14 inches

Average annual air temperature: 40 to 47 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Cowbone-Tohobit complex, 0 to 3 percent slopes

Location in survey area: Lemhi County, Idaho; about 1 mile north of Ellis; about 1,300 feet north and 450 feet east of the southwest corner of sec. 24, T. 16 N., R. 20 E.

Typical Pedon

Oe—0.5 inch to 0; moderately decomposed leaves and twigs.

Ak1—0 to 4 inches; grayish brown (10YR 5/2) silt loam, very dark brown (10YR 2/2) moist; moderate medium and coarse granular structure; hard, firm, slightly sticky and slightly plastic; common very fine and few medium, coarse, and very coarse roots; many very fine and fine irregular pores; slightly effervescent (6 percent

- calcium carbonate equivalent); moderately alkaline (pH 7.9); abrupt wavy boundary.
- Ak2—4 to 10 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate medium and coarse granular structure; hard, firm, slightly sticky and slightly plastic; common very fine and few medium, coarse, and very coarse roots; many fine and very fine irregular pores; slightly effervescent (7 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.
- Bkg—10 to 16 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; common fine distinct masses of iron accumulation, yellowish brown (10YR 5/6) dry; moderate medium and fine subangular blocky structure; hard, firm, slightly sticky and slightly plastic; common very fine and few fine, medium, and coarse roots; many fine and very fine irregular pores; strongly effervescent (16 percent calcium carbonate equivalent); moderately alkaline (pH 7.9); abrupt wavy boundary.
- Bg1—16 to 24 inches; light brownish gray (10YR 6/2) silt loam, dark grayish brown (10YR 4/2) moist; common fine distinct masses of iron accumulation, yellowish brown (10YR 5/6) dry; moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine, medium, and coarse roots; many fine and very fine irregular pores; slightly alkaline (pH 7.8); abrupt wavy boundary.
- Bg2—24 to 39 inches; light brownish gray (10YR 6/2) fine sandy loam, very dark grayish brown (10YR 3/2) moist; common fine and medium distinct masses of iron accumulation, yellowish brown (10YR 5/6) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; few fine roots; many fine and very fine irregular pores; slightly alkaline (pH 7.6); clear wavy boundary.
- Cg1—39 to 46 inches; light brownish gray (10YR 6/2) very fine sandy loam, very dark grayish brown (2.5Y 3/2) moist; many fine and medium prominent masses of iron accumulation, dark yellowish brown (10YR 4/6) moist, and few medium prominent masses of iron depletion, very dusky red (2.5YR 2.5/2) moist; massive; soft, very friable, nonsticky and nonplastic; few fine roots; many fine and very fine irregular pores; slightly alkaline (pH 7.5); abrupt wavy boundary.
- Cg2—46 to 54 inches; light brownish gray (10YR 6/2) fine sandy loam, dark grayish brown (10YR 4/2) moist; many large prominent masses of iron depletion, dark grayish brown (2.5Y 4/2) moist; massive; soft, very friable, nonsticky and nonplastic; few fine and very fine roots; few very fine and fine irregular pores; slightly alkaline (pH 7.5); clear wavy boundary.
- 2Cg3—54 to 60 inches; light olive gray (5Y 6/2) very cobbly loamy very fine sand, dark olive gray (5Y 3/2) moist; many fine and medium prominent masses of iron depletion, yellowish red (5YR 4/6) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine and fine roots; common fine irregular pores; 10 percent gravel and 25 percent cobbles; slightly alkaline (pH 7.5).

Range in Characteristics

Profile:

- Average annual soil temperature—40 to 44 degrees F
 Thickness of mollic epipedon—12 to 20 inches
 Depth to very cobbly material (2Cg horizon)—45 to 60 inches
 Depth to calcic horizon—6 to 12 inches
 Depth to high water table—6 to 12 inches in March through July
 Time of year flooding occurs—April through June

Particle-size control section:

- Clay content (average)—5 to 15 percent
 Rock fragment content—0 to 10 percent

Ak horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—1 or 2 dry or moist
 Calcium carbonate equivalent—5 to 20 percent
 Reaction—slightly alkaline or moderately alkaline

Bkg horizon:

Calcium carbonate equivalent—5 to 20 percent

Bg and Cg horizons:

Hue—10YR or 2.5Y
 Value—4 to 6 dry, 2 to 4 moist
 Texture—silt loam, very fine sandy loam, or fine sandy loam
 Rock fragment content—0 to 10 percent
 Reaction—slightly alkaline or moderately alkaline

2Cg horizon:

Rock fragment content—35 to 60 percent
 Reaction—neutral or slightly alkaline

Cronks Series

Taxonomic classification: Clayey-skeletal, smectitic, frigid Calciargidic Argixerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Position on landscape: Mountains and hills

Parent material: Kind—colluvium; source—mixed

Slope range: 6 to 60 percent

Elevation: 4,500 to 7,300 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 37 to 44 degrees F

Frost-free period: 50 to 90 days

Typical Pedon Location

Map unit in which located: Cronks-Venum association, 6 to 20 percent slopes

Location in survey area: Lemhi County, Idaho; about 16 miles south of Salmon; about 1,800 feet west and 1,800 feet south of the northeast corner of sec. 28, T. 19 N., R. 21 E.

Typical Pedon

- A—0 to 10 inches; brown (10YR 5/3) very cobbly loam, very dark grayish brown (10YR 3/2) moist; weak thin platy structure parting to weak fine granular; slightly hard, very friable, slightly sticky and nonplastic; many very fine roots; many very fine and fine irregular pores; 15 percent gravel and 25 percent cobbles; slightly acid (pH 6.2); clear wavy boundary.
- Bt1—10 to 14 inches; brown (10YR 5/3) very cobbly clay, dark yellowish brown (10YR 4/4) moist; strong fine and medium angular blocky structure; hard, firm, sticky and plastic; many very fine roots; many very fine tubular pores; many distinct clay films on faces of peds and in pores; 15 percent gravel and 25 percent cobbles; neutral (pH 6.6); clear wavy boundary.
- Bt2—14 to 35 inches; brown (10YR 5/3) very cobbly clay, olive brown (2.5Y 4/3) moist; strong very fine and medium angular blocky structure; very hard, very firm, very sticky and very plastic; common very fine roots; many very fine tubular pores;

many distinct clay films on faces of peds and in pores; 15 percent gravel and 25 percent cobbles; neutral (pH 7.1); clear wavy boundary.

Bk—35 to 55 inches; pale brown (10YR 6/3) very cobbly silt loam, grayish brown (2.5Y 5/2) moist; moderate very fine angular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine tubular pores; 15 percent gravel and 30 percent cobbles; common fine and medium generally rounded and irregularly shaped carbonate filaments or threads and soft masses; strongly effervescent; slightly alkaline (pH 7.7); clear wavy boundary.

C—55 to 70 inches; pale brown (10YR 6/3) very cobbly clay loam, grayish brown (2.5Y 5/3) moist; massive; slightly hard, very friable, moderately sticky and moderately plastic; few very fine roots; many very fine and fine tubular pores; 15 percent gravel and 30 percent cobbles; slightly effervescent; moderately alkaline (pH 8.1).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 45 degrees F

Thickness of mollic epipedon—8 to 13 inches

Depth to secondary carbonates—16 to 36 inches

Particle-size control section:

Clay content—35 to 50 percent

Rock fragment content—35 to 60 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Texture—cobbly loam or very cobbly loam

Bt horizon:

Hue—2.5Y, 7.5YR, or 10YR

Value—5 or 6 dry, 4 or 5 moist

Chroma—2 to 4 dry or moist

Texture—very cobbly clay or very cobbly clay loam

Bk and C horizons:

Hue—2.5Y, 7.5YR, or 10YR

Value—5 or 6 dry or moist

Chroma—2 to 4 dry or moist

Texture—very cobbly silt loam or very cobbly clay loam

Rock fragment content—35 to 60 percent

Reaction—slightly alkaline or moderately alkaline

Cryepts

Taxonomic classification: Cryepts

Depth class: Moderately deep to bedrock to very deep

Drainage class: Well drained

Permeability: Moderate or moderately rapid

Position on landscape: Mountains

Parent material: Kind—colluvium; source—mixed

Slope range: 50 to 80 percent

Elevation: 7,500 to 10,000 feet

Average annual precipitation: 22 to 30 inches

Average annual air temperature: 35 to 39 degrees F

Frost-free period: 5 to 30 days

Representative Pedon Location

Map unit in which located: Cryepts-Rubble land-Rock outcrop complex, 50 to 80 percent slopes

Location in survey area: Lemhi County, Idaho; about 9 miles east of Carmen; about 1,300 feet north and 500 feet west of the southeast corner of sec. 15, T. 22 N., R. 23 E.

Representative Pedon

A—0 to 3 inches; very dark gray (10YR 3/1) very stony loam, black (10YR 2/1) moist; weak very fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and fine, common medium, and few coarse roots; many very fine and fine irregular pores; 15 percent gravel, 10 percent cobbles, and 10 percent stones; neutral (pH 7.0); clear smooth boundary.

Bw1—3 to 8 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (7.5YR 4/4) moist; weak fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and fine, common medium, and few coarse roots; many very fine and fine irregular pores; 40 percent gravel and 1 percent cobbles; neutral (pH 6.8); clear wavy boundary.

Bw2—8 to 18 inches; light gray (10YR 7/2) extremely gravelly sandy loam, yellowish brown (10YR 5/4) moist; single grain; loose; many very fine and fine and few medium roots; many very fine and fine irregular pores; 50 percent gravel and 10 percent cobbles; neutral (pH 6.8); gradual wavy boundary.

BC—18 to 43 inches; light brownish gray (10YR 6/2) extremely gravelly loamy sand, brown (10YR 5/3) moist; single grain; loose; many very fine and fine and common coarse roots; common medium and coarse irregular pores; 60 percent gravel and 5 percent cobbles; neutral (pH 7.0); clear wavy boundary.

C—43 to 60 inches; light yellowish brown (10YR 6/4) extremely stony very fine sandy loam, yellowish brown (10YR 5/4) moist; single grain; loose; many very fine and fine and common coarse roots; common medium and coarse irregular pores; 10 percent gravel, 10 percent cobbles, and 55 percent stones; 25 percent of horizon is fragmented with larger roots in cracks; neutral (pH 7.2).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 42 degrees F

Average summer soil temperature—45 to 55 degrees F

Depth to bedrock—20 to 72 inches

Particle-size control section:

Clay content—5 to 20 percent

Rock fragment content—20 to 75 percent

A horizon:

Value—3 to 6 dry, 2 to 4 moist

Chroma—1 to 3 dry or moist

Bw horizon:

Hue—7.5YR or 10YR

Value—5 to 7 dry, 3 to 6 moist

Chroma—2 to 5 dry, 4 to 6 moist

Texture—gravelly loam or very gravelly loam

Rock fragment content—20 to 60 percent

BC horizon:

Value—6 or 7 dry, 4 to 6 moist

Chroma—2 to 4 dry, 3 to 6 moist

Texture—extremely gravelly sandy loam or extremely gravelly loamy sand
 Rock fragment content—60 to 80 percent

C horizon (where present):

Value—6 or 7 dry, 5 or 6 moist

Chroma—3 or 4 dry or moist

Rock fragment content—60 to 90 percent

Cryolls

Taxonomic classification: Cryolls

Depth class: Moderately deep to bedrock to very deep

Drainage class: Well drained

Permeability: Moderately slow to rapid

Position on landscape: Mountains

Parent material: Kind—colluvium; source—mixed

Slope range: 20 to 80 percent

Elevation: 6,000 to 10,390 feet

Average annual precipitation: 13 to 30 inches

Average annual air temperature: 33 to 39 degrees F

Frost-free period: 5 to 50 days

Representative Pedon Location

Map unit in which located: Cryolls-Rubble land-Rock outcrop complex, 50 to 80 percent slopes

Location in survey area: Custer County, Idaho; about 7 miles northwest of Clayton; about 200 feet south and 1,700 feet west of the northeast corner of sec. 11, T. 11 N., R. 16 E.

Representative Pedon

Oi—1 inch to 0; slightly decomposed needles, twigs, and grass.

A—0 to 3 inches; dark grayish brown (10YR 4/2) stony loam, very dark brown (10YR 2/2) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine irregular pores and common very fine tubular pores; 5 percent gravel, 15 percent cobbles, and 10 percent stones; neutral (pH 6.8); clear wavy boundary.

Bw—3 to 12 inches; yellowish brown (10YR 5/4) extremely gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots and few medium and coarse roots; common very fine irregular and tubular pores; 40 percent gravel and 30 percent cobbles; neutral (pH 6.8); clear wavy boundary.

BC—12 to 33 inches; brown (10YR 5/3) extremely gravelly loam, dark brown (10YR 4/3) moist; weak very fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few medium roots; common very fine irregular and tubular pores; 40 percent gravel and 30 percent cobbles; neutral (pH 7.0); gradual wavy boundary.

C—33 to 60 inches; brown (10YR 5/3) extremely gravelly loam, dark brown (10YR 4/3) moist; slightly hard, friable, nonsticky and nonplastic; few very fine roots; common very fine irregular and tubular pores; 45 percent gravel and 35 percent cobbles; neutral (pH 7.2).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 41 degrees F

Average summer soil temperature—46 to 55 degrees F
 Thickness of mollic epipedon—7 to 15 inches
 Depth to bedrock—20 to 72 inches

Particle-size control section:

Clay content—5 to 35 percent
 Rock fragment content—55 to 95 percent

A horizon:

Value—2 or 3 moist
 Chroma—1 to 3 dry or moist

Bw horizon:

Chroma—3 or 4 dry, 2 or 3 moist
 Texture—very gravelly sandy loam, extremely gravelly loam, or extremely cobbly clay loam

BC horizon:

Value—5 or 6 dry, 3 or 4 moist
 Chroma—3 or 4 dry or moist
 Texture—extremely cobbly loam, extremely cobbly loamy coarse sand, or extremely gravelly loam
 Rock fragment content—70 to 95 percent

C horizon:

Value—5 or 6 dry
 Texture—extremely gravelly loam or extremely cobbly loamy coarse sand
 Rock fragment content—75 to 95 percent

Custco Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Calcic Argixerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Position on landscape: Mountains, hills, and fan terraces

Parent material: Kind—colluvium; source—quartzite or extrusive igneous rock

Slope range: 8 to 50 percent

Elevation: 4,300 to 6,500 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 37 to 43 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Dacont-Custco association, 20 to 50 percent slopes

Location in survey area: Lemhi County, Idaho; about 15 miles north of Ellis; about 500 feet south and 900 feet west of the northeast corner of sec. 12, T. 18 N., R. 20 E.; lat. 44°54'37" N., long. 114°02'20" W.

Typical Pedon

A—0 to 4 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate very fine and fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine irregular pores and common very fine and fine tubular pores; 25 percent gravel; neutral (pH 7.2); clear wavy boundary.

Bt1—4 to 10 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3)

moist; moderate very fine and fine subangular blocky structure; slightly hard, firm, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; common very fine irregular pores and common very fine and fine tubular pores; common faint and few distinct clay films on faces of peds and in pores; 45 percent gravel; neutral (pH 7.2); clear wavy boundary.

Bt2—10 to 17 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 4/3) moist; moderate very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; many very fine irregular pores and common very fine and fine tubular pores; few faint clay films on faces of peds and in pores; 50 percent gravel; neutral (pH 7.2); gradual wavy boundary.

Bk1—17 to 40 inches; pale brown (10YR 6/3) extremely gravelly sandy loam, brown (10YR 5/3) moist; massive; soft, very friable, slightly sticky and nonplastic; common very fine and fine and few medium roots; many very fine and fine irregular pores and common fine tubular pores; 55 percent gravel, 10 percent cobbles, and 1 percent stones; lime and silica layers 1 to 3 millimeters thick on underside of rock fragments; about 20 percent soft secondary lime in matrix and in pores; violently effervescent; moderately alkaline (pH 8.2); gradual wavy boundary.

Bk2—40 to 60 inches; pale brown (10YR 6/3) extremely gravelly loamy sand, brown (10YR 4/3) moist; single grain; loose; few very fine roots; many very fine irregular pores; 40 percent gravel, 20 percent cobbles, and 5 percent stones; strongly effervescent; moderately alkaline (pH 8.2).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 45 degrees F

Thickness of mollic epipedon—9 to 15 inches

Depth to secondary carbonates—15 to 35 inches

Reaction—neutral to moderately alkaline

Particle-size control section:

Clay content—18 to 27 percent

Rock fragment content—35 to 70 percent

A horizon:

Value—2 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Texture—gravelly loam, cobbly loam, or very gravelly loam

Bt horizon:

Value—4 or 5 dry, 3 or 4 moist

Chroma—3 to 5 dry or moist

Rock fragment content—35 to 70 percent

Texture—very gravelly loam or extremely gravelly loam

Bk horizon:

Value—6 or 7 dry, 4 to 6 moist

Chroma—3 to 5 dry or moist

Texture—very gravelly loam, extremely gravelly sandy loam, or extremely gravelly loamy sand

Rock fragment content—40 to 75 percent

Dacont Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Calciargidic Argixerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains, hills, and fan terraces

Parent material: Kind—colluvium; source—extrusive igneous rock

Slope range: 4 to 60 percent

Elevation: 5,000 to 7,500 feet

Average annual precipitation: 11 to 16 inches

Average annual air temperature: 37 to 45 degrees F

Frost-free period: 45 to 90 days

Typical Pedon Location

Map unit in which located: Dawtonia-Dacont association, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 2.5 miles west of Ellis;
about 880 feet west and 60 feet north of the southeast corner of sec. 28,
T. 16 N., R. 20 E.

Typical Pedon

- A—0 to 3 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate very fine and fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine irregular pores and few very fine and fine tubular pores; 30 percent gravel; neutral (pH 7.2); clear wavy boundary.
- BA—3 to 6 inches; yellowish brown (10YR 5/4) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure parting to moderate very fine and fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine irregular pores and few very fine and fine tubular pores; 35 percent gravel; slightly alkaline (pH 7.4); clear wavy boundary.
- Bt1—6 to 12 inches; yellowish brown (10YR 5/4) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; common very fine irregular pores and common very fine and fine tubular pores; few faint clay films on faces of peds and in pores; 50 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.6); clear wavy boundary.
- Bt2—12 to 21 inches; yellowish brown (10YR 5/4) very gravelly loam, brown (10YR 4/3) moist; moderate very fine and fine subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common very fine and fine and few medium roots; common very fine irregular pores and common very fine and fine tubular pores; few faint clay films on faces of peds and in pores; 50 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.8); gradual wavy boundary.
- Bt3—21 to 28 inches; yellowish brown (10YR 5/4) very gravelly loam, brown (10YR 4/3) moist; weak very fine and fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine irregular pores and few very fine and fine tubular pores; few faint clay films on faces of peds and in pores; 50 percent gravel and 5 percent cobbles; moderately alkaline (pH 8.0); clear wavy boundary.
- 2Bk1—28 to 41 inches; brown (7.5YR 5/4) extremely gravelly loam, dark brown (7.5YR 4/3) moist; weak very fine and fine subangular blocky structure; multicolored pockets that have hue of 5YR to 10YR; soft, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; common very fine irregular pores and few very fine and fine tubular pores; 60 percent gravel and

25 percent cobbles; lime coatings on underside and some sides of rock fragments; 20 percent soft secondary lime in old root channels; strongly effervescent; moderately alkaline (pH 8.4); gradual wavy boundary.

2Bk2—41 to 51 inches; brown (7.5YR 5/4) extremely cobbly loam, dark brown (7.5YR 4/3) moist; massive; soft, very friable, slightly sticky and slightly plastic; multicolored pockets that have hue of 5YR to 10YR; common very fine roots; many very fine irregular pores; 35 percent gravel and 35 percent cobbles; lime coatings on underside of rock fragments; 20 percent soft secondary lime in old root channels; strongly effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.

2Bk3—51 to 60 inches; pale brown (10YR 6/3) extremely cobbly loam, dark brown (10YR 3/3) moist; massive; soft, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine irregular pores; 35 percent gravel and 35 percent cobbles; thin lime layers on underside of rock fragments; slightly effervescent; moderately alkaline (pH 7.9).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 45 degrees F

Thickness of mollic epipedon—8 to 16 inches

Depth to calcic horizon—10 to 35 inches

Particle-size control section:

Clay content—20 to 32 percent

Rock fragment content—35 to 60 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Texture—gravelly loam, very gravelly loam, or very cobbly loam

Bt horizon:

Hue—5YR to 10YR

Value—4 or 5 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Texture—very gravelly loam or very gravelly clay loam

2Bk horizon:

Hue—7.5YR or 10YR

Value—5 to 8 dry, 3 to 6 moist

Chroma—2 to 4 dry or moist

Texture—very gravelly loam, extremely gravelly loam, very cobbly loam, extremely cobbly loam, or very gravelly sandy loam

Darlington Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Calcic Haploxerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Stream terraces and fan terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 4 percent

Elevation: 5,200 to 5,600 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 37 to 45 degrees F

Frost-free period: 65 to 90 days

Typical Pedon Location

Map unit in which located: Darlington-Lesbut complex, 1 to 4 percent slopes

Location in survey area: Butte County, Idaho; about 1.5 miles south of the Moore Diversion; about 1,600 feet west and 720 feet south of the northeast corner of sec. 16, T. 6 N., R. 25 E.

Typical Pedon

Ap—0 to 7 inches; grayish brown (10YR 5/2) very gravelly loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; few very fine tubular pores; 35 percent gravel and 2 percent cobbles; neutral (pH 7.0); clear smooth boundary.

A—7 to 14 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine tubular pores; 35 percent gravel and 2 percent cobbles; neutral (pH 7.2); clear wavy boundary.

Bt—14 to 21 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 4/3) moist; weak medium prismatic structure parting to moderate fine subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine tubular pores; few faint clay films on faces of peds; 30 percent gravel and 2 percent cobbles; neutral (pH 7.3); clear wavy boundary.

Bw—21 to 33 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, very friable, nonsticky and slightly plastic; common very fine and few medium and coarse roots; common very fine tubular pores; 35 percent gravel and 2 percent cobbles; slightly alkaline (pH 7.4); gradual wavy boundary.

2Bk1—33 to 44 inches; pale brown (10YR 6/3) extremely gravelly loamy sand, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; few very fine and fine roots; few very fine tubular pores; 55 percent gravel and 5 percent cobbles; thin coatings of lime on underside of rock fragments; slightly alkaline (pH 7.5); clear wavy boundary.

2Bk2—44 to 60 inches; dark grayish brown (10YR 4/2) extremely gravelly loamy sand, very dark brown (10YR 2/2) moist; single grain; loose, nonsticky and nonplastic; few very fine roots; few very fine tubular pores; 55 percent gravel and 10 percent cobbles; thin coatings of lime on underside of rock fragments; slightly alkaline (pH 7.6).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Thickness of mollic epipedon—11 to 15 inches

Reaction—neutral or slightly alkaline

Depth to sand and gravel (2Bk horizon) and secondary carbonates—25 to 35 inches

Particle-size control section:

Clay content (average)—15 to 22 percent

Rock fragment content—35 to 60 percent

Ap horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Bt horizon:

Value—4 to 6 dry, 3 or 4 moist
 Chroma—3 or 4 dry or moist
 Texture—gravelly loam or very gravelly loam
 Rock fragment content—30 to 50 percent

Bw horizon:

Hue—2.5Y or 10YR
 Value—3 or 4 moist
 Texture—gravelly loam, very gravelly sandy loam, or very gravelly loam
 Rock fragment content—25 to 50 percent

2Bk horizon:

Value—4 to 6 dry, 2 to 4 moist
 Chroma—2 or 3 dry or moist
 Texture—extremely gravelly loamy sand or extremely gravelly sand

Dawtonia Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Xeric Calcic Argids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Mountains, hills, and fan terraces

Parent material: Kind—alluvium and colluvium; source—mixed

Slope range: 1 to 55 percent

Elevation: 4,000 to 7,200 feet

Average annual precipitation: 6 to 13 inches

Average annual air temperature: 37 to 46 degrees F

Frost-free period: 60 to 100 days

Typical Pedon Location

Map unit in which located: Dawtonia-Dacont association, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 1.9 miles southwest of the Spar Canyon turnoff from U.S. Highway 93; about 1,920 feet north and 1,375 feet west of the southeast corner of sec. 15, T. 11 N., R. 20 E.

Typical Pedon

A—0 to 4 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, fine, and medium roots; 40 percent gravel; neutral (pH 7.2); clear wavy boundary.

Bt—4 to 12 inches; yellowish brown (10YR 5/4) very gravelly loam, dark brown (10YR 4/3) moist; moderate fine and very fine subangular blocky structure; hard, friable, sticky and plastic; many very fine, fine, and medium roots; many very fine tubular pores; few faint clay films on faces of peds and in pores; 40 percent gravel and 10 percent cobbles; slightly alkaline (pH 7.4); clear wavy boundary.

Bk—12 to 24 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 5/3) moist; weak fine and very fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine and medium roots; many very fine tubular pores; 40 percent gravel and 10 percent cobbles; violently effervescent (20 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.

Bkq1—24 to 37 inches; pale brown (10YR 6/3) extremely gravelly loam, brown (10YR

5/3) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine tubular pores; 50 percent gravel and 10 percent cobbles; common thin lime and silica coatings and pendants on underside of rock fragments; strongly effervescent (12 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.

Bkq2—37 to 60 inches; light yellowish brown (10YR 6/4) extremely gravelly loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine and fine roots; many very fine irregular pores; 50 percent gravel and 10 percent cobbles; slightly effervescent (2 percent calcium carbonate equivalent); common thin lime and silica coatings and pendants on underside of rock fragments; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Average annual soil temperature—38 to 44 degrees F

Depth to secondary carbonates—10 to 18 inches

Particle-size control section:

Clay content (average)—25 to 33 percent

Rock fragment content (average)—35 to 60 percent

A horizon:

Hue—7.5YR or 10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Texture—gravelly loam or very gravelly loam

Bt horizon:

Hue—7.5YR or 10YR

Value—4 to 6 dry, 3 to 5 moist

Chroma—3 to 6 dry or moist

Texture—very gravelly loam, very gravelly clay loam, or extremely gravelly clay loam

Clay content—25 to 33 percent

Bk and Bkq horizons:

Hue—2.5Y, 7.5YR, or 10YR

Value—5 to 7 dry, 4 to 6 moist

Chroma—2 to 4 dry or moist

Rock fragment content—50 to 75 percent

Reaction—slightly alkaline or moderately alkaline

Texture—extremely gravelly loam or extremely gravelly sandy loam

Derwell Series

Taxonomic classification: Coarse-loamy, mixed, superactive, frigid Durinodic Xeric
Haplocalcids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 6 percent

Elevation: 5,000 to 6,800 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 44 degrees F

Frost-free period: 50 to 80 days

Typical Pedon Location

Map unit in which located: Derwell-Zer-Packmo complex, 1 to 20 percent slopes

Location in survey area: Custer County, Idaho; about 2 miles west of Chilly Butte; about 1,300 feet north and 1,200 feet west of the southeast corner of sec. 34, T. 9 N., R. 21 E.; lat. 44°03'47" N., long. 113°57'15" W.

Typical Pedon

- A—0 to 2 inches; pale brown (10YR 6/3) gravelly very fine sandy loam, brown (10YR 4/3) moist; moderate medium platy structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 15 percent gravel; strongly effervescent; slightly alkaline (pH 7.8); clear smooth boundary.
- Bk1—2 to 9 inches; light yellowish brown (10YR 6/4) very fine sandy loam, dark yellowish brown (10YR 4/4) moist; moderate fine and medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 10 percent gravel; few lime coatings less than 1 millimeter thick on underside of some rock fragments; violently effervescent; moderately alkaline (pH 7.9); clear smooth boundary.
- Bk2—9 to 15 inches; very pale brown (10YR 7/3) sandy loam, light yellowish brown (10YR 6/4) moist; moderate medium platy structure; hard, firm, nonsticky and nonplastic; common fine and few medium roots (root mats on plate tops); common very fine and fine irregular pores; 10 percent gravel; few lime coatings less than 1 millimeter thick on underside of some rock fragments; violently effervescent; slightly alkaline (pH 7.7); clear wavy boundary.
- Bkq1—15 to 27 inches; very pale brown (10YR 7/3) very gravelly sandy loam, light yellowish brown (10YR 6/4) moist; moderate thick platy structure; hard, dominantly brittle or firm with 10 percent friable, nonsticky and nonplastic; few fine roots in fractures; common very fine and fine irregular pores; 25 percent strongly cemented durinodes; krotovinas 4 to 6 inches in diameter filled with root mats and finer soil material; 10 percent gravel; violently effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.
- Bkq2—27 to 38 inches; light gray (10YR 7/2) gravelly fine sandy loam, light yellowish brown (10YR 6/4) moist; massive; slightly hard, friable, nonsticky and nonplastic; common very fine and fine irregular pores; 15 percent gravel; few lime coatings less than 1 millimeter thick on underside of some rock fragments; 10 percent strongly cemented durinodes; violently effervescent; neutral (pH 7.3); gradual wavy boundary.
- Bkq3—38 to 45 inches; very pale brown (10YR 7/3) gravelly fine sandy loam, light yellowish brown (10YR 6/4) moist; massive; slightly hard, friable, nonsticky and nonplastic; many very fine and fine irregular pores; 30 percent gravel; lime and minor silica coatings 1 millimeter thick on underside of rock fragments; violently effervescent; slightly alkaline (pH 7.4); gradual wavy boundary.
- 2Bkq4—45 to 60 inches; multicolored extremely gravelly sand; single grain; loose, nonsticky and nonplastic; many fine irregular pores; 65 percent gravel; lime and minor silica coatings 1 millimeter thick on underside of rock fragments; krotovinas 4 to 6 inches in diameter filled with root mats and finer soil material; strongly effervescent; slightly alkaline (pH 7.7).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Depth to durinodes—10 to 20 inches

Depth to calcic horizon—1 to 4 inches

Depth to sand and gravel (2Bkq horizon)—40 to 60 inches

Particle-size control section:

Clay content—8 to 15 percent
 Rock fragment content (average)—10 to 30 percent
 Calcium carbonate equivalent—20 to 40 percent

A horizon:

Value—3 or 4 moist

Bk horizon:

Value—6 or 7 dry, 4 to 6 moist
 Chroma—3 or 4 dry
 Texture—very fine sandy loam or sandy loam
 Reaction—slightly alkaline or moderately alkaline

Bkq horizon:

Value—6 or 7 dry, 5 to 7 moist
 Chroma—2 or 3 dry, 3 or 4 moist
 Texture—gravelly fine sandy loam or very gravelly sandy loam
 Rock fragment content—10 to 50 percent
 Durinode content—20 to 35 percent in the upper part

2Bkq horizon:

Value—6 or 7 dry, 4 to 6 moist
 Chroma—3 or 4 dry or moist
 Rock fragment content—60 to 80 percent

Dickeypeak Series

Taxonomic classification: Coarse-loamy, mixed, superactive, frigid Aquic Haplocalcids

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 2 to 6 percent

Elevation: 4,800 to 6,600 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 36 to 39 degrees F

Frost-free period: 35 to 75 days

Typical Pedon Location

Map unit in which located: Dickeypeak-Bigrant complex, 2 to 6 percent slopes

Location in survey area: Custer County, Idaho; about 7 miles southeast of Willow Creek Summit; about 400 feet south and 1,200 feet east of the northwest corner of sec. 12, T. 9 N., R. 21 E.; lat. 44°07'53" N., long. 113°55'59" W.

Typical Pedon

Akn—0 to 3 inches; grayish brown (10YR 5/2) silty clay loam, dark grayish brown (10YR 4/2) moist; moderate medium platy structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and common medium roots; many very fine tubular and irregular pores; violently effervescent (32 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); gradual smooth boundary.

Bk1—3 to 9 inches; light gray (10YR 7/1) clay loam, light brownish gray (10YR 6/2) moist; moderate fine subangular blocky structure; slightly hard, friable, moderately

- sticky and moderately plastic; common fine and few medium roots; many very fine tubular pores; violently effervescent (44 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); gradual smooth boundary.
- Bk2—9 to 21 inches; light gray (10YR 7/2) clay loam, pale brown (10YR 6/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common fine and medium roots; common very fine tubular pores; violently effervescent (43 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); gradual smooth boundary.
- Bkg1—21 to 32 inches; light gray (2.5Y 7/2) loam, grayish brown (2.5Y 5/2) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common fine and medium roots; common very fine tubular pores; 1 percent fine gravel; strongly effervescent (37 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); gradual smooth boundary.
- Bkg2—32 to 45 inches; light gray (2.5Y 7/2) loam, olive brown (2.5Y 4/4) moist; many medium distinct masses of iron depletion, dark grayish brown (2.5Y 4/2) moist; massive; hard, friable, slightly sticky and slightly plastic; few fine and medium roots; many very fine and common fine tubular pores; 5 percent fine gravel; strongly effervescent (29 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); gradual smooth boundary.
- Bkg3—45 to 52 inches; pale yellow (5Y 7/2) fine sandy loam, olive (5Y 5/3) moist; massive; hard, friable, slightly sticky and slightly plastic; few fine and medium roots; many fine and medium irregular pores; strongly effervescent (21 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.
- BCg—52 to 60 inches; light gray (5Y 7/2) gravelly fine sandy loam, olive gray (5Y 5/2) moist; massive; hard, friable, slightly sticky and slightly plastic; few fine roots; many very fine and fine irregular pores; 20 percent gravel; slightly effervescent; moderately alkaline (pH 8.1); abrupt wavy boundary.
- 2C—60 to 65 inches; greenish gray (5GY 6/1) very gravelly loamy coarse sand, greenish gray (5GY 5/1) moist; single grain; loose, nonsticky and nonplastic; many very fine and fine irregular pores; 50 percent gravel; slightly effervescent; moderately alkaline (pH 8.1).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 41 degrees F
 Depth to high water table—18 to 42 inches in March through August
 Depth to sand and gravel (2C horizon)—60 inches or more
 Depth to calcic horizon—5 to 10 inches

Particle-size control section:

Clay content (average)—20 to 30 percent
 Clay content (carbonate free)—10 to 18 percent
 Rock fragment content—0 to 10 percent

Akn horizon:

Value—5 to 7 dry, 4 or 5 moist
 Chroma—1 to 3 dry, 2 to 4 moist
 Calcium carbonate equivalent—20 to 40 percent
 Reaction—moderately alkaline or strongly alkaline
 Sodium adsorption ratio—15 to 25

Bk horizon:

Chroma—1 to 3 dry, 2 to 4 moist
 Gravel content—0 to 10 percent
 Calcium carbonate equivalent—20 to 50 percent

Bkg horizon:

Hue—2.5Y, 5Y, or 10YR
 Value—6 to 8 dry, 4 to 6 moist
 Chroma—1 to 3 dry, 1 to 4 moist
 Texture—loam or fine sandy loam
 Rock fragment content—0 to 10 percent
 Calcium carbonate equivalent—20 to 50 percent

BCg horizon:

Hue—2.5Y, 5Y, or 10YR
 Chroma—1 to 4 dry, 1 or 2 moist
 Texture—gravelly fine sandy loam or very gravelly fine sandy loam
 Rock fragment content—15 to 35 percent
 Calcium carbonate equivalent—0 to 20 percent

2C horizon:

Hue—5Y or 5GY
 Value—6 or 7 dry, 5 or 6 moist
 Rock fragment content—35 to 60 percent
 Calcium carbonate equivalent—0 to 10 percent

Donkehill Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Lithic Argicryolls

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains and hills

Parent material: Kind—residuum and colluvium; source—extrusive igneous rock

Slope range: 8 to 50 percent

Elevation: 6,500 to 9,000 feet

Average annual precipitation: 13 to 22 inches

Average annual air temperature: 34 to 38 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Donkehill very gravelly loam, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 21 miles southeast of Patterson; about 1,560 feet north and 100 feet west of the southeast corner of sec. 34, T. 11 N., R. 24 E.; lat. 44°14'08" N., long. 113°34'40" W.

Typical Pedon

A—0 to 3 inches; brown (10YR 5/3) very gravelly loam, dark brown (7.5YR 3/2) moist; weak very fine granular structure; slightly hard, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine tubular pores; 40 percent gravel; slightly alkaline (pH 7.5); clear wavy boundary.

Bt—3 to 11 inches; brown (10YR 5/3) very gravelly loam, dark brown (7.5YR 3/2) moist; weak very fine subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine tubular pores; few faint clay films on faces of peds; 40 percent gravel; slightly alkaline (pH 7.6); clear wavy boundary.

Btk—11 to 13 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 4/3) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky and nonplastic; common very fine and fine roots; many very fine

tubular pores; few thin clay films on faces of peds; 50 percent gravel; lime coatings on underside of gravel; slightly alkaline (pH 7.8); abrupt smooth boundary.
 BCK—13 to 16 inches; pale brown (10YR 6/3) extremely gravelly sandy loam, dark brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine and fine roots in cracks; 85 percent gravel; lime coatings on underside of gravel with some lime pendants; slightly alkaline (pH 7.5); abrupt smooth boundary.
 R—16 to 20 inches; indurated bedrock; strongly effervescent in cracks.

Range in Characteristics

Profile:

Average annual soil temperature—36 to 40 degrees F
 Average summer soil temperature—46 to 50 degrees F
 Thickness of mollic epipedon—7 to 12 inches
 Depth to bedrock—11 to 19 inches
 Reaction—slightly alkaline or moderately alkaline

Particle-size control section:

Clay content—16 to 24 percent
 Rock fragment content—35 to 60 percent

A horizon:

Hue—7.5YR or 10YR
 Value—3 to 5 dry
 Chroma—2 or 3 dry or moist

Bt and Btk horizons:

Hue—7.5YR or 10YR
 Value—4 to 6 dry, 3 or 4 moist
 Chroma—2 to 4 dry, 3 or 4 moist
 Texture—very gravelly loam or extremely cobbly loam

BCK horizon:

Hue—7.5YR or 10YR
 Value—3 or 4 moist
 Chroma—2 to 4 dry or moist
 Texture—extremely gravelly loam or extremely gravelly sandy loam
 Rock fragment content—60 to 85 percent

Drage Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Calcic Argixerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Fan terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 2 to 15 percent

Elevation: 5,800 to 6,800 feet

Average annual precipitation: 12 to 16 inches

Average annual air temperature: 40 to 45 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Justesen-Drage complex, 2 to 15 percent slopes

Location in survey area: Custer County, Idaho; about 13 miles southwest of Darlington; about 1,400 feet south and 1,400 feet west of the northeast corner of sec. 5, T. 4 N., R. 24 E.

Typical Pedon

- A1—0 to 3 inches, dark grayish brown (10YR 4/2) gravelly loam, very dark brown (10YR 2/2) moist; moderate medium platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine vesicular pores; 15 percent gravel; neutral (pH 7.2); clear smooth boundary.
- A2—3 to 10 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate very fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; few very fine tubular pores; 30 percent gravel; slightly alkaline (pH 7.4); clear wavy boundary.
- Bt1—10 to 20 inches; brown (10YR 5/3) very gravelly clay loam, dark yellowish brown (10YR 3/4) moist; moderate fine subangular blocky structure; hard, firm, moderately sticky and moderately plastic; common very fine and fine and few medium roots; common very fine tubular pores; few faint clay films on faces of peds and in pores; 30 percent gravel, 5 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.6); gradual wavy boundary.
- Bt2—20 to 40 inches; yellowish brown (10YR 5/4) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; strong medium subangular blocky structure; hard, firm, moderately sticky and moderately plastic, common very fine and few fine and medium roots; few very fine tubular and irregular pores; common faint clay films on faces of peds and in pores; 40 percent gravel, 10 percent cobbles, and 1 percent stones; slightly alkaline (pH 7.8); clear smooth boundary.
- Bkq1—40 to 55 inches; white (10YR 8/2) extremely gravelly loam, light brownish gray (10YR 6/2) moist; massive; hard, firm, slightly sticky and slightly plastic; few very fine and medium roots; common very fine tubular pores; 40 percent gravel, 20 percent cobbles, and 1 percent stones; lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.1); clear wavy boundary.
- Bkq2—55 to 60 inches; light brownish gray (10YR 6/2) extremely gravelly sandy loam, dark grayish brown (10YR 4/2) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine roots; few very fine tubular pores; 55 percent gravel, 10 percent cobbles, and 2 percent stones; lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; strongly effervescent; moderately alkaline (pH 8.2).

Range in Characteristics

Profile:

Average annual soil temperature—42 to 46 degrees F
 Thickness of mollic epipedon—10 to 17 inches
 Depth to secondary carbonates—25 to 43 inches

Particle-size control section:

Clay content—28 to 32 percent
 Rock fragment content—35 to 55 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist
 Rock fragment content—15 to 30 percent
 Reaction—neutral or slightly alkaline

Bt horizon:

Value—3 or 4 moist

Chroma—3 or 4 dry

Bkq horizon:

Rock fragment content—60 to 75 percent

Texture—extremely gravelly loam or extremely gravelly sandy loam

Reaction—slightly alkaline or moderately alkaline

Escarlo Series*Taxonomic classification:* Fine-loamy, carbonatic Xeric Calcicryolls*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Moderately slow*Position on landscape:* Hills*Parent material:* Kind—uplifted lacustrine sediment and alluvial deposits; source—mixed*Slope range:* 4 to 30 percent*Elevation:* 6,500 to 7,500 feet*Average annual precipitation:* 11 to 16 inches*Average annual air temperature:* 35 to 40 degrees F*Frost-free period:* 30 to 60 days**Typical Pedon Location***Map unit in which located:* Escarlo-Heathcoat complex, 4 to 30 percent slopes*Location in survey area:* Lemhi County, Idaho; about 22 miles southeast of Leadore; about 2,400 feet north and 700 feet west of the southeast corner of sec. 33, T. 13 N., R. 28 E.; lat. 44°24'55" N., long. 113°07'04" W.**Typical Pedon**

A1—0 to 3 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; weak very fine and fine granular structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine irregular pores; 15 percent gravel; slightly effervescent; slightly alkaline (pH 7.6); abrupt smooth boundary.

A2—3 to 7 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; weak fine and medium subangular blocky structure parting to moderate very fine and fine granular; soft, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; many very fine irregular pores; 5 percent gravel; slightly effervescent; moderately alkaline (pH 8.0); clear smooth boundary.

AB—7 to 11 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, moderately sticky and slightly plastic; common very fine and few fine and medium roots; many very fine and fine irregular pores; 10 percent gravel; strongly effervescent; moderately alkaline (pH 8.1); clear smooth boundary.

2Bk1—11 to 16 inches; pale brown (10YR 6/3) gravelly clay loam, brown (10YR 5/3) moist; weak very fine subangular blocky structure; soft, very friable, moderately sticky and slightly plastic; common very fine and fine roots; many very fine irregular pores; 25 percent fine gravel; violently effervescent (40 percent calcium carbonate equivalent); moderately alkaline (pH 8.1); clear smooth boundary.

2Bk2—16 to 32 inches; white (10YR 8/2) gravelly clay, very pale brown (10YR 7/3)

moist; weak very fine and fine subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; few very fine and fine roots; common very fine irregular pores; 15 percent fine gravel; violently effervescent (50 percent calcium carbonate equivalent); strongly alkaline (pH 8.5); clear smooth boundary.

2Bk3—32 to 48 inches; light gray (10YR 7/2) gravelly clay loam, brown (10YR 5/3) moist; strong very fine and fine subangular blocky structure; hard, firm, moderately sticky and moderately plastic; few very fine roots; common very fine and few fine irregular pores; 25 percent fine gravel and 5 percent cobbles; violently effervescent (50 percent calcium carbonate equivalent); moderately alkaline (pH 8.1); clear smooth boundary.

2Bk4—48 to 60 inches; white (10YR 8/2) gravelly clay, brown (10YR 5/3) moist; strong very thin lamella; hard, firm, moderately sticky and moderately plastic; common very fine irregular pores; 10 percent gravel and 5 percent cobbles; violently effervescent (63 percent calcium carbonate equivalent); 2 percent shell fragments; moderately alkaline (pH 7.9).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F

Average summer soil temperature—55 to 58 degrees F

Thickness of mollic epipedon—8 to 13 inches

Depth to calcic horizon—8 to 13 inches

Reaction—slightly alkaline to strongly alkaline

Particle-size control section:

Carbonate-free clay content—18 to 28 percent

Clay content (average)—34 to 45 percent

Rock fragment content (average)—15 to 35 percent

Calcium carbonate equivalent—40 to 85 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Texture—silt loam or gravelly loam

Volcanic ash content—30 to 40 percent

2Bk horizon:

Value—5 to 7 moist

Chroma—2 or 3 dry or moist

Texture—gravelly clay loam, gravelly clay, very gravelly sandy clay loam, or gravelly sandy clay loam

Rock fragment content—5 to 45 percent

Ezbin Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Xeric Argicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Mountains

Parent material: Kind—colluvium; source—extrusive igneous rock

Slope range: 20 to 50 percent

Elevation: 6,500 to 8,500 feet

Average annual precipitation: 15 to 20 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free period: 20 to 40 days

Typical Pedon Location

Map unit in which located: Ezbin-Zeebar-Nielsen complex, 20 to 50 percent slopes

Location in survey area: Lemhi County, Idaho; about 13 miles north of Ellis; about 2,460 feet west and 1,430 feet north of the southeast corner of sec. 19, T. 18 N., R. 21 E.

Typical Pedon

Oi—2.5 to 1.5 inches; slightly decomposed needles, twigs, leaves, and grass.

Oe—1.5 inches to 0; moderately decomposed needles, twigs, leaves, and grass.

A—0 to 11 inches; brown (10YR 4/3) very stony loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure parting to moderate very fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine, medium, and coarse roots; many very fine and fine irregular pores; 10 percent gravel, 15 percent cobbles, and 10 percent stones; neutral (pH 6.8); clear wavy boundary.

Bt1—11 to 20 inches; yellowish brown (10YR 5/4) very gravelly clay loam, dark yellowish brown (10YR 3/4) moist; weak fine and medium prismatic structure parting to moderate very fine and fine subangular blocky; slightly hard, firm, moderately sticky and moderately plastic; common very fine and fine and few medium and coarse roots; common very fine and fine tubular pores; common distinct clay films on faces of peds and in pores; 25 percent gravel and 10 percent cobbles; neutral (pH 7.0); gradual wavy boundary.

Bt2—20 to 30 inches; yellowish brown (10YR 5/4) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; weak fine and medium prismatic structure parting to moderate very fine and fine subangular blocky; slightly hard, friable, moderately sticky and moderately plastic; common very fine and few fine, medium, and coarse roots; common very fine and fine tubular pores; common distinct clay films on faces of peds and in pores; 25 percent gravel, 10 percent cobbles, and 10 percent stones; neutral (pH 7.2); gradual wavy boundary.

Bt3—30 to 50 inches; yellowish brown (10YR 5/4) very cobbly loam, dark yellowish brown (10YR 4/4) moist; weak fine and medium prismatic structure parting to moderate very fine and fine subangular blocky; slightly hard, friable, slightly sticky and moderately plastic; common very fine and few fine, medium, and coarse roots; common very fine and fine tubular pores; common faint clay films on faces of peds and in pores; 15 percent gravel, 20 percent cobbles, and 15 percent stones; neutral (pH 7.2); gradual wavy boundary.

BC—50 to 60 inches; yellowish brown (10YR 5/4) extremely stony loam, dark yellowish brown (10YR 4/4) moist; moderate very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky and moderately plastic; few fine and medium roots; common very fine and fine tubular pores; 15 percent gravel, 20 percent cobbles, and 30 percent stones; neutral (pH 7.2).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 39 degrees F

Average summer soil temperature—45 to 47 degrees F

Thickness of mollic epipedon—11 to 16 inches

Reaction—neutral or slightly alkaline

Particle-size control section:

Clay content—27 to 33 percent

Rock fragment content (average)—35 to 50 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist
 Chroma—1 to 3 dry or moist

Bt horizon:

Hue—7.5YR or 10YR
 Value—5 to 7 dry, 3 to 5 moist
 Chroma—3 or 4 dry or moist
 Texture—very gravelly clay loam, very cobbly loam, gravelly clay loam, cobbly clay loam, very cobbly clay loam, or very stony loam

BC horizon:

Hue—7.5YR or 10YR
 Value—5 to 7 dry, 3 or 4 moist
 Chroma—3 or 4 dry or moist
 Rock fragment content—60 to 80 percent

Fandow Series

Taxonomic classification: Loamy-skeletal, carbonatic, shallow Xereptic Petrocryids

Depth class: Shallow to a duripan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—limestone

Slope range: 2 to 20 percent

Elevation: 6,000 to 7,100 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free period: 30 to 80 days

Typical Pedon Location

Map unit in which located: Fandow gravelly loam, 2 to 6 percent slopes

Location in survey area: Lemhi County, Idaho; about 32 miles southeast of Leadore; about 1,500 feet south and 10 feet east of the northwest corner of sec. 16, T. 11 N., R. 29 E.; lat. 44°16'25" N., long. 113°00'48" W.

Typical Pedon

A—0 to 3 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; weak fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 20 percent gravel; strongly effervescent (35 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); abrupt smooth boundary.

Bk—3 to 9 inches; light yellowish brown (10YR 6/4) very gravelly loam, brown (10YR 5/3) moist; weak medium and fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 40 percent gravel; lime coatings less than 1 millimeter thick on underside of rock fragments; violently effervescent (60 percent calcium carbonate equivalent); moderately alkaline (pH 8.1); clear wavy boundary.

Bkq—9 to 12 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 5/3) moist; weak fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; common very fine and few fine and medium roots; many very fine and fine irregular pores; 50 percent gravel; silica and lime coatings 1 to 2 millimeters

thick on underside of rock fragments; violently effervescent (45 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); abrupt wavy boundary.

2Bkqm—12 to 14 inches; very pale brown (10YR 7/3) weakly cemented extremely gravelly loamy coarse sand, light gray (10YR 6/1) moist; massive; 70 percent very hard and 30 percent hard, 70 percent very firm and 30 percent firm, nonsticky and nonplastic; few very fine dead roots; common fine and medium irregular pores; continuous laminar cap less than 1 millimeter thick at a depth of 12 inches; 70 percent gravel; silica and lime coatings and pendants 1 to 4 millimeters thick on underside of rock fragments; violently effervescent; strongly alkaline (pH 8.5); clear wavy boundary.

2Bkq1—14 to 26 inches; very pale brown (10YR 7/3) extremely gravelly loamy coarse sand, light gray (10YR 6/1) moist; massive; hard, firm, nonsticky and nonplastic; few very fine dead roots; many very fine and few fine and medium irregular pores; 70 percent gravel; silica and lime pendants 2 to 4 millimeters thick on underside and sides of rock fragments; violently effervescent; strongly alkaline (pH 9.0); clear wavy boundary.

2Bkq2—26 to 60 inches; very pale brown (10YR 7/3) extremely gravelly loamy coarse sand, light gray (10YR 6/1) moist; single grain; loose, nonsticky and nonplastic; common fine and medium irregular pores; discontinuous cementation at a depth of 36 inches; 70 percent gravel and 10 percent cobbles; silica and lime coatings and pendants 1 to 4 millimeters thick on underside of rock fragments; violently effervescent; very strongly alkaline (pH 9.2).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F

Average summer soil temperature—55 to 59 degrees F

Depth to duripan—10 to 16 inches

Particle-size control section:

Clay content—12 to 20 percent

Rock fragment content (average)—35 to 50 percent

Calcium carbonate equivalent—40 to 65 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist

Texture—gravelly loam or gravelly sandy loam

Bk and Bkq horizons:

Value—6 or 7 dry, 3 to 5 moist

Chroma—3 or 4 dry or moist

Texture—very gravelly loam or very gravelly sandy loam

Rock fragment content—35 to 55 percent

2Bkq horizon:

Value—5 to 8 dry, 5 to 7 moist

Chroma—1 to 4 dry or moist

Texture—extremely gravelly loamy coarse sand, extremely gravelly coarse sand, or extremely gravelly loamy sand

Rock fragment content—60 to 85 percent

Sodium adsorption ratio—13 to 30

Farvant Series

Taxonomic classification: Ashy-skeletal, glassy, frigid, shallow Vitrandic Haplocalcids

Depth class: Shallow to tuff
Drainage class: Well drained
Permeability: Moderately rapid
Position on landscape: Hills and ridges
Parent material: Kind—residuum and colluvium; source—tuff
Slope range: 10 to 60 percent
Elevation: 5,000 to 7,000 feet
Average annual precipitation: 6 to 11 inches
Average annual air temperature: 38 to 42 degrees F
Frost-free period: 60 to 80 days

Typical Pedon Location

Map unit in which located: Snowslide-Farvant complex, 10 to 40 percent slopes
Location in survey area: Custer County, Idaho; about 6 miles southeast of Challis; about 2,100 feet south and 1,300 feet east of the northwest corner of sec. 22, T. 13 N., R. 20 E.; lat. 44°26'38" N., long. 114°05'05" W.

Typical Pedon

- A—0 to 2 inches; pale brown (10YR 6/3) gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 30 percent gravel; strongly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.
- Bk1—2 to 6 inches; light yellowish brown (10YR 6/4) gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; weak fine and medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 25 percent gravel; few lime coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.
- Bk2—6 to 12 inches; light yellowish brown (10YR 6/4) extremely flaggy sandy loam, yellowish brown (10YR 5/4) moist; weak fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; root mats on top of flagstones; many very fine and fine irregular pores; 10 percent gravel and 55 percent flagstones; few lime coatings less than 1 millimeter thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.2); clear wavy boundary.
- Crk—12 to 16 inches; moderately cemented tuff; lime coatings 1 to 5 millimeters thick in fractures.

Range in Characteristics

Profile:
 Average annual soil temperature—39 to 43 degrees F
 Depth to calcic horizon—1 to 3 inches
 Depth to bedrock—10 to 17 inches

Particle-size control section:
 Clay content—12 to 20 percent
 Rock fragment content (average)—35 to 80 percent
 Volcanic glass content—30 to 70 percent

A horizon:
 Hue—10YR or 2.5Y
 Value—4 to 6 dry or moist
 Chroma—3 or 4 dry or moist

Reaction—slightly alkaline or moderately alkaline

Texture—channery fine sandy loam or gravelly sandy loam

Bk horizon:

Hue—10YR or 2.5Y

Value—4 or 5 moist

Chroma—3 or 4 dry or moist

Texture—gravelly sandy loam, extremely flaggy sandy loam, very gravelly sandy loam, or very gravelly loam

Calcium carbonate equivalent—15 to 30 percent

Fezip Series

Taxonomic classification: Sandy, mixed Cumulic Cryaquolls

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately rapid in upper part and very rapid in lower part

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope: 0 to 4 percent

Elevation: 4,800 to 7,400 feet

Average annual precipitation: 8 to 18 inches

Average annual air temperature: 34 to 40 degrees F

Frost-free period: 5 to 60 days

Typical Pedon Location

Map unit in which located: Fezip-Redfish-Copperbasin complex, 0 to 3 percent slopes

Location in survey area: Custer County, Idaho; about 1 mile east of the junction of Pettit Lake Road and U.S. Highway 93; about 1,800 feet south and 600 feet east of the northwest corner of sec. 34, T. 8 N., R. 14 E.; lat. 44°17'28" N., long. 113°28'58" W.

Typical Pedon

Ag—0 to 2 inches; dark grayish brown (2.5Y 4/2) fine sandy loam, very dark grayish brown (10YR 3/2) moist; moderate very fine and fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine irregular pores; slightly acid (pH 6.2); clear wavy boundary.

Bg—2 to 6 inches; dark grayish brown (2.5Y 4/2) fine sandy loam, very dark grayish brown (10YR 3/2) moist; weak fine and medium subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine irregular pores; slightly acid (pH 6.2); clear wavy boundary.

Cg—6 to 16 inches; dark grayish brown (2.5Y 4/2) loamy sand, very dark grayish brown (2.5Y 3/2) moist; few fine faint masses of iron accumulation, reddish brown (5YR 4/4) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and fine and few medium roots; many very fine and fine irregular pores; slightly acid (pH 6.2); abrupt wavy boundary.

Agb—16 to 26 inches; grayish brown (2.5Y 5/2) fine sandy loam, very dark grayish brown (2.5Y 3/2) moist; common fine distinct masses of iron accumulation, reddish brown (5YR 4/4) moist; weak coarse subangular blocky structure; hard, friable, nonsticky and nonplastic; few fine and medium roots; many very fine and fine irregular pores and few fine tubular pores; lenses of organic matter 1 to 2 centimeters thick; slightly acid (pH 6.4); abrupt wavy boundary.

2C1—26 to 31 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose, nonsticky and nonplastic; few fine roots; many very fine and fine irregular

pores; 60 percent gravel and 5 percent cobbles; slightly acid (pH 6.4); clear wavy boundary.

2C2—31 to 60 inches; multicolored extremely gravelly coarse sand; single grain; loose, nonsticky and nonplastic; many fine irregular pores; 50 percent gravel, 20 percent cobbles, and 5 percent stones; slightly acid (pH 6.4).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 39 degrees F

Average summer soil temperature—44 to 49 degrees F

Depth to high water table—6 to 12 inches in May through August

Time of year flooding occurs—April through June

Thickness of mollic epipedon—20 to 30 inches

Depth to sand and gravel (2C horizon)—25 to 30 inches

Ag horizon:

Hue—2.5Y or 10YR

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 or 2 moist

Bg and Cg horizons:

Hue—2.5Y or 10YR

Value—4 or 5 dry

Texture—fine sandy loam, gravelly sandy loam, or loamy fine sand

Rock fragment content—0 to 20 percent

Reaction—neutral or slightly acid

Agb horizon:

Value—3 or 4 moist

Reaction—neutral or slightly acid

2C horizon:

Texture—extremely gravelly coarse sand or extremely gravelly loamy coarse sand

Rock fragment content—65 to 90 percent

Reaction—neutral or slightly acid

Firebox Series

Taxonomic classification: Sandy-skeletal, siliceous Xeric Haplocryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—quartzite

Slope range: 2 to 10 percent

Elevation: 6,000 to 7,000 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 39 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Firebox gravelly loam, 2 to 10 percent slopes

Location in survey area: Custer County, Idaho; about 20 miles southeast of Patterson; about 50 feet south and 2,000 feet west of the northeast corner of sec. 16, T. 11 N., R. 25 E.

Typical Pedon

- A1—0 to 3 inches; brown (10YR 5/3) gravelly loam, very dark brown (10YR 2/2) moist; weak very fine and fine subangular blocky structure parting to weak fine granular; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; many very fine irregular pores; 30 percent fine gravel; neutral (pH 7.0); clear smooth boundary.
- A2—3 to 9 inches; brown (10YR 4/3) very gravelly loam, very dark brown (10YR 2/2) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine irregular pores; 35 percent gravel; neutral (pH 7.0); clear wavy boundary.
- Bw—9 to 15 inches; dark yellowish brown (10YR 4/4) very gravelly sandy loam, brown (10YR 4/3) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine irregular pores; 45 percent gravel; neutral (pH 7.2); gradual wavy boundary.
- 2C1—15 to 21 inches; yellowish brown (10YR 5/4) extremely gravelly loamy coarse sand, dark yellowish brown (10YR 4/4) moist; single grain; loose; common very fine and few fine and medium roots; many very fine and fine irregular pores; 60 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.4); gradual wavy boundary.
- 2C2—21 to 60 inches; pink (7.5YR 7/4) extremely gravelly coarse sand, reddish yellow (7.5YR 6/6) moist; single grain; loose; common very fine and few fine and medium roots; many very fine and fine irregular pores; 70 percent gravel and 5 percent cobbles; lime coatings on underside of some gravel and cobbles; slightly alkaline (pH 7.6).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 40 degrees F
 Average summer soil temperature—54 to 58 degrees F
 Thickness of mollic epipedon—9 to 16 inches
 Depth to sand and gravel (2C horizon)—10 to 22 inches

Particle-size control section:

Clay content (average)—2 to 10 percent
 Rock fragment content—40 to 80 percent

A1 horizon:

Value—2 or 3 moist
 Texture—gravelly loam or extremely stony loam

A2 horizon:

Value—2 or 3 moist, 4 or 5 dry
 Texture—very gravelly loam or very gravelly sandy loam
 Rock fragment content—35 to 60 percent

Bw horizon:

Value—4 to 6 dry, 3 or 4 moist
 Chroma—3 or 4 dry or moist
 Texture—very gravelly loam, very gravelly sandy loam, or extremely cobbly sandy loam
 Rock fragment content—35 to 70 percent

2C horizon:

Hue—7.5YR or 10YR
 Value—5 to 7 dry, 4 to 6 moist

Texture—extremely gravelly loamy coarse sand, extremely gravelly coarse sand,
 extremely cobbly loamy sand, or extremely cobbly loamy coarse sand
 Rock fragment content—60 to 80 percent

Frailton Series

Taxonomic classification: Ashy-skeletal, glassy, frigid, shallow Vitrixerandic
 Haplocalcids

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains and hills

Parent material: Kind—residuum and colluvium; source—tuff

Slope range: 20 to 60 percent

Elevation: 4,300 to 7,000 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 38 to 43 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Dawtonia-Frailton complex, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 9 miles southeast of Clayton;
 about 1,300 feet south and 2,000 feet west of the northeast corner of sec. 17,
 T. 10 N., R. 19 E.; lat. 44°12'15" N., long. 114°14'18" W.

Typical Pedon

A—0 to 2 inches; light olive brown (2.5Y 5/4) gravelly loam, dark brown (7.5YR 4/3)
 moist; weak fine granular structure; slightly hard, very friable, nonsticky and
 nonplastic; few very fine roots; many very fine and fine irregular pores; 30 percent
 gravel; less than 5 percent of soil material slightly effervescent; slightly alkaline
 (pH 7.4); clear wavy boundary.

Bk1—2 to 6 inches; light olive brown (2.5Y 5/4) very gravelly loam, dark brown (7.5YR
 4/3) moist; strong thin platy structure parting to strong very fine subangular blocky;
 slightly hard, very friable, nonsticky and nonplastic; few very fine roots; many very
 fine and fine irregular pores; 35 percent gravel; slightly effervescent; slightly
 alkaline (pH 7.6); abrupt smooth boundary.

Bk2—6 to 11 inches; dark brown (10YR 4/3) extremely flaggy loam, dark brown (10YR
 3/3) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic;
 few very fine roots along vertical and horizontal faces; minor pockets of soil
 material with many roots; many very fine and fine irregular pores; 85 percent
 flagstones; few lime coatings 1 millimeter thick on underside of rock fragments;
 strongly effervescent; slightly alkaline (pH 7.6); abrupt smooth boundary.

Cr—11 to 15 inches; moderately cemented tuff.

Range in Characteristics

Profile:

Average annual soil temperature—39 to 44 degrees F

Depth to bedrock—10 to 20 inches

Depth to calcic horizon—1 to 3 inches

Particle-size control section:

Rock fragment content (average)—50 to 90 percent

Clay content—10 to 21 percent

Volcanic glass content—30 to 70 percent

A horizon:

Hue—2.5Y to 7.5YR

Value—4 to 7 dry or moist

Chroma—2 to 4 dry or moist

Texture—gravelly loam, very gravelly loam, or gravelly sandy loam

Bk horizon:

Hue—2.5Y to 7.5YR

Value—3 to 5 dry or moist

Chroma—3 or 4 dry or moist

Texture—very gravelly loam, very gravelly sandy loam, extremely flaggy loam, or extremely flaggy sandy loam

Rock fragment content—35 to 90 percent

Calcium carbonate equivalent—15 to 30 percent

Friedman Series*Taxonomic classification:* Clayey-skeletal, smectitic Pachic Argicryolls*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Slow*Position on landscape:* Hills, mountains, and moraines*Parent material:* Kind—colluvium; source—extrusive igneous rock*Slope range:* 5 to 50 percent*Elevation:* 6,000 to 9,500 feet*Average annual precipitation:* 13 to 22 inches*Average annual air temperature:* 34 to 41 degrees F*Frost-free period:* 20 to 60 days**Typical Pedon Location***Map unit in which located:* Lemco-Friedman complex, 20 to 50 percent slopes*Location in survey area:* Custer County, Idaho; about 3.5 miles north of Clayton; about 530 feet north and 2,100 feet east of the southwest corner of sec. 1, T. 11 N., R. 17 E.**Typical Pedon**

- A1—0 to 2 inches; dark brown (10YR 3/3) gravelly loam, very dark brown (10YR 2/2) moist; weak medium subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and fine roots and common medium roots; common very fine and fine irregular pores; 15 percent gravel; slightly acid (pH 6.3); abrupt smooth boundary.
- A2—2 to 11 inches; dark brown (10YR 3/3) very gravelly loam, very dark brown (10YR 2/2) moist; weak fine and medium subangular blocky structure; soft, friable, slightly sticky and slightly plastic; many very fine and fine and common medium roots; many very fine, common fine, and few medium irregular pores; 50 percent gravel; slightly acid (pH 6.3); clear wavy boundary.
- BA—11 to 18 inches; brown (10YR 4/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate medium subangular blocky structure; slightly hard, friable, moderately sticky and slightly plastic; common very fine and fine and few medium roots; common very fine and fine and few medium irregular pores; 50 percent gravel; slightly acid (pH 6.5); clear wavy boundary.
- Bt1—18 to 24 inches; brown (7.5YR 5/4) very gravelly clay loam, brown (7.5YR 4/4) moist; moderate coarse subangular blocky structure; hard, firm, moderately sticky and moderately plastic; common very fine and fine roots; common very fine and

few fine irregular and tubular pores; few faint clay films on faces of peds and in pores; 45 percent gravel and 5 percent cobbles; neutral (pH 6.6); clear wavy boundary.

Bt2—24 to 37 inches; brown (7.5YR 5/4) very gravelly clay loam, dark brown (7.5YR 4/4) moist; moderate fine and medium angular blocky structure; hard, firm, moderately sticky and moderately plastic; common very fine and few medium roots; common very fine and few fine irregular and tubular pores; common faint clay films on faces of peds and in pores; 45 percent gravel and 10 percent cobbles; neutral (pH 6.7); gradual wavy boundary.

Bt3—37 to 46 inches; strong brown (7.5YR 5/6) very gravelly clay, strong brown (7.5YR 4/6) moist; moderate medium angular blocky structure; hard, firm, very sticky and very plastic; few fine and medium roots; common very fine and fine tubular pores; many distinct clay films on faces of peds and in pores; 45 percent gravel and 5 percent cobbles; neutral (pH 6.8); gradual wavy boundary.

Bt4—46 to 60 inches; strong brown (7.5YR 5/6) extremely gravelly clay, strong brown (7.5YR 4/6) moist; moderate very fine and fine angular blocky structure; hard, firm, very sticky and very plastic; few fine roots; common very fine and fine tubular pores; many distinct clay films on faces of peds and in pores; 70 percent gravel and 10 percent cobbles; neutral (pH 6.8).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 42 degrees F

Average summer soil temperature—54 to 57 degrees F

Thickness of mollic epipedon—16 to 35 inches

Reaction—neutral or slightly acid

Particle-size control section:

Clay content—35 to 50 percent

Rock fragment content—35 to 80 percent

A1 horizon:

Value—3 or 4 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Bt horizon:

Hue—2.5Y, 7.5YR, or 10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—3 to 6 dry or moist

Texture—very gravelly clay loam, very gravelly clay, extremely gravelly clay, or very stony clay

Rock fragment content—35 to 80 percent

Gaciba Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Lithic Argixerolls

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains

Parent material: Kind—residuum and colluvium; source—extrusive igneous rock

Slope range: 20 to 60 percent

Elevation: 5,500 to 7,500 feet

Average annual precipitation: 11 to 16 inches

Average annual air temperature: 37 to 44 degrees F

Frost-free period: 45 to 90 days

Typical Pedon Location

Map unit in which located: Gaciba-Dacont complex, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 6 miles northwest of Challis; about 400 feet east and 350 feet south of the northwest corner of sec. 1, T. 14 N., R. 18 E.; lat. 44°34'42" N., long. 114°17'30" W.

Typical Pedon

A—0 to 4 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine granular structure; slightly hard, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine irregular pores; 30 percent gravel; slightly alkaline (pH 7.4); clear wavy boundary.

Bt1—4 to 10 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine tubular pores; common faint clay films on faces of peds and in pores; 35 percent gravel; neutral (pH 7.2); clear wavy boundary.

Bt2—10 to 15 inches; yellowish brown (10YR 5/4) very gravelly loam, brown (10YR 4/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine tubular pores; common faint and few distinct clay films on faces of peds and in pores; 40 percent gravel; slightly alkaline (pH 7.4); abrupt smooth boundary.

R—15 to 19 inches; indurated basalt.

Range in Characteristics

Profile:

Average annual soil temperature—39 to 46 degrees F

Thickness of mollic epipedon—8 to 13 inches

Depth to bedrock—12 to 20 inches

Reaction—neutral or slightly alkaline

Particle-size control section:

Clay content—16 to 24 percent

Rock fragment content—35 to 60 percent

A horizon:

Value—4 or 5 dry

Chroma—2 to 4 dry or moist

Texture—gravelly loam, cobbly loam, or very gravelly loam

Bt horizon:

Value—4 or 5 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Gany Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Typic Calcicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains

Parent material: Kind—colluvium; source—limestone

Slope range: 30 to 60 percent

Elevation: 6,500 to 9,000 feet
Average annual precipitation: 23 to 30 inches
Average annual air temperature: 34 to 38 degrees F
Frost-free period: 10 to 40 days

Typical Pedon Location

Map unit in which located: Gany gravelly loam, 30 to 60 percent slopes
Location in survey area: Custer County, Idaho; about 1 mile southeast of Bayhorse;
 about 1,750 feet west and 700 feet south of the northeast corner of sec. 11,
 T. 12 N., R. 18 E.

Typical Pedon

- Oi—0.5 inch to 0; slightly decomposed needles, twigs, leaves, and grass.
- A—0 to 6 inches; brown (10YR 4/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; common very fine and fine irregular pores and few very fine and fine tubular pores; 30 percent gravel and 2 percent cobbles; slightly alkaline (pH 7.6); clear smooth boundary.
- Bk1—6 to 13 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 4/3) moist; weak medium subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; common very fine and fine irregular pores and few very fine and fine tubular pores; 35 percent gravel and 5 percent cobbles; lime coatings 1 millimeter thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.
- Bk2—13 to 21 inches; very pale brown (10YR 7/3) very gravelly loam, yellowish brown (10YR 5/4) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine, and medium roots; common very fine tubular pores; 35 percent gravel; lime coatings 1 millimeter thick on underside and sides of rock fragments; violently effervescent (25 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear wavy boundary.
- Bk3—21 to 32 inches; very pale brown (10YR 7/4) extremely gravelly sandy loam, light yellowish brown (10YR 6/4) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine and few fine tubular pores; 35 percent gravel, 25 percent cobbles, and 2 percent stones; lime coatings 1 to 2 millimeters thick on all sides of rock fragments; violently effervescent (35 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); gradual wavy boundary.
- Bkq1—32 to 46 inches; very pale brown (10YR 7/4) extremely gravelly sandy loam, brownish yellow (10YR 6/6) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and fine and few medium roots; few very fine tubular and irregular pores; 60 percent gravel and 5 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on all sides of rock fragments; violently effervescent (30 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); gradual wavy boundary.
- Bkq2—46 to 60 inches; very pale brown (10YR 7/4) extremely gravelly sandy loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and fine and few medium and coarse roots; few very fine tubular and irregular pores; 45 percent gravel and 30 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on all sides of rock fragments; strongly effervescent; moderately alkaline (pH 8.2).

Range in Characteristics

Profile:
 Average annual soil temperature—35 to 39 degrees F

Average summer soil temperature—44 to 47 degrees F

Thickness of mollic epipedon—7 to 10 inches

Depth to calcic horizon—6 to 15 inches

Particle-size control section:

Clay content (average)—10 to 22 percent

Rock fragment content—40 to 75 percent

Calcium carbonate equivalent (average)—20 to 35 percent

A horizon:

Value—4 or 5 dry

Chroma—2 or 3 dry or moist

Bk horizon:

Hue—7.5YR or 10YR

Value—5 to 7 dry, 4 to 6 moist

Chroma—3 or 4 dry or moist

Texture—very gravelly loam, extremely gravelly loam, or extremely gravelly sandy loam

Rock fragment content—35 to 75 percent

Reaction—slightly alkaline or moderately alkaline

Bkq horizon (where present):

Hue—7.5YR or 10YR

Value—6 or 7 dry, 5 or 6 moist

Chroma—3 to 6 dry or moist

Rock fragment content—60 to 75 percent

Geemore Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Pachic Argicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 2 to 8 percent

Elevation: 6,800 to 7,500 feet

Average annual precipitation: 16 to 22 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Geemore gravelly loam, 2 to 8 percent slopes

Location in survey area: Lemhi County, Idaho; about 21 miles southeast of Leadore; about 2,100 feet south and 1,900 feet west of the northeast corner of sec. 28, T. 13 N., R. 28 E.; lat. 44°25'52" N., long. 113°07'23" W.

Typical Pedon

A—0 to 3 inches; very dark grayish brown (10YR 3/2) gravelly loam, black (10YR 2/1) moist; weak medium platy structure; soft, friable, slightly sticky and slightly plastic; many very fine and fine and common medium roots; many very fine and fine irregular pores; 15 percent gravel; neutral (pH 6.8); clear smooth boundary.

Bt1—3 to 9 inches; very dark grayish brown (10YR 3/2) very gravelly clay loam, very

dark brown (10YR 2/2) moist; moderate medium angular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; many very fine and fine and common medium roots; many very fine and fine irregular pores; common faint clay films on faces of peds and in pores; 40 percent gravel; neutral (pH 7.0); clear smooth boundary.

Bt2—9 to 19 inches; dark grayish brown (10YR 4/2) very gravelly clay loam, very dark grayish brown (10YR 3/2) moist; moderate medium angular blocky structure; hard, firm, moderately sticky and moderately plastic; common very fine, fine, and medium roots; many very fine and fine irregular pores; common faint clay films on faces of peds and in pores; 40 percent gravel; neutral (pH 7.0); abrupt smooth boundary.

Bk1—19 to 35 inches; white (10YR 8/2) very gravelly clay loam, very pale brown (10YR 7/3) moist; massive; hard, firm, moderately sticky and moderately plastic; common very fine and fine roots; common very fine and fine irregular pores; 35 percent gravel; violently effervescent; slightly alkaline (pH 7.4); abrupt wavy boundary.

Bk2—35 to 39 inches; white (10YR 8/2) very gravelly clay loam, very pale brown (10YR 7/3) moist; moderate medium platy structure; hard, firm, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine irregular pores; 45 percent gravel; violently effervescent; slightly alkaline (pH 7.4); abrupt smooth boundary.

Bkq—39 to 45 inches; about 75 percent discontinuous lime- and silica-cemented plates about 1 millimeter thick; material between the plates is white (10YR 8/2) very gravelly clay loam, very pale brown (10YR 7/3) moist; moderate medium platy structure; hard, firm, slightly sticky and slightly plastic; common very fine and fine irregular pores; 45 percent gravel; violently effervescent; slightly alkaline (pH 7.4); abrupt wavy boundary.

Bk—45 to 60 inches; white (10YR 8/2) very gravelly loam, very pale brown (10YR 7/3) moist; moderate medium platy structure; hard, firm, slightly sticky and slightly plastic; common fine irregular pores; 50 percent gravel; violently effervescent; neutral (pH 7.2).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F

Average summer soil temperature—55 to 59 degrees F

Thickness of mollic epipedon—16 to 25 inches

Depth to calcic horizon—16 to 25 inches

Depth to discontinuous cemented layer (Bkq horizon)—30 to 40 inches

Reaction—neutral or slightly alkaline

Particle-size control section:

Rock fragment content—35 to 50 percent

Clay content (average)—27 to 35 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Bt horizon:

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Bk horizon:

Value—6 to 8 dry, 4 to 7 moist

Chroma—2 to 4 dry or moist

Rock fragment content—35 to 60 percent
 Calcium carbonate equivalent—15 to 25 percent

Bkq horizon:

Strength of cementation—weak or moderate
 Percentage of horizon cemented—50 to 75 percent
 Calcium carbonate equivalent—15 to 25 percent

Bk horizon:

Value—6 to 8 dry, 6 or 7 moist
 Chroma—2 or 3 dry or moist
 Rock fragment content—40 to 70 percent
 Calcium carbonate equivalent—15 to 25 percent

Germer Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Typic Calciargids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow in the upper part and moderately rapid in the lower part

Position on landscape: Fan terraces

Parent material: Kind—alluvium; source—andesite and rhyolite

Slope range: 2 to 10 percent

Elevation: 5,200 to 5,900 feet

Average annual precipitation: 6 to 8 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Germer-Dawtonia complex, 2 to 10 percent slopes

Location in survey area: Custer County, Idaho; about 1.5 miles northeast of Challis; about 1,500 feet west and 2,450 feet south of the northeast corner of sec. 20, T. 14 N., R. 19 E.

Typical Pedon

- E—0 to 3 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 4/3) moist; moderate thick and very thick platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; common very fine and fine tubular pores and common vesicular pores; 35 percent gravel and 2 percent cobbles; slightly alkaline (pH 7.6); abrupt smooth boundary.
- Btk—3 to 9 inches; brown (7.5YR 5/4) gravelly clay loam, dark brown (7.5YR 4/4) moist; strong fine prismatic structure; hard, firm, very sticky and very plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores; many distinct clay films on faces of peds and in pores; 20 percent gravel and 5 percent cobbles; lime coatings less than 1 millimeter thick on underside of some rock fragments; neutral (pH 7.0); clear wavy boundary.
- 2Bkq1—9 to 14 inches; light yellowish brown (10YR 6/4) very gravelly loam, dark yellowish brown (10YR 4/4) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine tubular and irregular pores; 45 percent gravel and 2 percent cobbles; lime and silica coatings 1 millimeter thick on underside and some sides of rock fragments; violently effervescent; slightly alkaline (pH 7.6); clear wavy boundary.

- 2Bkq2—14 to 21 inches; very pale brown (10YR 7/4) very gravelly loam, yellowish brown (10YR 5/6) moist; weak coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine tubular pores; 45 percent gravel and 5 percent cobbles; lime and silica coatings 1 millimeter thick on underside of rock fragments; violently effervescent; strongly alkaline (pH 8.8); gradual wavy boundary.
- 2Bkq3—21 to 31 inches; very pale brown (10YR 7/4) extremely gravelly sandy loam, yellowish brown (10YR 5/6) moist; weak medium subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine and fine dead roots; common very fine irregular pores and few very fine tubular pores; 60 percent gravel and 10 percent cobbles; lime and silica coatings 1 millimeter thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.4); gradual wavy boundary.
- 2Bkq4—31 to 40 inches; very pale brown (10YR 7/4) extremely gravelly sandy loam, yellowish brown (10YR 5/6) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and fine dead roots; common very fine irregular pores; 65 percent gravel and 10 percent cobbles; lime and silica coatings 1 to 2 millimeters thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.
- 2Bkq5—40 to 60 inches; very pale brown (10YR 7/4) extremely gravelly coarse sandy loam, yellowish brown (10YR 5/6) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine and fine dead roots; common very fine irregular pores; 60 percent gravel and 20 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside and sides of rock fragments; strongly effervescent; moderately alkaline (pH 8.1).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 44 degrees F

Depth to calcic horizon—7 to 9 inches

Depth to base of argillic horizon—7 to 9 inches

Particle-size control section:

Clay content (average)—12 to 18 percent

Rock fragment content—50 to 65 percent

E horizon:

Value—3 or 4 moist

Chroma—3 or 4 dry or moist

Btk horizon:

Hue—7.5YR or 10YR

Clay content—35 to 39 percent

Rock fragment content—15 to 30 percent

Calcium carbonate equivalent—5 to 15 percent

2Bkq horizon:

Hue—7.5YR or 10YR

Value—6 or 7 dry

Chroma—3 to 6 dry or moist

Texture—very gravelly loam, extremely gravelly sandy loam, or extremely gravelly coarse sandy loam

Rock fragment content—45 to 85 percent

Reaction—slightly alkaline to strongly alkaline

Calcium carbonate equivalent—15 to 30 percent

Clay content—4 to 26 percent

Goldaho Series

Taxonomic classification: Fine, smectitic, frigid Vertic Paleargids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate over very slow

Position on landscape: Moraines

Parent material: Kind—glacial till; source—mixed

Slope range: 5 to 35 percent

Elevation: 5,000 to 6,500 feet

Average annual precipitation: 7 to 10 inches

Average annual air temperature: 38 to 40 degrees F

Frost-free period: 50 to 80 days

Typical Pedon Location

Map unit in which located: Goldaho-Zer complex, 5 to 35 percent slopes

Location in survey area: Custer County, Idaho; about 11 miles south of Patterson; about 400 feet south and 400 feet west of the northeast corner of sec. 13, T. 12 N., R. 23 E.; lat. 44°22'35" N., long. 113°40'20" W.

Typical Pedon

- E—0 to 6 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; weak thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 15 percent gravel; slightly alkaline (pH 7.6); abrupt smooth boundary.
- Bt—6 to 11 inches; yellowish brown (10YR 5/4) clay, dark yellowish brown (10YR 4/4) moist; strong medium prismatic structure parting to strong fine angular blocky; hard, firm, moderately sticky and moderately plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores and common fine tubular pores; many distinct clay films on faces of peds and in pores; 10 percent gravel; slightly effervescent; strongly alkaline (pH 8.6); clear wavy boundary.
- Btk1—11 to 17 inches; light yellowish brown (10YR 6/4) silty clay, yellowish brown (10YR 5/4) moist; moderate medium prismatic structure; hard, firm, moderately sticky and moderately plastic; few fine roots; many very fine and fine tubular pores; common faint clay films on faces of peds and in pores; 5 percent gravel; violently effervescent; strongly alkaline (pH 8.8); gradual wavy boundary.
- Btk2—17 to 37 inches; pale brown (10YR 6/3) gravelly silty clay, brown (10YR 5/3) moist; pockets that are weak red (10R 4/3) when moist in areas of decomposing rock fragments; moderate coarse prismatic structure parting to moderate medium prismatic; hard, firm, moderately sticky and moderately plastic; few faint clay films on faces of peds and in pores; 30 percent gravel; violently effervescent; moderately alkaline (pH 8.4); clear wavy boundary.
- Btk3—37 to 53 inches; pale brown (10YR 6/3) clay loam, brown (10YR 5/3) moist; white (5Y 8/2) pockets in areas of decomposing rock fragments, light gray (5Y 7/2) moist; moderate coarse and medium subangular blocky structure; hard, firm, moderately sticky and moderately plastic; few faint clay films on faces of peds and in pores; 5 percent gravel; violently effervescent; strongly alkaline (pH 8.6); clear wavy boundary.
- Btk4—53 to 61 inches; pale brown (10YR 6/3) silty clay, brown (10YR 5/3) moist; red (10R 5/6) pockets in areas of decomposing rock fragments, red (10R 4/6) moist; massive; hard, firm, moderately sticky and moderately plastic; many distinct clay films on faces of peds and in pores; 10 percent gravel; strongly effervescent; strongly alkaline (pH 8.6).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 41 degrees F

Depth to claypan—5 to 10 inches

Depth to calcic horizon—8 to 17 inches

Reaction—slightly alkaline to strongly alkaline

Particle-size control section:

Clay content—40 to 60 percent

Rock fragment content—0 to 20 percent

E horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Bt horizon:

Value—4 to 6 dry or moist

Chroma—3 or 4 dry or moist

Btk horizon:

Hue—7.5YR, 10YR, 2.5Y, 5Y, or 10R

Value—5 to 8 dry, 4 to 7 moist

Chroma—2 to 6 dry or moist

Rock fragment content—0 to 35 percent

Texture—gravelly silty clay, silty clay, or clay loam

Calcium carbonate equivalent—15 to 40 percent

Reaction—moderately alkaline or strongly alkaline

Goldhill Series

Taxonomic classification: Fine, smectitic Vertic Haplocryalfs

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Position on landscape: Hills and mountains

Parent material: Kind—glacial till or alluvium; source—mixed

Slope range: 4 to 40 percent

Elevation: 6,900 to 8,800 feet

Average annual precipitation: 13 to 18 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free period: 20 to 60 days

Typical Pedon Location

Map unit in which located: Goldhill-Zeebar complex, 8 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 19 miles southeast of Patterson; about 700 feet north and 50 feet east of the southwest corner of sec. 22, T. 11 N., R. 24 E.; lat. 44°15'44" N., long. 113°34'33" W.

Typical Pedon

A—0 to 3 inches; brown (10YR 4/3) loam, very dark grayish brown (10YR 3/2) moist; moderate very fine and fine granular structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and common fine and coarse roots; many very fine and few fine irregular pores and common very fine tubular pores; 5 percent gravel and 5 percent cobbles; neutral (pH 6.8); abrupt wavy boundary.

- BA—3 to 7 inches; brown (10YR 4/3) clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure parting to moderate very fine and fine granular; slightly hard, friable, moderately sticky and slightly plastic; many very fine, common fine, and few medium and coarse roots; many very fine and few fine irregular pores and common very fine tubular pores; 5 percent gravel and 5 percent cobbles; neutral (pH 6.8); abrupt wavy boundary.
- Bt1—7 to 11 inches; yellowish brown (10YR 5/4) gravelly clay, brown (7.5YR 4/4) moist; weak fine prismatic structure parting to strong fine and medium angular blocky; hard, firm, very sticky and very plastic; common very fine and fine and few medium and coarse roots; common very fine tubular pores; common distinct clay films on faces of peds and in pores; 15 percent gravel and 1 percent cobbles; neutral (pH 6.8); clear wavy boundary.
- Bt2—11 to 24 inches; dark yellowish brown (10YR 4/4) gravelly clay, brown (7.5YR 4/4) moist; strong fine and medium prismatic structure parting to strong fine and medium angular blocky; hard, very firm, very sticky and very plastic; common very fine and few fine roots; few fine tubular pores; many prominent and distinct clay films on faces of peds and in pores; 15 percent gravel and 1 percent cobbles; neutral (pH 7.2); clear wavy boundary.
- Bt3—24 to 33 inches; yellowish brown (10YR 5/4) gravelly clay loam, brown (7.5YR 5/4) moist; moderate fine and medium prismatic structure parting to moderate fine and medium angular blocky; hard, firm, very sticky and very plastic; common very fine and few fine roots; few very fine tubular pores; many prominent and distinct clay films on faces of peds and in pores; 20 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.6); abrupt wavy boundary.
- Bk1—33 to 40 inches; light yellowish brown (10YR 6/4) gravelly clay loam, dark yellowish brown (10YR 4/4) moist; strong thick platy structure; slightly hard, firm, sticky and slightly plastic; few very fine roots; common very fine tubular pores; 25 percent gravel and 5 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; 10 percent secondary lime in old root channels; 25 percent manganese stains on faces of peds and on rock fragments; strongly effervescent; moderately alkaline (pH 8.4); clear wavy boundary.
- Bk2—40 to 60 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, yellowish brown (10YR 5/4) moist; strong thick platy structure; slightly hard, firm, sticky and slightly plastic; few very fine roots; common very fine tubular pores; 30 percent gravel and 10 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; 10 percent secondary lime in old root channels; 25 percent manganese stains on faces of peds and on rock fragments; strongly effervescent; moderately alkaline (pH 8.4).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 42 degrees F
 Average summer soil temperature—46 to 51 degrees F
 Depth to secondary carbonates—20 to 40 inches
 Reaction—neutral to strongly alkaline

Particle-size control section:

Clay content—35 to 60 percent
 Rock fragment content—10 to 35 percent

A horizon:

Value—4 or 5 dry
 Chroma—2 or 3 dry or moist
 Texture—gravelly loam or loam

Bt horizon:

Hue—7.5YR, 10YR, or 2.5Y

Value—4 to 6 dry or moist

Chroma—3 or 4 moist

Texture—gravelly clay loam, gravelly clay, or silty clay

Bk horizon:

Hue—7.5YR or 10YR

Value—5 or 6 dry, 4 or 5 moist

Chroma—4 or 5 dry or moist

Texture—very gravelly clay loam, gravelly clay loam, loam, or sandy clay loam

Rock fragment content—5 to 60 percent

Calcium carbonate equivalent—15 to 50 percent

Goosebury Series*Taxonomic classification:* Loamy-skeletal, mixed, superactive Xeric Calcicryids*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Moderate in the upper part and very rapid or moderately rapid in the lower part*Position on landscape:* Outwash fans and fan terraces*Parent material:* Kind—alluvium; source—limestone*Slope range:* 2 to 35 percent*Elevation:* 6,300 to 8,000 feet*Average annual precipitation:* 8 to 13 inches*Average annual air temperature:* 35 to 40 degrees F*Frost-free period:* 30 to 60 days**Typical Pedon Location***Map unit in which located:* Goosebury very gravelly loam, 2 to 8 percent slopes*Location in survey area:* Custer County, Idaho; about 18 miles southeast of Challis; about 2.5 miles east of U.S. Highway 93 and Antelope Flat; about 2,200 feet east and 800 feet south of the northwest corner of sec. 8, T. 11 N., R. 21 E.; lat. 44°18'10" N., long. 114°00'09" W.**Typical Pedon**

A1—0 to 2 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 35 percent gravel; slightly alkaline (pH 7.5); clear wavy boundary.

A2—2 to 5 inches; light brownish gray (10YR 6/2) very gravelly loam, dark brown (10YR 3/3) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine and fine tubular and irregular pores; 35 percent gravel; slightly alkaline (pH 7.5); clear wavy boundary.

Bkq1—5 to 11 inches; brown (10YR 5/3) very gravelly loam, dark grayish brown (10YR 4/2) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium and coarse roots; common very fine tubular pores; 40 percent gravel and 1 percent cobbles; few lime and silica coatings 1 millimeter thick on underside of some rock fragments; strongly effervescent; slightly alkaline (pH 7.6); abrupt wavy boundary.

Bkq2—11 to 23 inches; light brownish gray (10YR 6/2) extremely gravelly sandy loam,

dark gray (10YR 4/1) moist; moderate medium subangular blocky structure; hard, firm, slightly sticky and slightly plastic; common very fine and fine roots; common very fine tubular pores; 70 percent gravel and 2 percent cobbles; common lime and silica coatings 2 to 4 millimeters thick on underside and some sides of rock fragments; few pockets of weakly cemented material; violently effervescent (15 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); abrupt wavy boundary.

Bkq3—23 to 41 inches; grayish brown (10YR 5/2) extremely gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine and fine roots; common very fine and fine irregular pores; 70 percent gravel and 2 percent cobbles; common lime and silica coatings on underside of rock fragments; some weak cementation of sand and gravel to underside of rock fragments; strongly effervescent (25 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); gradual wavy boundary.

2Bkq4—41 to 60 inches; dark grayish brown (10YR 4/2) extremely gravelly loamy coarse sand, very dark grayish brown (10YR 3/2) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and fine irregular pores; 75 percent gravel and 1 percent cobbles; few lime and silica coatings 1 millimeter thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 41 degrees F

Average summer soil temperature—55 to 59 degrees F

Depth to calcic horizon—2 to 8 inches

Depth to sand and gravel (2Bkq horizon)—40 to 60 inches or more

Particle-size control section:

Clay content—11 to 18 percent

Rock fragment content—40 to 80 percent

Calcium carbonate equivalent—15 to 40 percent

A1 horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Texture—gravelly loam or very gravelly loam

Bkq horizon:

Value—4 to 7 dry, 3 to 5 moist

Chroma—2 or 3 dry, 1 to 4 moist

Texture—very gravelly loam, very gravelly sandy loam, or extremely gravelly sandy loam

Rock fragment content—40 to 80 percent

Reaction—slightly alkaline or moderately alkaline

2Bkq horizon:

Texture—extremely gravelly loamy coarse sand

Rock fragment content—60 to 80 percent

Gradco Series

Taxonomic classification: Ashy-skeletal, glassy, frigid Vitrixerandic Haplocalcids

Depth class: Moderately deep to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Hills, ridges, and mountains

Parent material: Kind—colluvium and residuum; source—tuff

Slope range: 15 to 60 percent

Elevation: 5,000 to 7,000 feet

Average annual precipitation: 7 to 11 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free period: 60 to 80 days

Typical Pedon Location

Map unit in which located: Gradco-Farvant complex, 15 to 30 percent slopes

Location in survey area: Custer County, Idaho; about 2 miles south of Grand View Canyon and 0.5 mile west of U.S. Highway 93; about 2,000 feet south and 2,400 feet east of the northwest corner of sec. 35, T. 12 N., R. 20 E.; lat. 44°19'43" N., long. 114°04'11" W.

Typical Pedon

A—0 to 2 inches; light yellowish brown (10YR 6/4) channery fine sandy loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine irregular pores; 25 percent channers and 5 percent flagstones; slightly alkaline (pH 7.5); clear wavy boundary.

Bk—2 to 7 inches; light yellowish brown (10YR 6/4) very flaggy fine sandy loam, yellowish brown (10YR 5/4) moist; weak fine and medium subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; common very fine and fine irregular and tubular pores; 25 percent channers and 30 percent flagstones; common lime coatings less than 1 millimeter thick on underside and some sides of rock fragments; slightly effervescent; slightly alkaline (pH 7.6); clear wavy boundary.

Bkq1—7 to 14 inches; light yellowish brown (10YR 6/4) extremely flaggy fine sandy loam, yellowish brown (10YR 5/4) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium and coarse roots; common very fine and fine irregular and tubular pores; 20 percent channers and 45 percent flagstones; lime and silica coatings 1 to 2 millimeters thick on underside and some sides of rock fragments; many visible soft masses of secondary lime; strongly effervescent (15 percent calcium carbonate equivalent); strongly alkaline (pH 8.8); gradual wavy boundary.

Bkq2—14 to 24 inches; brownish yellow (10YR 6/6) extremely flaggy loam, yellowish brown (10YR 5/4) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; few very fine irregular pores; 30 percent channers and 45 percent flagstones; lime and silica coatings 1 to 3 millimeters thick on underside and some sides of rock fragments; many visible soft masses of secondary lime; strongly effervescent (9 percent calcium carbonate equivalent); strongly alkaline (pH 8.7); abrupt wavy boundary.

Bky—24 to 33 inches; light yellowish brown (10YR 6/4) extremely flaggy loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; few very fine irregular pores; 5 percent channers and 80 percent flagstones; thin coatings of segregated gypsum on 2 percent of rock fragments; minor pockets of sandy loam; strongly effervescent; moderately alkaline (pH 8.3); abrupt wavy boundary.

Cr—33 to 37 inches; moderately cemented tuff.

Range in Characteristics

Profile:

Average annual soil temperature—41 to 45 degrees F

Depth to calcic horizon—5 to 15 inches

Depth to bedrock—20 to 40 inches

Particle-size control section:

Clay content—12 to 18 percent

Rock fragment content—40 to 85 percent

Volcanic glass content—30 to 50 percent

A horizon:

Hue—2.5Y or 10YR

Value—3 or 4 moist

Chroma—2 to 4 dry, 3 or 4 moist

Texture—channery fine sandy loam or gravelly loam

Bk, Bkq, and Bky horizons:

Hue—10YR, 7.5YR, or 2.5Y

Value—3 to 5 moist

Chroma—3 to 6 dry, 3 or 4 moist

Texture—extremely flaggy loam, very gravelly loam, very flaggy fine sandy loam, extremely flaggy fine sandy loam, very gravelly sandy loam, or extremely gravelly loam

Reaction—slightly alkaline to strongly alkaline

Gypsum content—0 to 5 percent

Calcium carbonate equivalent—10 to 15 percent

Grandjean Series

Taxonomic classification: Sandy or sandy-skeletal, mixed, euc Terric Cryosapristis

Depth class: Very deep

Drainage class: Very poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Flood plains and stream terraces

Parent material: Kind—organic material derived from herbaceous plants over alluvium; source—mixed

Slope range: 0 to 3 percent

Elevation: 4,900 to 7,300 feet

Average annual precipitation: 8 to 16 inches

Average annual air temperature: 34 to 40 degrees F

Frost-free period: 5 to 70 days

Typical Pedon Location

Map unit in which located: Lilylake-Grandjean complex, 0 to 2 percent slopes

Location in survey area: Blaine County, Idaho; about 1 mile east-northeast of Pettit Lake; about 500 feet east and 10 feet north of the southwest corner of sec. 29, T. 8 N., R. 14 E.

Typical Pedon

Oe—0 to 6 inches; mucky peat that is black (10YR 2/1) when moist on broken face and rubbed; about 70 percent fibers, 35 percent rubbed; weak medium granular structure; many very fine and fine and common medium and coarse roots; neutral (pH 6.9); clear smooth boundary.

Oa1—6 to 17 inches; muck that is very dark brown (10YR 2/2) when moist on broken face and rubbed; about 60 percent fibers, 10 percent rubbed; massive; many very fine and fine and few coarse roots; moderately acid (pH 5.7); clear smooth boundary.

Oa2—17 to 27 inches; muck that is very dark brown (10YR 2/2) when moist on broken face and rubbed; about 90 percent fibers, 15 percent rubbed; massive; common very fine and fine and few medium roots; strongly acid (pH 5.3); abrupt wavy boundary.

2Cg—27 to 60 inches; gray (5Y 5/1) and greenish gray (5G 5/2) extremely gravelly coarse sand, dark greenish gray (5GY 4/1) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine irregular pores; 70 percent gravel, 15 percent cobbles, and 5 percent stones; slightly acid (pH 6.2).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 39 degrees F

Average summer soil temperature—45 to 50 degrees F

Depth to high water table—6 inches above the surface to a depth of 6 inches below the surface in January through December

Time of year flooding occurs—April through June

Depth to sand and gravel (2Cg horizon)—20 to 36 inches

Oe horizon:

Value—1 to 3 dry or moist

Chroma—1 or 2 dry or moist

Reaction—moderately acid to neutral

Oa1 and Oa2 horizons:

Value—1 or 2 dry or moist

Chroma—1 or 2 dry or moist

Reaction—strongly acid to neutral

2Cg horizon:

Hue—5Y, 5GY, or 5G

Value—4 to 6 dry or moist

Chroma—1 or 2 dry or moist

Texture—extremely gravelly loamy coarse sand or extremely gravelly coarse sand

Rock fragment content—70 to 90 percent

Reaction—slightly acid or neutral

Grouseville Series

Taxonomic classification: Fine, smectitic Pachic Argicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Position on landscape: Ridges and mountains

Parent material: Kind—alluvium and colluvium; source—volcanic rock

Slope range: 20 to 50 percent

Elevation: 6,000 to 8,000 feet

Average annual precipitation: 14 to 20 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Inferno-Grouseville association, 15 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 10 miles southwest of Darlington;

about 200 feet north and 1,100 feet east of the southwest corner of sec. 15,
T. 5 N., R. 24 E.; lat. 43°45'19" N., long. 113°35'25" W.

Typical Pedon

- A—0 to 7 inches; dark brown (10YR 3/3) silt loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; common fine tubular pores; 5 percent gravel; neutral (pH 7.3); clear smooth boundary.
- Bt—7 to 18 inches; dark brown (10YR 3/3) clay loam, very dark grayish brown (10YR 3/2) moist; weak fine prismatic structure parting to weak fine subangular blocky; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine tubular pores; few distinct clay films on faces of peds and in pores; 5 percent gravel; slightly alkaline (pH 7.5); clear smooth boundary.
- Btk1—18 to 33 inches; brown (10YR 4/3) clay, dark brown (10YR 3/3) moist; weak medium prismatic structure parting to moderate coarse subangular blocky; very hard, very firm, moderately sticky and moderately plastic; few very fine roots; few very fine irregular pores; many distinct clay films on faces of peds and in pores; pressure faces on peds; 10 percent gravel; very few soft lime masses; slightly effervescent; slightly alkaline (pH 7.7); gradual wavy boundary.
- Btk2—33 to 60 inches; pale olive (5Y 6/3) clay loam, olive (5Y 5/3) moist; weak coarse prismatic structure parting to moderate coarse subangular blocky; very hard, firm, moderately sticky and moderately plastic; few very fine roots; few very fine irregular pores; common distinct clay films on faces of peds; 5 percent gravel; thick lime seams in cracks; strongly effervescent; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 44 degrees F
Average summer soil temperature—52 to 55 degrees F
Thickness of mollic epipedon—24 to 47 inches

Particle-size control section:

Clay content (average)—35 to 45 percent
Rock fragment content—0 to 10 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist
Chroma—2 or 3 dry or moist
Reaction—neutral or slightly alkaline

Bt and Btk horizons:

Hue—5Y or 10YR
Value—3 to 6 dry, 3 to 5 moist
Chroma—3 or 4 dry, 2 to 4 moist
Texture—clay loam or clay
Reaction—slightly alkaline or moderately alkaline
Clay content—28 to 45 percent

Hagenbarth Series

Taxonomic classification: Fine-loamy, mixed, superactive Pachic Argicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow
Position on landscape: Mountains
Parent material: Kind—alluvium; source—mixed
Slope range: 20 to 50 percent
Elevation: 5,500 to 9,000 feet
Average annual precipitation: 14 to 22 inches
Average annual air temperature: 35 to 42 inches
Frost-free period: 30 to 90 days

Typical Pedon Location

Map unit in which located: Howcan-Hagenbarth-Hutchley complex, 5 to 60 percent slopes
Location in survey area: Custer County, Idaho, about 4.5 miles northwest of Mackay; about 500 feet north and 500 feet east of the southwest corner of sec. 14, T. 7 N., R. 23 E.

Typical Pedon

A1—0 to 11 inches; brown (10YR 4/3) silt loam, black (10YR 2/1) moist; moderate very fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; few very fine tubular pores; 5 percent gravel; slightly alkaline (pH 7.4); gradual smooth boundary.
 A2—11 to 22 inches; brown (10YR 4/3) loam, very dark brown (10YR 2/2) moist; moderate very fine subangular blocky structure; slightly hard, very friable, sticky and plastic; few very fine and fine roots; few very fine tubular pores; 5 percent gravel; slightly alkaline (pH 7.6); clear smooth boundary.
 Bt1—22 to 45 inches; light yellowish brown (10YR 6/4) gravelly sandy clay loam, brown (10YR 4/3) moist; weak fine and medium subangular blocky structure; slightly hard, very friable, moderately sticky and moderately plastic; few very fine and fine roots; few very fine tubular pores; few faint clay films on faces of peds and in pores; 15 percent gravel; slightly alkaline (pH 7.8); clear smooth boundary.
 Bt2—45 to 60 inches; brown (10YR 5/3) gravelly sandy clay loam, dark yellowish brown (10YR 4/4) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine tubular pores; few faint clay films on faces of peds and in pores; 20 percent gravel; slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—38 to 43 degrees F
 Average summer soil temperature—52 to 58 degrees F
 Thickness of mollic epipedon—17 to 30 inches

Particle-size control section:

Clay content—21 to 30 percent
 Gravel content—5 to 20 percent

A1 horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry, 1 or 2 moist
 Reaction—neutral or slightly alkaline

Bt horizon:

Value—5 or 6 dry, 3 to 5 moist
 Chroma—3 or 4 dry or moist
 Reaction—neutral or slightly alkaline
 Texture—gravelly sandy clay loam, gravelly clay loam, or very gravelly sandy clay loam

Heathcoat Series

Taxonomic classification: Fine, smectitic Vertic Argicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Position on landscape: Hills and mountains

Parent material: Kind—uplifted lacustrine sediment and alluvial deposits over glacial till; source—mixed

Slope range: 4 to 40 percent

Elevation: 6,500 to 8,400 feet

Average annual precipitation: 11 to 16 inches

Average annual air temperature: 35 to 42 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Heathcoat gravelly silt loam, 4 to 20 percent slopes (fig. 8)

Location in survey area: Lemhi County, Idaho; about 16 miles southeast of Leadore; about 1,150 feet east and 2,100 feet south of the northwest corner of sec. 10, T. 13 N., R. 27 E.

Typical Pedon

- A—0 to 3 inches; dark grayish brown (10YR 4/2) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak very thin platy structure parting to weak fine and medium subangular blocky; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine and medium roots; many very fine irregular pores; 15 percent gravel and 5 percent cobbles; neutral (pH 6.9); clear wavy boundary.
- Bt1—3 to 7 inches; dark grayish brown (10YR 4/2) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate very fine and fine subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; many very fine and few fine, medium, and coarse roots; common very fine irregular pores; common faint clay films on faces of peds and in pores; 3 percent gravel and 2 percent cobbles; neutral (pH 6.9); clear wavy boundary.
- Bt2—7 to 11 inches; dark grayish brown (10YR 4/2) silty clay, dark brown (10YR 3/3) moist; moderate very fine and fine prismatic structure parting to moderate fine angular blocky; slightly hard, friable, very sticky and very plastic; common very fine and few fine, medium, and coarse roots; common very fine irregular pores and few very fine tubular pores; many prominent clay films on faces of peds and in pores; 5 percent gravel and 2 percent cobbles; neutral (pH 7.3); clear wavy boundary.
- Bt3—11 to 15 inches; brown (10YR 5/3) silty clay, brown (10YR 5/3) moist; common very fine and fine prismatic structure parting to moderate fine angular blocky; hard, friable, very sticky and very plastic; few very fine and fine roots; few very fine irregular and tubular pores; many prominent clay films on faces of peds and in pores; 10 percent gravel and 2 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.
- Btk—15 to 24 inches; pale brown (10YR 6/3) gravelly clay, brown (10YR 5/3) moist; moderate very fine and fine subangular blocky structure; hard, firm, very sticky and very plastic; few very fine and fine roots; common very fine tubular pores; few thin clay films on faces of peds and in pores; 14 percent gravel and 2 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.1); gradual wavy boundary.
- 2Btkb1—24 to 44 inches; pale brown (10YR 6/3) silty clay, pale brown (10YR 6/3)



Figure 8.—Typical profile of Heathcoat gravelly silt loam, 4 to 20 percent slopes. This soil formed in uplifted lacustrine and alluvial material over glacial till. The dark-colored surface layer and subsoil extend to a depth of 28 centimeters (11 inches). The numerals on the tape are in decimeters.

moist; strong fine and medium prismatic structure parting to moderate fine and medium angular blocky; hard, firm, very sticky and very plastic; few very fine and fine roots; few very fine tubular pores; common distinct clay films on faces of peds and in pores; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent; moderately alkaline (pH 8.3); gradual wavy boundary.

2Btkb2—44 to 60 inches; light yellowish brown (10YR 6/4) silty clay, pale brown (10YR 6/3) moist; moderate medium and coarse prismatic structure parting to moderate fine, medium, and coarse subangular blocky; hard, firm, very sticky and very plastic; few very fine roots; few very fine tubular pores; common prominent clay films on faces of peds and in pores; strongly effervescent; moderately alkaline (pH 8.5).

Range in Characteristics

Profile:

Average annual soil temperature—38 to 41 degrees F
 Average summer soil temperature—55 to 57 degrees F
 Thickness of mollic epipedon—9 to 15 inches
 Depth to calcic horizon—10 to 30 inches

Particle-size control section:

Clay content—35 to 55 percent
 Rock fragment content—0 to 30 percent

A horizon:

Value—3 or 4 dry, 2 or 3 moist
 Chroma—1 or 2 dry or moist
 Reaction—slightly acid or neutral
 Texture—loam or gravelly silt loam

Bt horizon:

Value—4 to 6 dry, 3 to 5 moist
 Chroma—2 or 3 dry or moist
 Texture—gravelly clay, silty clay, or clay loam
 Reaction—neutral to moderately alkaline

2Btkb horizon:

Value—6 or 7 dry, 5 or 6 moist
 Chroma—3 or 4 dry or moist
 Texture—silty clay, gravelly clay, clay loam, very gravelly clay loam, cobbly clay loam, or very gravelly clay
 Reaction—slightly alkaline or moderately alkaline
 Calcium carbonate equivalent—15 to 20 percent

Holinrock Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Xeric Haplocalcids

Depth class: Moderately deep to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Hills

Parent material: Kind—colluvium and residuum; source—extrusive igneous rock

Slope range: 15 to 40 percent

Elevation: 5,300 to 6,000 feet

Average annual precipitation: 6 to 10 inches
Average annual air temperature: 38 to 41 degrees F
Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Mitring-Holinrock complex, 15 to 40 percent slopes
Location in survey area: Custer County, Idaho; about 8.5 miles southeast of Challis;
 about 1,800 feet south and 1,350 feet west of the northeast corner of sec. 28,
 T. 13 N., R. 20 E.; lat. 44°25'48" N., long. 114°05'52" W.

Typical Pedon

- A—0 to 2 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure parting to weak fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 30 percent gravel; lime coatings less than 1 millimeter thick on rock fragments; slightly alkaline (pH 7.5); clear wavy boundary.
- Bw—2 to 6 inches; yellowish brown (10YR 5/4) very gravelly loam, brown (10YR 4/3) moist; weak fine and medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; common very fine and fine irregular pores; 35 percent gravel; slightly alkaline (pH 7.5); gradual wavy boundary.
- Bkq1—6 to 13 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine, fine, and medium roots; many fine irregular pores; 35 percent gravel; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; few soft masses of secondary lime; strongly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.
- Bkq2—13 to 24 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine and fine irregular pores; 45 percent gravel; lime and silica coatings on fine gravel; few root mats between peds; moderately alkaline (pH 8.2); clear wavy boundary.
- Bkq3—24 to 29 inches; yellowish brown (10YR 5/4) extremely gravelly loam, brown (10YR 4/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; many very fine and fine irregular pores; 50 percent gravel and 15 percent cobbles; many root mats on sides of rock fragments; lime and silica coatings 2 to 8 millimeters thick on sides and underside of rock fragments; violently effervescent; moderately alkaline (pH 8.4); clear wavy boundary.
- R—29 to 33 inches; indurated rhyodacite; lime and silica coatings 5 millimeters to 1 centimeter thick in fractures that are more than 4 inches apart.

Range in Characteristics

Profile:

Average annual soil temperature—40 to 43 degrees F
 Depth to bedrock—21 to 35 inches
 Depth to calcic horizon—3 to 7 inches

Particle-size control section:

Clay content—18 to 26 percent
 Rock fragment content—35 to 65 percent
 Calcium carbonate equivalent—15 to 35 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist

Bkq horizon:

Value—5 to 7 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Texture—very gravelly loam or extremely gravelly loam

Reaction—slightly alkaline or moderately alkaline

Howcan Series*Taxonomic classification:* Loamy-skeletal, mixed, superactive, frigid Typic Argixerolls*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Moderate*Position on landscape:* Mountains and fan terraces*Parent material:* Kind—alluvium; source—extrusive igneous rock*Slope range:* 20 to 60 percent*Elevation:* 5,500 to 7,500 feet*Average annual precipitation:* 12 to 18 inches*Average annual air temperature:* 38 to 42 degrees F*Frost-free period:* 50 to 90 days**Typical Pedon Location***Map unit in which located:* Soen-Justesen-Howcan complex, 4 to 35 percent slopes*Location in survey area:* Custer County, Idaho; about 13 miles northwest of Mackay; about 2,300 feet south and 100 feet east of the northwest corner of sec. 4, T. 7 N., R. 22 E.; lat. 43°57'58" N., long. 113°51'45" W.**Typical Pedon**

- A—0 to 4 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine and fine irregular pores; 15 percent gravel; neutral (pH 7.0); gradual smooth boundary.
- Bt1—4 to 10 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine roots; many very fine tubular pores; common faint clay films on faces of peds and in pores; 20 percent gravel and 10 percent cobbles; neutral (pH 7.3); gradual smooth boundary.
- Bt2—10 to 30 inches; yellowish brown (10YR 5/4) very cobbly loam, dark yellowish brown (10YR 4/4) moist; moderate coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine tubular pores; few faint clay films on faces of peds and in pores; 25 percent gravel and 30 percent cobbles; neutral (pH 7.3); gradual smooth boundary.
- BC—30 to 48 inches; yellowish brown (10YR 5/6) very gravelly loam, dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine tubular pores; 30 percent gravel and 10 percent cobbles; neutral (pH 7.3); gradual smooth boundary.
- C—48 to 64 inches; brown (7.5YR 5/4) very cobbly sandy loam, dark brown (7.5YR 3/4) moist; massive; slightly hard, friable, slightly sticky and nonplastic; common very fine and few fine irregular pores; 30 percent gravel and 20 percent cobbles; slightly effervescent; slightly alkaline (pH 7.5).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 42 degrees F

Thickness of mollic epipedon—10 to 14 inches

Particle-size control section:

Clay content—20 to 32 percent

Rock fragment content (average)—40 to 60 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Reaction—neutral or slightly alkaline

Bt horizon:

Hue—7.5YR or 10YR

Value—3 to 5 dry, 2 to 4 moist

Chroma—3 or 4 dry or moist

Texture—gravelly loam, very gravelly loam, very cobbly loam, or very gravelly sandy clay loam

Reaction—neutral or slightly alkaline

BC horizon:

Hue—7.5YR or 10YR

Value—4 to 6 dry, 4 or 5 moist

Chroma—4 to 6 dry or moist

Rock fragment content—35 to 60 percent

Reaction—neutral or slightly alkaline

C horizon:

Value—3 to 6 dry or moist

Chroma—3 to 5 dry or moist

Texture—extremely gravelly sandy loam, very gravelly loam, or very cobbly sandy loam

Rock fragment content—35 to 60 percent

Reaction—neutral or slightly alkaline

Hutchley Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Lithic Argixerolls

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Mountains and hills

Parent material: Kind—colluvium and residuum; source—volcanic rock

Slope range: 5 to 50 percent

Elevation: 5,500 to 8,000 feet

Average annual precipitation: 12 to 18 inches

Average annual air temperature: 37 to 42 degrees F

Frost-free period: 30 to 90 days

Typical Pedon Location

Map unit in which located: Nurkey-Zeebar-Hutchley complex, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 26 miles west of Mackay;

about 2,100 feet south and 1,600 feet east of the northwest corner of sec. 17,

T. 7 N., R. 20 E.

Typical Pedon

- A—0 to 5 inches; brown (10YR 4/3) stony loam, dark brown (10YR 3/3) moist; weak thin platy structure parting to weak fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; 10 percent gravel and 5 percent stones; neutral (pH 7.2); clear smooth boundary.
- Bt1—5 to 10 inches; brown (10YR 4/3) very gravelly clay loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common fine and medium roots; common very fine irregular pores; few faint clay films on faces of peds and in pores; 35 percent gravel and 10 percent cobbles; slightly alkaline (pH 7.4); clear smooth boundary.
- Bt2—10 to 18 inches; yellowish brown (10YR 5/4) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; strong medium subangular blocky structure; hard, firm, moderately sticky and moderately plastic; few very fine and medium roots; few very fine irregular pores; common distinct clay films on faces of peds and in pores; 35 percent gravel, 10 percent cobbles, and 1 percent stones; slightly alkaline (pH 7.6); abrupt wavy boundary.
- R—18 to 28 inches; indurated bedrock.

Range in Characteristics*Profile:*

Average annual soil temperature—42 to 47 degrees F
 Thickness of mollic epipedon—10 to 20 inches
 Depth to bedrock—10 to 20 inches

Particle-size control section:

Clay content (average)—20 to 35 percent
 Rock fragment content (average)—45 to 55 percent

A horizon:

Value—4 or 5 dry
 Reaction—neutral or slightly alkaline
 Texture—gravelly loam or stony loam

Bt horizon:

Value—4 or 5 dry, 3 or 4 moist
 Chroma—3 or 4 dry
 Texture—very gravelly loam, very gravelly clay loam, very cobbly clay loam, or extremely gravelly loam
 Reaction—neutral or slightly alkaline

Ike Series

Taxonomic classification: Loamy-skeletal, carbonatic, frigid Lithic Xeric Haplocalcids

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains

Parent material: Kind—colluvium and residuum; source—limestone

Slope range: 15 to 75 percent

Elevation: 5,500 to 8,500 feet

Average annual precipitation: 10 to 13 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free period: 10 to 70 days

Typical Pedon Location

Map unit in which located: Ike-Rock outcrop-Jimbee complex, 15 to 60 percent slopes

Location in survey area: Custer County, Idaho; about 0.75 mile northeast of Leslie; about 200 feet west and 300 feet south of the northeast corner of sec. 14, T. 6 N., R. 25 E.; lat. 43°51'22" N., long. 113°27'19" W.

Typical Pedon

A—0 to 3 inches; brown (10YR 5/3) stony loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; common very fine tubular pores; 10 percent gravel, 5 percent cobbles, and 5 percent stones; strongly effervescent (30 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear smooth boundary.

Bkq1—3 to 12 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; common very fine tubular pores; 30 percent gravel and 5 percent cobbles; common lime and silica coatings 1 to 2 millimeters thick and pendants 3 to 5 millimeters thick on underside of rock fragments; violently effervescent (40 percent calcium carbonate equivalent); moderately alkaline (pH 8.1); clear smooth boundary.

Bkq2—12 to 17 inches; pale brown (10YR 6/3) extremely gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and nonplastic; common very fine, fine, and medium roots; common very fine tubular pores; 45 percent gravel and 15 percent cobbles; common lime and silica coatings 1 to 2 millimeters thick and pendants 3 to 5 millimeters thick on underside of rock fragments; violently effervescent (45 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); abrupt wavy boundary.

R—17 to 21 inches; dark gray (N 4/0) indurated limestone, slightly stained and weathered to reddish brown (5YR 5/4).

Range in Characteristics

Profile:

Average annual soil temperature—42 to 47 degrees F

Depth to calcic horizon—2 to 7 inches

Reaction—slightly alkaline to strongly alkaline

Depth to bedrock—10 to 20 inches

Particle-size control section:

Clay content—10 to 20 percent

Rock fragment content (average)—40 to 85 percent

Calcium carbonate equivalent—40 to 60 percent

A horizon:

Value—5 to 7 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Bkq1 horizon:

Value—5 to 7 dry, 3 to 5 moist

Chroma—3 or 4 moist

Texture—very gravelly silt loam or very gravelly loam

Rock fragment content—35 to 60 percent

Bkq2 horizon:

Hue—10YR or 2.5Y

Value—6 to 8 dry, 4 to 7 moist

Chroma—2 or 3 dry, 2 to 4 moist

Texture—extremely gravelly silt loam, very gravelly sandy loam, or extremely stony loam

Rock fragment content—35 to 90 percent

Inferno Series

Taxonomic classification: Fine, smectitic, frigid Vertic Palexeralfs

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Position on landscape: Ridges and mountains

Parent material: Kind—alluvium and colluvium; source—volcanic rock

Slope range: 15 to 35 percent

Elevation: 6,000 to 8,000 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 40 to 44 degrees F

Frost-free period: 60 to 100 days

Typical Pedon Location

Map unit in which located: Inferno-Grouseville association, 15 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 3 miles southwest of Mackay; about 2,500 feet south and 500 feet east of the northwest corner of sec. 5, T. 6 N., R. 24 E.

Typical Pedon

- A1—0 to 7 inches; brown (10YR 5/3) gravelly clay loam, dark brown (10YR 3/3) moist; moderate fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine roots; 15 percent gravel and 1 percent cobbles; slightly alkaline (pH 7.4); abrupt smooth boundary.
- A2—7 to 12 inches; brown (7.5YR 5/4) gravelly clay loam, dark brown (7.5YR 4/4) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine tubular pores; 10 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.6); abrupt smooth boundary.
- Bt1—12 to 28 inches; strong brown (7.5YR 4/6) gravelly clay, strong brown (7.5YR 4/6) moist; moderate coarse prismatic structure parting to moderate medium subangular blocky; hard, firm, very sticky and very plastic; common very fine and few fine and medium roots; common very fine tubular pores; many distinct clay films on faces of peds and in pores; 15 percent gravel and 1 percent cobbles; moderately alkaline (pH 7.9); clear irregular boundary.
- Bt2—28 to 36 inches; pink (7.5YR 7/4) gravelly clay, brown (7.5YR 5/4) moist; moderate medium prismatic structure parting to moderate medium subangular blocky; very hard, firm, very sticky and very plastic; common very fine and few fine and medium roots; common very fine tubular pores; common distinct clay films on faces of peds and in pores; 15 percent gravel and 5 percent cobbles; moderately alkaline (pH 7.9); clear irregular boundary.
- Btk1—36 to 54 inches; pink (7.5YR 8/4) gravelly clay, strong brown (7.5YR 5/6) moist; moderate fine subangular blocky structure; very hard, firm, moderately sticky and moderately plastic; few fine roots; common very fine tubular pores; few faint clay films on faces of peds and in pores; 10 percent gravel, 5 percent cobbles, and 2 percent stones; lime coatings less than 1 millimeter thick on underside and sides

of rock fragments; slightly effervescent; moderately alkaline (pH 8.1); clear irregular boundary.

Btk2—54 to 60 inches; pink (7.5YR 8/4) extremely gravelly clay, reddish yellow (7.5YR 6/6) moist; strong fine and medium subangular blocky structure; very hard, firm, moderately sticky and moderately plastic; few very fine tubular pores; few thin clay films on faces of peds and in pores; 60 percent gravel, 5 percent cobbles, and 5 percent stones; lime coatings less than 1 millimeter thick on underside and sides of rock fragments; strongly effervescent; moderately alkaline pH 8.1).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 41 degrees F

Depth to argillic horizon—10 to 14 inches

Particle-size control section:

Clay content—35 to 50 percent

Rock fragment content—15 to 30 percent

A1 horizon:

Hue—7.5YR or 10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Reaction—neutral or slightly alkaline

Bt horizon:

Hue—7.5YR or 10YR

Value—4 to 7 dry, 3 to 5 moist

Chroma—3 to 6 dry or moist

Reaction—slightly alkaline or moderately alkaline

Btk horizon:

Value—7 or 8 dry, 5 or 6 moist

Texture—gravelly clay or extremely gravelly clay

Rock fragment content—15 to 80 percent

Reaction—slightly alkaline or moderately alkaline

Jimbee Series

Taxonomic classification: Loamy-skeletal, carbonatic Lithic Calcicryolls

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains

Parent material: Kind—colluvium; source—limestone

Slope range: 15 to 60 percent

Elevation: 5,500 to 8,500 feet

Average annual precipitation: 10 to 13 inches

Average annual air temperature: 36 to 42 degrees F

Frost-free period: 10 to 70 days

Typical Pedon Location

Map unit in which located: Jimbee-Rock outcrop-like association, 30 to 75 percent slopes

Location in survey area: Custer County, Idaho; about 4 miles southwest of Mackay; about 100 feet north and 2,000 feet east of the southwest corner of sec. 18, T. 6 N., R. 25 E.; lat. 43°50'27" N., long. 113°31'52" W.

Typical Pedon

- A1—0 to 3 inches; grayish brown (10YR 5/2) gravelly loam, dark brown (10YR 3/3) moist; weak fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine irregular pores; 20 percent gravel and 5 percent cobbles; strongly effervescent (45 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear smooth boundary.
- A2—3 to 6 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; common very fine tubular pores; 20 percent gravel and 5 percent cobbles; strongly effervescent (50 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear wavy boundary.
- Bkq1—6 to 9 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, nonsticky and slightly plastic; many very fine, common fine, and few medium roots; common very fine tubular pores; 30 percent gravel and 5 percent cobbles; prominent lime and silica coatings and pendants on underside of rock fragments; violently effervescent (55 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.
- Bkq2—9 to 16 inches; very pale brown (10YR 7/3) very gravelly loam, yellowish brown (10YR 5/4) moist; weak fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; common very fine and few fine roots; common very fine tubular pores; 35 percent gravel and 5 percent cobbles; prominent lime and silica coatings and pendants on underside and sides of rock fragments; violently effervescent (55 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); abrupt wavy boundary.
- R—16 to 20 inches; indurated limestone.

Range in Characteristics

Profile:

Average annual soil temperature—37 to 42 degrees F
 Average summer soil temperature—45 to 48 degrees F
 Thickness of mollic epipedon—7 to 12 inches
 Depth to bedrock—10 to 20 inches
 Depth to calcic horizon—2 to 7 inches

Particle-size control section:

Clay content—12 to 22 percent
 Rock fragment content—35 to 50 percent
 Calcium carbonate equivalent—45 to 55 percent

A horizon:

Value—3 to 5 dry
 Chroma—2 or 3 dry or moist

Bkq horizon:

Value—5 to 7 dry, 3 to 7 moist
 Chroma—3 or 4 dry or moist
 Texture—very gravelly loam, very gravelly sandy loam, or very stony loam
 Reaction—moderately alkaline or strongly alkaline

Justesen Series

Taxonomic classification: Fine-loamy, mixed, superactive, frigid Calcic Argixerolls

Depth class: Very deep
Drainage class: Well drained
Permeability: Moderately slow
Position on landscape: Fan terraces
Parent material: Kind—alluvium; source—rhyolite and basalt
Slope range: 2 to 20 percent
Elevation: 5,500 to 7,000 feet
Average annual precipitation: 12 to 16 inches
Average annual air temperature: 38 to 45 degrees F
Frost-free period: 50 to 90 days

Typical Pedon Location

Map unit in which located: Justesen-Drage complex, 2 to 15 percent slopes
Location in survey area: Custer County, Idaho; about 13 miles southwest of Darlington; about 1,500 feet south and 1,500 feet west of the northeast corner of sec. 5, T. 4 N., R. 24 E.

Typical Pedon

- A1—0 to 4 inches; brown (10YR 5/3) loam, very dark grayish brown (10YR 3/2) moist; strong thick platy structure parting to moderate fine granular; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine vesicular pores; slightly alkaline (pH 7.5); clear smooth boundary.
- A2—4 to 13 inches; grayish brown (10YR 5/2) clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; hard, firm, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine tubular pores; 5 percent gravel; slightly alkaline (pH 7.5); gradual wavy boundary.
- Bt—13 to 25 inches; pale brown (10YR 6/3) clay loam, brown (10YR 4/3) moist; moderate medium prismatic structure parting to moderate medium subangular blocky; hard, firm, moderately sticky and moderately plastic; common very fine and few fine and medium roots; many very fine and fine tubular pores; common faint clay films on faces of peds and in pores; 5 percent gravel; slightly alkaline (pH 7.6); clear wavy boundary.
- Bkq1—25 to 40 inches; light yellowish brown (10YR 6/4) clay loam, dark yellowish brown (10YR 4/4) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine, fine, and medium roots; common very fine tubular pores; 5 percent gravel; lime and silica coatings 1 to 2 millimeters thick on all sides of rock fragments; strongly effervescent; moderately alkaline (pH 7.9); clear wavy boundary.
- Bkq2—40 to 60 inches; pale brown (10YR 6/3) loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; common very fine tubular pores; 10 percent gravel; lime and silica coatings 1 to 2 millimeters thick on all sides of rock fragments; strongly effervescent; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:
 Average annual soil temperature—42 to 47 degrees F
 Thickness of mollic epipedon—11 to 15 inches
 Depth to calcic horizon—24 to 40 inches

Particle-size control section:
 Clay content—27 to 35 percent
 Gravel content—0 to 10 percent

A1 horizon:

Value—2 or 3 moist

Chroma—2 or 3 dry or moist

Reaction—neutral or slightly alkaline

Bt horizon:

Value—4 to 6 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Texture—clay loam or silty clay loam

Reaction—neutral or slightly alkaline

Bkq horizon:

Value—6 or 7 dry, 4 to 6 moist

Chroma—2 to 4 dry, 3 or 4 moist

Texture—silty clay loam, loam, or stony loam

Gravel content—0 to 10 percent

Reaction—slightly alkaline or moderately alkaline

Calcium carbonate equivalent—15 to 25 percent

Kadletz Series*Taxonomic classification:* Sandy-skeletal, mixed, frigid Typic Torriorthents*Depth class:* Very deep*Drainage class:* Somewhat excessively drained*Permeability:* Moderate in the upper part and rapid in the lower part*Position on landscape:* Fan terraces*Parent material:* Kind—alluvium; source—quartzite*Slope range:* 2 to 6 percent*Elevation:* 4,800 to 5,800 feet*Average annual precipitation:* 6 to 8 inches*Average annual air temperature:* 38 to 41 degrees F*Frost-free period:* 60 to 100 days**Typical Pedon Location***Map unit in which located:* Kadletz very gravelly loam, 2 to 6 percent slopes*Location in survey area:* Custer County, Idaho; about 3 miles southeast of May; about 1,100 feet west and 2,200 feet north of the southeast corner of sec. 5, T. 14 N., R. 22 E.; lat. 44°34'20" N., long. 113°52'30" W.**Typical Pedon**

A—0 to 2 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; weak very thin and thin platy structure; soft, very friable, nonsticky and nonplastic; common very fine and few fine roots; many very fine tubular and irregular pores; 35 percent gravel and 2 percent cobbles; slightly alkaline (pH 7.6); clear wavy boundary.

BA—2 to 5 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 5/3) moist; weak very fine granular structure; soft, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine tubular and irregular pores; 30 percent gravel and 3 percent cobbles; slightly alkaline (pH 7.4); clear wavy boundary.

Bw1—5 to 8 inches; light yellowish brown (10YR 6/4) very gravelly loam, yellowish brown (10YR 5/4) moist; weak very fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many

very fine irregular and tubular pores; 40 percent gravel, 3 percent cobbles, and 5 percent stones; neutral (pH 7.2); clear wavy boundary.

2Bw2—8 to 12 inches; light yellowish brown (10YR 6/4) very gravelly loamy sand, yellowish brown (10YR 5/4) moist; single grain; loose, nonsticky and nonplastic; many very fine and few fine roots; many very fine and common fine irregular pores; 45 percent gravel, 5 percent cobbles, and 2 percent stones; neutral (pH 7.2); clear wavy boundary.

2Bkq1—12 to 44 inches; very pale brown (10YR 7/4) extremely gravelly loamy coarse sand, light yellowish brown (10YR 6/4) moist; single grain; loose, nonsticky and nonplastic; few very fine roots; many very fine and common fine irregular pores; 50 percent gravel, 10 percent cobbles, and 2 percent stones; lime and silica coatings less than 2 millimeters thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.8); abrupt wavy boundary.

2Bkq2—44 to 60 inches; very pale brown (10YR 7/4) extremely gravelly loamy coarse sand, light yellowish brown (10YR 6/4) moist; massive; 60 percent hard and firm, 20 percent very hard and very firm, and 20 percent loose; dead root mats at abrupt boundary at a depth of 44 inches; few very fine tubular pores; 50 percent gravel, 10 percent cobbles, and 2 percent stones; lime and silica coatings less than 2 millimeters thick on rock fragments; strongly effervescent; strongly alkaline (pH 8.6).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Depth to secondary carbonates—10 to 18 inches

Depth to sand and gravel (2Bw horizon)—5 to 12 inches

Reaction—neutral to very strongly alkaline

Particle-size control section:

Clay content—1 to 7 percent

Rock fragment content—50 to 80 percent

A horizon:

Value—4 or 5 moist

2Bkq horizon:

Value—6 or 7 dry, 5 or 6 moist

Texture—extremely gravelly loamy coarse sand or extremely gravelly coarse sand

Rock fragment content—60 to 85 percent

Kehar Series

Taxonomic classification: Fine, smectitic, frigid Xerertic Calcicargids

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Position on landscape: Hills and mountains

Parent material: Kind—colluvium; source—tuff and rhyolite

Slope range: 8 to 50 percent

Elevation: 5,400 to 7,000 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Kehar complex, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 4 miles east of Clayton; about 1,250 feet east and 2,150 feet north of the southwest corner of sec. 27, T. 11 N., R. 18 E.; lat. 44°15'08" N., long. 114°40'42" W.

Typical Pedon

- A—0 to 4 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; moderate very fine and fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine irregular and tubular pores; 30 percent gravel and 5 percent cobbles; neutral (pH 7.2); clear wavy boundary.
- Bt—4 to 9 inches; light yellowish brown (10YR 6/4) gravelly clay loam, dark yellowish brown (10YR 4/4) moist; weak fine and very fine subangular blocky structure parting to weak fine granular; slightly hard, friable, moderately sticky and moderately plastic; common very fine and fine and few medium and coarse roots; common very fine and fine tubular pores; common faint and few distinct clay films on the faces of peds and in pores; 30 percent gravel; slightly alkaline (pH 7.5); clear wavy boundary.
- Btss—9 to 19 inches; light yellowish brown (10YR 6/4) gravelly silty clay, yellowish brown (10YR 5/4) moist; strong fine and medium prismatic structure; very hard, very firm, very sticky and very plastic; common very fine and few fine and medium roots; common very fine and few fine tubular pores; many distinct clay films on the faces of peds and in pores; few slickensides; 20 percent gravel; slightly alkaline (pH 7.7); clear wavy boundary.
- Btk—19 to 34 inches; light yellowish brown (10YR 6/4) clay loam, light yellowish brown (10YR 6/4) moist; moderate fine and medium prismatic structure parting to moderate fine subangular blocky; hard, firm, very sticky and moderately plastic; common very fine and few fine roots; common very fine and few fine tubular pores; common faint and few distinct clay films on the faces of peds and in pores in areas that do not have secondary lime; 10 percent gravel; 5 percent soft secondary lime nodules; strongly effervescent; moderately alkaline (pH 7.9); clear wavy boundary.
- 2Bk1—34 to 45 inches; light yellowish brown (10YR 6/4) very gravelly sandy clay loam, yellowish brown (10YR 5/4) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; common very fine irregular and tubular pores; 40 percent gravel; lime coatings less than 1 millimeter thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.
- 2Bk2—45 to 55 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, light yellowish brown (10YR 6/4) moist; massive; slightly hard, friable, moderately sticky and moderately plastic; few very fine dead roots; common very fine and few fine tubular pores; 40 percent gravel and 10 percent cobbles; lime coatings 1 millimeter thick on underside of some rock fragments; 10 percent of volume is decomposing rock fragments in pockets; violently effervescent; moderately alkaline (pH 8.2); gradual wavy boundary.
- 2Bk3—55 to 60 inches; brownish yellow (10YR 6/6) very gravelly clay, brownish yellow (10YR 6/6) moist; massive; hard, firm, very sticky and very plastic; few very fine dead roots; common very fine and few fine tubular pores; 35 percent gravel and 15 percent cobbles; lime coatings 1 millimeter thick on underside of rock fragments; common soft secondary lime as nodules and filaments; strongly effervescent; moderately alkaline (pH 8.4).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 44 degrees F

Depth to argillic horizon—0 to 5 inches

Depth to secondary carbonates—7 to 20 inches

Depth to calcic horizon—16 to 35 inches

Particle-size control section:

Clay content (average)—35 to 50 percent

Rock fragment content—10 to 35 percent

A horizon:

Value—5 or 6 dry, 3 to 5 moist

Chroma—3 or 4 dry or moist

Texture—gravelly loam, very gravelly loam, or gravelly clay

Bt, Btss, and Btk horizons:

Hue—10YR or 2.5Y

Value—6 to 8 dry, 4 to 7 moist

Chroma—1 to 4 dry or moist

Texture—clay loam, gravelly clay loam, or gravelly silty clay

Rock fragment content—15 to 35 percent

Reaction—slightly alkaline or moderately alkaline

2Bk horizon:

Hue—10YR or 2.5Y

Value—6 to 8 dry, 4 to 7 moist

Chroma—1 to 6 dry or moist

Texture—very gravelly clay, very gravelly clay loam, very gravelly sandy clay loam, or very gravelly loam

Rock fragment content—35 to 55 percent

Reaction—moderately alkaline or strongly alkaline

Ketchum Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Xeric Eutrocryepts

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid

Position on landscape: Mountains

Parent material: Kind—colluvium; source—quartzite, phyllite, and sandstone

Slope range: 20 to 60 percent

Elevation: 6,500 to 8,900 feet

Average annual precipitation: 18 to 24 inches

Average annual air temperature: 36 to 38 degrees F

Frost-free period: 10 to 50 days

Typical Pedon Location

Map unit in which located: Ketchum very gravelly loam, 35 to 60 percent slopes (fig. 9)

Location in survey area: Lemhi County, Idaho; about 9 miles east of Tendoy; about 1,900 feet south and 400 feet west of the northeast corner of sec. 27, T. 19 N., R. 25 E.; lat. 43°34'45" N., long. 114°13'46" W.

Typical Pedon

Oi—1.5 inches to 0; slightly decomposed needles, twigs, leaves, and grass.

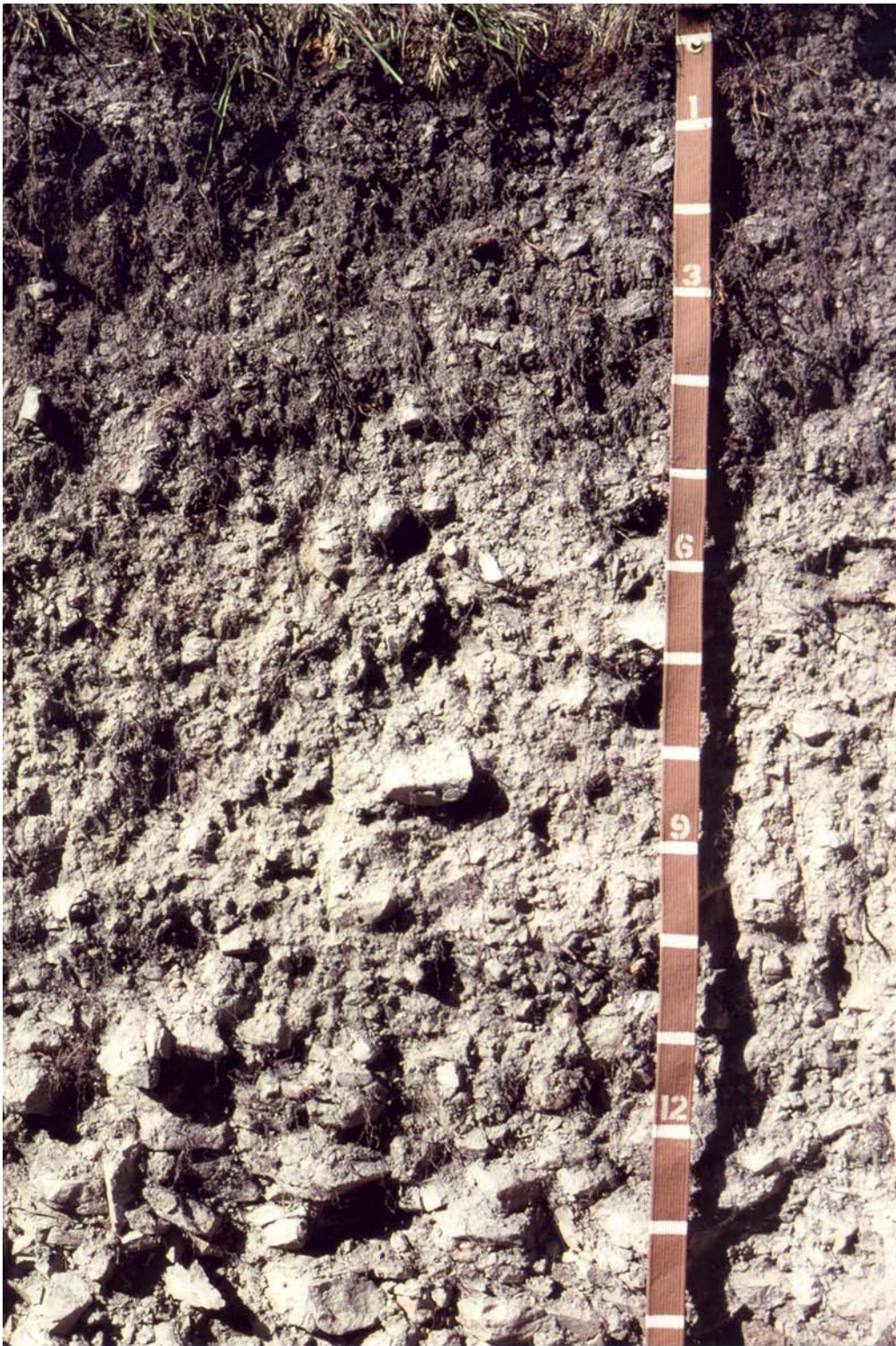


Figure 9.—Typical profile of Ketchum very gravelly loam, 35 to 60 percent slopes. This soil formed in colluvium derived from quartzite. The numerals on the tape are in decimeters.

A1—0 to 4 inches; light brownish gray (10YR 6/2) very gravelly loam, dark brown (10YR 3/3) moist; moderate very fine and fine granular structure; soft, very friable,

- nonsticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine tubular pores; 50 percent gravel and 2 percent cobbles; moderately acid (pH 5.7); clear wavy boundary.
- A2—4 to 10 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate very fine and fine granular structure; soft, very friable, nonsticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine tubular pores; 50 percent gravel and 2 percent cobbles; slightly acid (pH 6.2); gradual wavy boundary.
- Bw1—10 to 20 inches; very pale brown (10YR 7/3) very gravelly sandy loam, brown (10YR 4/3) moist; weak very fine and fine subangular blocky structure parting to weak very fine granular; soft, very friable, nonsticky and slightly plastic; many very fine and fine and few medium and coarse roots; common very fine and fine tubular and irregular pores; 50 percent gravel and 5 percent cobbles; slightly acid (pH 6.2); gradual wavy boundary.
- Bw2—20 to 36 inches; very pale brown (10YR 7/3) very gravelly sandy loam, yellowish brown (10YR 5/4) moist; weak very fine and fine subangular blocky structure; soft, very friable, nonsticky and slightly plastic; common very fine and fine and few medium and coarse roots; common very fine and fine tubular pores; 50 percent gravel and 5 percent cobbles; slightly acid (pH 6.3); clear wavy boundary.
- C1—36 to 43 inches; light brownish gray (10YR 6/2) extremely gravelly sandy loam, grayish brown (10YR 5/2) moist; massive; soft, very friable, nonsticky and slightly plastic; many very fine and fine, common medium, and few coarse roots; common very fine and fine tubular pores; 65 percent gravel and 10 percent cobbles; slightly acid (pH 6.2); gradual wavy boundary.
- C2—43 to 60 inches; light brownish gray (10YR 6/2) extremely gravelly sandy loam, grayish brown (10YR 5/2) moist; massive; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; common very fine and fine tubular pores; 65 percent gravel and 15 percent cobbles; slightly acid (pH 6.2).

Range in Characteristics

Profile:

Average annual soil temperature—38 to 40 degrees F
 Average summer soil temperature—54 to 57 degrees F
 Base saturation—60 to 75 percent in upper 30 inches

Particle-size control section:

Clay content—10 to 16 percent

A1 horizon:

Value—5 or 6 dry, 2 to 4 moist
 Chroma—2 or 3 dry or moist
 Reaction—moderately acid or slightly acid
 Texture—very gravelly loam or cobbly loam

Bw horizon:

Hue—2.5Y or 10YR
 Value—6 or 7 dry, 4 or 5 moist
 Chroma—2 to 4 dry or moist
 Texture—very gravelly sandy loam, very gravelly loam, or very cobbly sandy loam
 Rock fragment content—45 to 60 percent

C horizon:

Value—4 or 5 moist
 Rock fragment content—60 to 80 percent
 Texture—extremely gravelly sandy loam or extremely cobbly sandy loam

Klug Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Xeric Haplocryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains

Parent material: Kind—colluvium; source—quartzite and granite

Slope range: 5 to 70 percent

Elevation: 6,000 to 9,000 feet

Average annual precipitation: 13 to 20 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free period: 20 to 70 days

Typical Pedon Location

Map unit in which located: Klug-Povey complex, 30 to 60 percent slopes

Location in survey area: Lemhi County, Idaho; about 4.5 miles southeast of Tendoy; about 2,200 feet north and 200 feet east of the southwest corner of sec. 2, T. 18 N., R. 24 E.; lat. 44°55'01" N., long. 113°35'09" W.

Typical Pedon

- A—0 to 4 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark brown (10YR 2/2) moist; moderate very fine and fine granular structure; soft, very friable, nonsticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular and tubular pores; 30 percent gravel; neutral (pH 7.0); clear wavy boundary.
- AB—4 to 9 inches; dark brown (10YR 3/3) very gravelly loam, very dark brown (10YR 2/2) moist; weak fine subangular blocky structure parting to weak very fine and fine granular; soft, very friable, nonsticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular and tubular pores; 40 percent gravel; neutral (pH 7.2); clear wavy boundary.
- Bw1—9 to 13 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores; 45 percent gravel and 3 percent cobbles; slightly alkaline (pH 7.4); clear wavy boundary.
- Bw2—13 to 20 inches; light yellowish brown (10YR 6/4) very gravelly loam, brown (10YR 4/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores; 50 percent gravel and 3 percent cobbles; slightly alkaline (pH 7.4); gradual wavy boundary.
- C1—20 to 37 inches; light yellowish brown (10YR 6/4) extremely gravelly sandy loam, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and slightly plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores; 55 percent gravel and 10 percent cobbles; slightly alkaline (pH 7.4); gradual wavy boundary.
- C2—37 to 60 inches; light yellowish brown (10YR 6/4) extremely gravelly loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; few very fine and fine roots; few very fine tubular pores; 40 percent gravel and 30 percent cobbles; slightly alkaline (pH 7.4).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F

Average summer soil temperature—49 to 54 degrees F
 Thickness of mollic epipedon—10 to 14 inches

Particle-size control section:

Clay content—12 to 20 percent
 Rock fragment content (average)—45 to 80 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist
 Texture—gravelly loam or very gravelly loam

Bw horizon:

Value—4 to 6 dry, 3 to 5 moist
 Chroma—3 or 4 dry or moist
 Texture—very gravelly loam or very gravelly sandy loam
 Reaction—neutral or slightly alkaline

C horizon:

Value—5 or 6 dry, 4 or 5 moist
 Chroma—2 to 4 dry or moist
 Texture—extremely gravelly loam or extremely gravelly sandy loam
 Rock fragment content—60 to 90 percent
 Reaction—neutral or slightly alkaline

Lacrol Series

Taxonomic classification: Fine, smectitic, frigid Vertic Palexerolls

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Position on landscape: Hills and mountains

Parent material: Kind—lacustrine sediment; source—mixed

Slope range: 15 to 35 percent

Elevation: 4,500 to 6,800 feet

Average annual precipitation: 13 to 18 inches

Average annual air temperature: 36 to 44 degrees F

Frost-free period: 30 to 100 days

Typical Pedon Location

Map unit in which located: Millhi-Lacrol association, 15 to 35 percent slopes

Location in survey area: Lemhi County, Idaho; about 2 miles southwest of Tendoy;
 about 1,800 feet north and 1,400 feet west of the southeast corner of sec. 25,
 T. 19 N., R. 23 E.; lat. 44°57'02" N., long. 113°40'23" W.

Typical Pedon

A—0 to 2 inches; brown (10YR 4/3) silt loam, very dark brown (10YR 2/2) moist; weak very fine and fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine irregular pores; 5 percent gravel and 2 percent cobbles; neutral (pH 7.0); clear wavy boundary.
 EB—2 to 7 inches; brown (10YR 5/3) clay loam, very dark grayish brown (10YR 3/2) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, moderately sticky and moderately plastic; common very fine and few fine and medium roots; common very fine irregular pores; 10 percent gravel; neutral (pH 7.0); abrupt wavy boundary.

- Bt—7 to 15 inches; brown (7.5YR 4/3) clay, dark brown (7.5YR 3/3) moist; moderate fine and medium prismatic structure parting to strong fine, medium, and coarse subangular blocky; extremely hard, extremely firm, very sticky and very plastic; few very fine and fine roots; few very fine irregular pores; many distinct clay films on faces of peds and in pores; 2 percent gravel; slightly alkaline (pH 7.4); clear wavy boundary.
- Btk1—15 to 25 inches; brown (7.5YR 5/4) clay, dark brown (7.5YR 3/4) moist; strong fine, medium, and coarse subangular blocky structure; very hard, very firm, very sticky and very plastic; few very fine and fine roots; few very fine irregular pores; many distinct clay films on faces of peds and in pores; slightly effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.
- Btk2—25 to 31 inches; brown (7.5YR 5/4) clay, dark brown (7.5YR 4/4) moist; strong fine, medium, and coarse subangular blocky structure; hard, firm, very sticky and very plastic; few very fine and fine roots; few very fine irregular pores; many prominent clay films on faces of peds and in pores; slightly effervescent; moderately alkaline (pH 8.4); gradual wavy boundary.
- Btk3—31 to 60 inches; light brown (7.5YR 6/4) clay, brown (7.5YR 5/4) moist; weak fine prismatic structure parting to strong fine, medium, and coarse subangular blocky; hard, firm, very sticky and moderately plastic; few very fine irregular pores; many faint clay films on faces of peds and in pores; slightly effervescent; strongly alkaline (pH 8.6).

Range in Characteristics

Profile:

Average annual soil temperature—41 to 45 degrees F

Thickness of mollic epipedon—7 to 16 inches

Depth to secondary carbonates—15 to 60 inches

Depth to perched high water table—4 to 8 inches in March through April

Total linear extensibility—6 to 8 centimeters

Depth to claypan—5 to 10 inches

Particle-size control section:

Clay content—40 to 60 percent

Rock fragment content—0 to 30 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Texture—silt loam or gravelly loam

EB horizon:

Hue—7.5YR or 10YR

Value—5 or 6 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Texture—loam, clay loam, or gravelly clay loam

Rock fragment content—0 to 20 percent

Bt horizon:

Hue—2.5Y, 7.5YR, or 10YR

Value—4 to 7 dry, 3 to 5 moist

Chroma—2 to 6 dry or moist

Texture—clay, gravelly clay, or silty clay

Btk horizon:

Hue—7.5YR or 10YR

Value—5 to 7 dry, 3 to 6 moist

Chroma—3 to 6 dry or moist

Texture—clay, gravelly clay, or silty clay
 Rock fragment content—0 to 20 percent

Lag Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Xeric Haplocryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid

Position on landscape: Mountains

Parent material: Kind—colluvium; source—mixed

Slope range: 20 to 70 percent

Elevation: 6,000 to 8,000 feet

Average annual precipitation: 20 to 24 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Lag very cobbly loam, 40 to 70 percent slopes

Location in survey area: Custer County, Idaho; about 7 miles northeast of Clayton; about 2,400 feet north and 1,500 feet east of the southwest corner of sec. 22, T. 12 N., R. 18 E.; lat. 44°21'18" N., long. 114°19'38" W.

Typical Pedon

Oi—2 inches to 1 inch; slightly decomposed needles, cones, and twigs.

Oe—1 inch to 0; moderately decomposed needles, cones, and twigs.

A—0 to 10 inches; dark brown (10YR 4/3) very cobbly loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; 20 percent gravel and 35 percent cobbles; neutral (pH 6.8); clear wavy boundary.

Bw1—10 to 22 inches; yellowish brown (10YR 5/4) extremely gravelly loam, dark brown (10YR 4/3) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; 70 percent gravel; neutral (pH 6.8); clear wavy boundary.

Bw2—22 to 35 inches; pale brown (10YR 6/3) extremely gravelly loam, dark brown (10YR 4/3) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine and fine irregular pores; 90 percent gravel; neutral (pH 7.0); clear wavy boundary.

C—35 to 61 inches; light brownish gray (10YR 6/2) extremely gravelly loam, dark grayish brown (10YR 4/2) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine and fine irregular pores; 90 percent gravel; thin silt accumulations on underside of some gravel; neutral (pH 7.2).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 40 degrees F

Average summer soil temperature—45 to 47 degrees F

Thickness of mollic epipedon—8 to 15 inches

Particle-size control section:

Rock fragment content—50 to 90 percent

Clay content—10 to 20 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 to 4 dry, 2 or 3 moist

Bw horizon:

Hue—7.5YR or 10YR

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Texture—very cobbly loam, very gravelly loam, or extremely gravelly loam

Rock fragment content—50 to 90 percent

C horizon:

Value—5 to 7 dry, 4 or 5 moist

Chroma—2 to 4 dry or moist

Texture—extremely cobbly sandy loam, extremely gravelly loam, or extremely cobbly loam

Rock fragment content—55 to 90 percent

Langer Series*Taxonomic classification:* Sandy-skeletal, mixed Xeric Haplocryolls*Depth class:* Very deep*Drainage class:* Somewhat excessively drained*Permeability:* Moderately rapid in the upper part and very rapid in the lower part*Position on landscape:* Hills and mountains*Parent material:* Kind—residuum and colluvium; source—granite*Slope range:* 10 to 40 percent*Elevation:* 6,400 to 6,800 feet*Average annual precipitation:* 13 to 16 inches*Average annual air temperature:* 34 to 37 degrees F*Frost-free period:* 15 to 40 days**Typical Pedon Location***Map unit in which located:* Langer gravelly sandy loam, 10 to 40 percent slopes*Location in survey area:* Custer County, Idaho; about 0.5 mile north of Stanley; about 1,700 feet north and 500 feet east of the southwest corner of sec. 3, T. 10 N., R. 13 E.**Typical Pedon**

A1—0 to 3 inches; dark grayish brown (10YR 4/2) gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium and coarse roots; common very fine and fine tubular and irregular pores; 25 percent fine gravel; slightly acid (pH 6.2); clear smooth boundary.

A2—3 to 9 inches; brown (10YR 4/3) gravelly sandy loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; common very fine and fine and few medium and coarse roots; common very fine and fine tubular and irregular pores; 25 percent fine gravel; slightly acid (pH 6.2); clear smooth boundary.

Bw—9 to 13 inches; brown (10YR 5/3) very gravelly coarse sandy loam, dark yellowish

brown (10YR 4/4) moist; weak fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; common very fine roots; many very fine and fine tubular and irregular pores; 35 percent fine gravel; moderately acid (pH 6.0); clear wavy boundary.

BC—13 to 43 inches; pale brown (10YR 6/3) very gravelly loamy coarse sand, brown (10YR 4/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; few very fine roots; common very fine and fine irregular pores; 45 percent fine gravel; lamellae along cracks at a depth of 36 inches; moderately acid (pH 6.0); gradual wavy boundary.

C1—43 to 54 inches; very pale brown (10YR 7/3) extremely gravelly loamy coarse sand, brown (10YR 5/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; few very fine roots; common fine and medium irregular pores; 80 percent fine gravel; lamellae along cracks; slightly acid (pH 6.2); gradual wavy boundary.

C2—54 to 60 inches; very pale brown (10YR 7/3) extremely gravelly loamy coarse sand, brown (10YR 5/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; common fine and medium irregular pores; 90 percent gravel; lamellae along cracks; slightly acid (pH 6.2).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 38 degrees F

Average summer soil temperature—44 to 49 degrees F

Thickness of mollic epipedon—7 to 12 inches

Base saturation in A horizon—55 to 65 percent

Depth to sand and gravel (BC horizon)—10 to 20 inches

Particle-size control section:

Clay content (average)—3 to 8 percent

Rock fragment content (average)—50 to 80 percent

A1 horizon:

Chroma—2 or 3 dry or moist

Reaction—slightly acid or moderately acid

Bw horizon:

Value—4 or 5 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Rock fragment content—35 to 45 percent

Reaction—slightly acid or moderately acid

BC horizon:

Value—5 or 6 dry, 4 or 5 moist

Texture—very gravelly loamy coarse sand, extremely gravelly coarse sand, or extremely gravelly loamy coarse sand

Rock fragment content—40 to 90 percent

Reaction—slightly acid or moderately acid

C horizon:

Value—6 or 7 dry

Chroma—3 or 4 dry or moist

Texture—extremely gravelly coarse sand, extremely gravelly loamy coarse sand, or very gravelly loamy coarse sand

Rock fragment content—40 to 90 percent

Reaction—neutral or slightly acid

Leadore Series

Taxonomic classification: Sandy-skeletal, mixed, frigid Xeric Haplocalcids

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Fan terraces and outwash fans

Parent material: Kind—alluvium; source—quartzite

Slope range: 1 to 8 percent

Elevation: 5,200 to 6,800 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free period: 50 to 85 days

Typical Pedon Location

Map unit in which located: Leadore gravelly loam, 2 to 6 percent slopes

Location in survey area: Lemhi County, Idaho; about 3.5 miles west of Leadore; about 1,700 feet north and 2,450 feet west of the southeast corner of sec. 36, T. 16 N., R. 25 E.

Typical Pedon

- A—0 to 3 inches; yellowish brown (10YR 5/4) gravelly loam, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure parting to weak very fine and fine granular; slightly hard, very friable, slightly sticky and slightly plastic; many very fine roots; many very fine irregular pores; 15 percent gravel; neutral (pH 7.2); clear wavy boundary.
- Bw—3 to 9 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; weak very fine, fine, and medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine irregular pores; 15 percent gravel; neutral (pH 7.3); gradual wavy boundary.
- Bk—9 to 16 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; weak very fine, fine, and medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine irregular pores; 25 percent gravel and 5 percent cobbles; lime and silica coatings less than 2 millimeters thick on underside of rock fragments; slightly effervescent; slightly alkaline (pH 7.5); abrupt wavy boundary.
- 2Bkq1—16 to 27 inches; very pale brown (10YR 7/3) extremely cobbly loamy sand, light yellowish brown (10YR 6/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine roots; many very fine and few fine and medium irregular pores; 40 percent gravel and 40 percent cobbles; lime and silica coatings less than 2 millimeters thick on underside of rock fragments cementing gravel and sand to rock fragments; discontinuous silica cap less than 1 millimeter thick at the boundary between the Bk and 2Bkq1 horizons; violently effervescent; moderately alkaline (pH 7.9); gradual wavy boundary.
- 2Bkq2—27 to 60 inches; multicolored extremely cobbly sand; single grain; loose, nonsticky and nonplastic; common very fine roots as mats on gravel and cobbles; many very fine, common fine, and few medium irregular pores; 40 percent gravel, 35 percent cobbles, and 5 percent stones; lime and silica coatings less than 2 millimeters thick on underside of rock fragments cementing fine gravel and sand to rock fragments; dominantly slightly effervescent with areas that are strongly effervescent; moderately alkaline (pH 8.3).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 41 degrees F
 Average summer soil temperature—59 to 61 degrees F
 Depth to calcic horizon—10 to 20 inches
 Depth to sand and gravel (2Bkq horizon)—10 to 20 inches

Particle-size control section:

Clay content (average)—3 to 12 percent
 Rock fragment content (average)—50 to 75 percent

A horizon:

Chroma—3 or 4 dry

Bw and Bk horizons:

Hue—7.5YR or 10YR
 Value—5 or 6 dry, 3 or 4 moist
 Chroma—3 to 6 dry or moist
 Texture—very gravelly loam, gravelly loam, or very gravelly sandy loam
 Rock fragment content—15 to 40 percent
 Calcium carbonate equivalent—0 to 5 percent

2Bkq horizon:

Texture—extremely cobbly loamy sand, extremely cobbly sand, or extremely gravelly loamy sand
 Rock fragment content—65 to 85 percent
 Calcium carbonate equivalent—10 to 25 percent

Leatherman Series

Taxonomic classification: Loamy-skeletal, carbonatic, shallow Duric Xeric Petrocryids

Depth class: Shallow to a duripan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Position on landscape: Fan terraces and outwash fans

Parent material: Kind—alluvium; source—limestone

Slope range: 2 to 8 percent

Elevation: 6,300 to 6,800 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Leatherman-Arbus complex, 2 to 6 percent slopes (fig. 10)

Location in survey area: Custer County, Idaho; about 13 miles south of Patterson; about 2,300 feet west and 1,200 feet north of the southeast corner of sec. 30, T. 12 N., R. 23 E.; lat. 44°20'14" N., long. 113°46'52" W.

Typical Pedon

A—0 to 5 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine tubular and irregular pores; 35 percent gravel; lime and silica

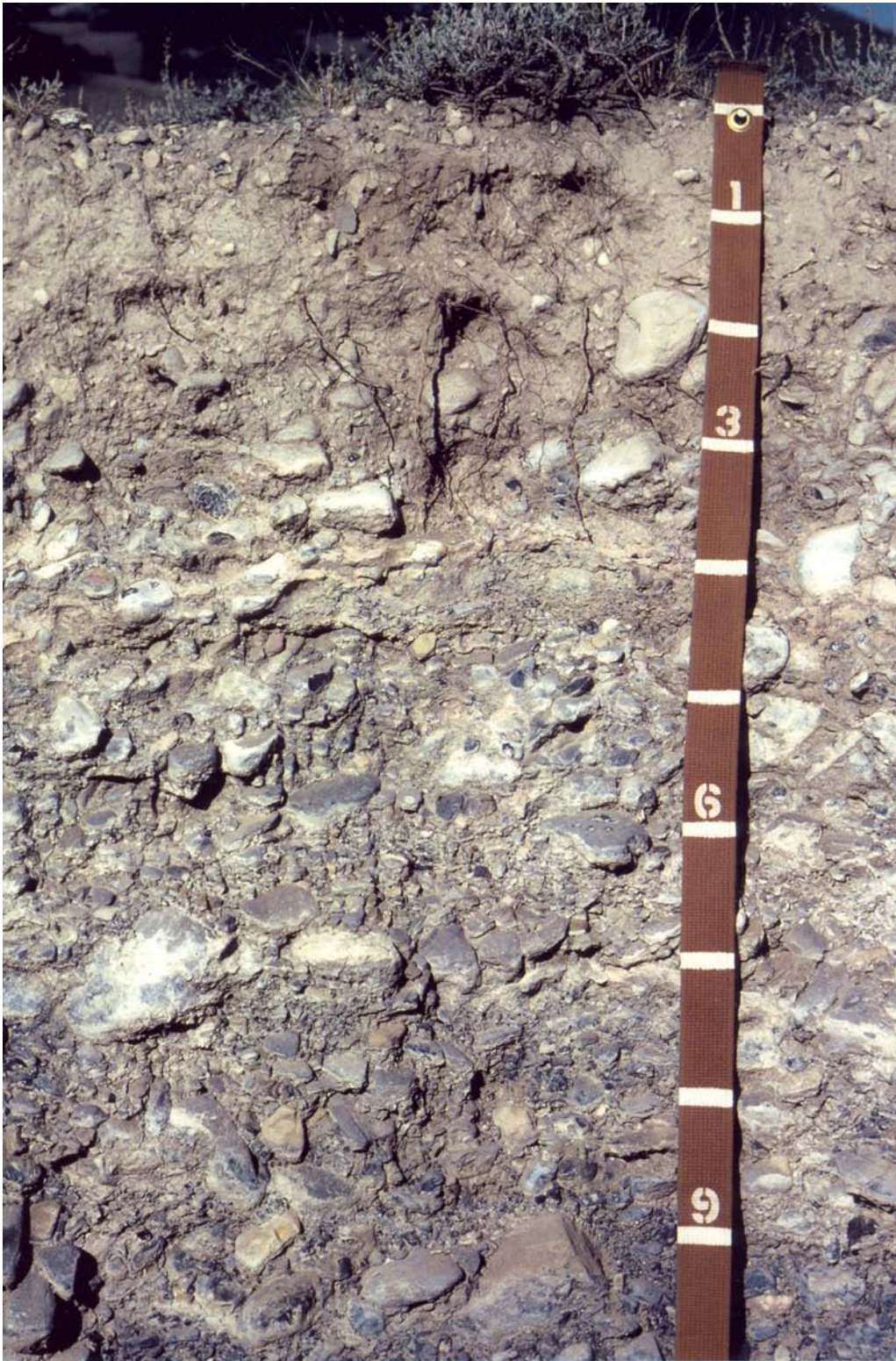


Figure 10.—Typical profile of Leatherman very gravelly loam in an area of Leatherman-Arbus complex, 2 to 6 percent slopes. This soil formed in alluvium derived from limestone. A duripan that restricts root penetration is at a depth of 30 centimeters (12 inches). The numerals on the tape are in decimeters.

coatings less than 2 millimeters thick on underside of rock fragments; strongly effervescent (50 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.

- Bk—5 to 11 inches; yellowish brown (10YR 5/4) very gravelly loam, brown (10YR 4/3) moist; weak very fine and fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine irregular pores and few very fine tubular pores; 55 percent gravel; lime and silica coatings less than 2 millimeters thick on underside of rock fragments; violently effervescent (more than 65 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); abrupt wavy boundary.
- 2Bkqm—11 to 16 inches; light brownish gray (10YR 6/2) indurated duripan, dark grayish brown (10YR 4/2) moist; massive; laminar cap less than 2 millimeters thick at a depth of 11 inches; 70 percent gravel and 5 percent cobbles; violently effervescent; moderately alkaline (pH 8.2); clear wavy boundary.
- 2Bkq—16 to 60 inches; light gray (10YR 7/2) extremely gravelly loamy sand, pale brown (10YR 6/3) moist; single grain; loose, nonsticky and nonplastic; many very fine and fine irregular pores; 65 percent gravel and 15 percent cobbles; silica and lime coatings less than 3 millimeters thick on underside of rock fragments cementing gravel and sand to rock fragments; violently effervescent; moderately alkaline (pH 8.4).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 42 degrees F
 Average summer soil temperature—55 to 59 degrees F
 Depth to duripan—9 to 15 inches
 Reaction—slightly alkaline to strongly alkaline

Particle-size control section:

Clay content—12 to 20 percent
 Rock fragment content—35 to 50 percent
 Calcium carbonate equivalent—45 to 75 percent

A horizon:

Value—3 to 5 moist
 Chroma—2 to 4 dry, 3 or 4 moist

Bk horizon:

Value—5 or 6 dry, 3 or 4 moist
 Chroma—3 or 4 dry
 Rock fragment content—50 to 60 percent

2Bkqm horizon:

Value—6 or 7 dry, 3 to 5 moist
 Chroma—2 to 4 dry or moist
 Rock fragment content—70 to 85 percent

2Bkq horizon:

Chroma—2 or 3 dry
 Texture—extremely gravelly loamy sand, extremely gravelly loamy coarse sand, or extremely gravelly sandy loam
 Rock fragment content—75 to 85 percent

Leecreek Series

Taxonomic classification: Sandy-skeletal, mixed Fluvaquentic Cryaquepts

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Flood plains and stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 3 percent

Elevation: 4,900 to 6,400 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 36 to 42 degrees F

Frost-free period: 50 to 70 days

Typical Pedon Location

Map unit in which located: Lemroi-Leecreek complex, 0 to 3 percent slopes

Location in survey area: Custer County, Idaho; about 3.5 miles northeast of Challis; about 600 feet north and 2,350 feet east of the southwest corner of sec. 14, T. 14 N., R. 19 E.; lat. 44°32'20" N., long. 114°10'59" W.

Typical Pedon

Oe—2 inches to 0; moderately decomposed grass and roots.

Akg—0 to 3 inches; grayish brown (2.5Y 5/2) silt loam, very dark grayish brown (2.5Y 3/2) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and common medium roots; common very fine and fine tubular pores; 5 percent gravel; violently effervescent; moderately alkaline (pH 8.0); clear smooth boundary.

Bkg1—3 to 6 inches; light brownish gray (2.5Y 6/2) silt loam, dark grayish brown (2.5Y 4/2) moist; few fine distinct masses of iron accumulation, light olive brown (2.5Y 5/4) moist; moderate medium subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; many very fine and fine and common medium roots; common very fine and fine tubular pores; 5 percent gravel; violently effervescent; moderately alkaline (pH 8.2); clear smooth boundary.

Bkg2—6 to 13 inches; light brownish gray (2.5Y 6/2) gravelly silt loam, dark grayish brown (2.5Y 4/2) moist; common fine prominent masses of iron accumulation, light olive brown (2.5Y 5/4) moist; moderate medium subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common very fine and fine roots; common very fine and fine tubular pores; 25 percent gravel; violently effervescent; moderately alkaline (pH 8.2); clear wavy boundary.

Bkg3—13 to 18 inches; light brownish gray (2.5Y 6/2) very gravelly silt loam, dark grayish brown (2.5Y 4/2) moist; few fine prominent masses of iron accumulation, light olive brown (2.5Y 5/4) moist; moderate medium subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; few very fine and fine roots; common very fine and fine tubular pores; 40 percent gravel; violently effervescent; moderately alkaline (pH 8.4); clear wavy boundary.

2Bk—18 to 60 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose, nonsticky and nonplastic; few very fine roots; common fine irregular pores; 75 percent gravel and 10 percent cobbles; lime coatings on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 40 degrees F

Depth to high water table—12 to 18 inches in April through October

Time of year flooding occurs—January through June

Depth to sand and gravel (2Bk horizon)—13 to 22 inches

Particle-size control section:

Clay content (average)—5 to 10 percent

Rock fragment content—averages 35 to 75 percent with 5 to 40 percent in the upper part and 60 to 90 percent in the lower part

Akg horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Bkg horizon:

Value—5 to 7 dry, 4 or 5 moist

Chroma—2 or 3 dry or moist

Texture—silt loam, gravelly silt loam, or very gravelly silt loam

Clay content—5 to 25 percent

2Bk horizon:

Texture—extremely gravelly loamy sand or extremely gravelly loamy coarse sand

Clay content—0 to 5 percent

Lemco Series*Taxonomic classification:* Clayey-skeletal, smectitic Abruptic Argicryolls*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Slow*Position on landscape:* Mountains*Parent material:* Kind—colluvium; source—quartzite*Slope range:* 20 to 50 percent*Elevation:* 6,500 to 7,500 feet*Average annual precipitation:* 20 to 22 inches*Average annual air temperature:* 35 to 38 degrees F*Frost-free period:* 30 to 60 days**Typical Pedon Location***Map unit in which located:* Lemco-Friedman complex, 20 to 50 percent slopes*Location in survey area:* Lemhi County, Idaho; about 12 miles south of Salmon; about 1,250 feet south and 1,550 feet west of the northeast corner of sec. 3, T. 19 N., R. 21 E.**Typical Pedon**

Oi—1 inch to 0; slightly decomposed needles and twigs.

A1—0 to 4 inches; dark grayish brown (10YR 4/2) loam, black (10YR 2/1) moist; moderate very thin and thin platy structure parting to weak very fine granular; soft, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine irregular pores; neutral (pH 6.8); clear wavy boundary.

A2—4 to 11 inches; dark grayish brown (10YR 4/2) loam, very dark brown (10YR 2/2) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine, fine, medium, and coarse roots; common very fine and few fine tubular pores and common very fine irregular pores; 5 percent gravel; neutral (pH 6.8); clear wavy boundary.

Bt1—11 to 19 inches; brown (10YR 5/3) very gravelly clay, dark brown (10YR 4/3) moist; common very fine and fine subangular blocky structure; very hard, firm, moderately sticky and very plastic; many very fine and common fine and medium roots; common very fine and few fine tubular pores; many distinct clay films on

faces of peds and in pores; 35 percent gravel; neutral (pH 7.0); clear wavy boundary.

Bt2—19 to 36 inches; brown (10YR 5/3) very gravelly clay, dark brown (10YR 4/3) moist; strong fine and medium subangular blocky structure; very hard, very firm, moderately sticky and moderately plastic; few very fine, fine, and medium roots; common very fine tubular pores; many distinct clay films on faces of peds and in pores; 40 percent gravel; neutral (pH 7.0); gradual irregular boundary.

2BC—36 to 48 inches; brown (10YR 4/3) gravelly clay loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, moderately sticky and moderately plastic; few very fine, fine, medium, and coarse roots; many very fine irregular pores and few very fine tubular pores; 25 percent gravel; neutral (pH 7.2); gradual wavy boundary.

2C—48 to 61 inches; dark yellowish brown (10YR 4/4) gravelly loam, dark brown (10YR 3/3) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine irregular pores and few very fine tubular pores; 30 percent gravel; neutral (pH 7.2).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F
 Average summer soil temperature—44 to 47 degrees F
 Thickness of mollic epipedon—10 to 15 inches
 Reaction—slightly acid to slightly alkaline
 Depth to claypan—10 to 15 inches

Particle-size control section:

Clay content—40 to 50 percent
 Rock fragment content—35 to 50 percent

A horizon:

Hue—7.5YR or 10YR
 Value—4 or 5 dry, 2 or 3 moist
 Chroma—1 to 3 dry or moist

Bt horizon:

Hue—7.5YR or 10YR
 Value—4 to 6 dry, 3 to 5 moist
 Chroma—2 to 4 dry or moist

2C horizon:

Hue—7.5YR or 10YR
 Value—4 to 6 dry, 3 to 5 moist
 Chroma—3 to 5 dry or moist

Lemhi Series

Taxonomic classification: Fine-loamy over sandy or sandy-skeletal, mixed, superactive
 Cumulic Cryaquolls

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in upper part and very rapid in lower part

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope: 0 to 2 percent

Elevation: 5,000 to 5,600 feet

Average annual precipitation: 10 to 14 inches
Average annual air temperature: 38 to 42 degrees F
Frost-free period: 50 to 70 days

Typical Pedon Location

Map unit in which located: Lemhi-Copperbasin-Lilylake complex, 0 to 2 percent slopes
Location in survey area: Lemhi County, Idaho; about 2 miles southeast of Lemhi; about 100 feet west and 200 feet south of the northeast corner of sec. 9, T. 17 N., R. 24 E.; lat. 44°49'30" N., long. 113°36'00" W.

Typical Pedon

- Oi—3 inches to 0; slightly decomposed roots, leaves, and stems.
- A—0 to 6 inches; dark gray (10YR 4/1) loam, black (10YR 2/1) moist; moderate medium granular structure; slightly hard, friable, slightly sticky and plastic; many very fine and fine and common medium roots; many very fine tubular pores; slightly effervescent (5 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); clear smooth boundary.
- Bk—6 to 13 inches; dark gray (10YR 4/1) loam, black (10YR 2/1) moist; moderate fine and medium subangular blocky structure; hard, friable, slightly sticky and plastic; common very fine and fine and few medium roots; many very fine tubular pores; slightly effervescent (4 percent calcium carbonate equivalent); common fine and medium soft masses and seams of segregated lime; moderately alkaline (pH 8.4); clear smooth boundary.
- Bg—13 to 21 inches; grayish brown (2.5Y 5/2) loam, very dark grayish brown (2.5Y 3/2) moist; common medium faint masses of iron depletion, black (2.5Y 2/2) moist; moderate medium subangular blocky structure; very hard, friable, slightly sticky and plastic; few very fine, fine, and medium roots; many very fine tubular pores; thin discontinuous strata of dark grayish brown (2.5Y 4/2) loamy sand with common fine and medium prominent masses of iron depletion, very dark brown (10YR 2/2) and dark yellowish brown (10YR 3/4) moist; neutral (pH 7.3); abrupt wavy boundary.
- 2Cg1—21 to 24 inches; grayish brown (2.5Y 5/2) loamy sand, dark grayish brown (2.5Y 4/2) moist; common medium prominent masses of iron depletion, olive (5Y 4/3) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine irregular pores; 5 percent gravel; neutral (pH 7.3); abrupt wavy boundary.
- 2Cg2—24 to 60 inches; multicolored, dominantly olive gray (5Y 5/2) extremely gravelly coarse sand, olive gray (5Y 4/2) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; many very fine irregular pores; 60 percent gravel and 20 percent cobbles; neutral (pH 6.8).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 42 degrees F
 Average summer soil temperature—49 to 55 degrees F
 Thickness of mollic epipedon—20 to 30 inches
 Depth to high water table—12 to 18 inches in April through June
 Time of year flooding occurs—January through June
 Depth to sand and gravel (2Cg horizon)—20 to 40 inches

Particle-size control section:

Clay content—18 to 26 percent in upper part and 5 to 10 percent in lower part
 Rock fragment content—0 to 5 percent in upper part and 5 to 80 percent in lower part

A and Bk horizons:

Value—2 or 3 moist
 Chroma—1 or 2 moist

Calcium carbonate equivalent—2 to 10 percent
 Reaction—slightly alkaline or moderately alkaline

Bg horizon:

Hue—10YR or 2.5Y
 Value—4 or 5 dry, 3 or 4 moist
 Chroma—1 or 2 dry or moist
 Texture—loam or silt loam
 Clay content—18 to 26 percent

2Cg1 horizon:

Hue—2.5Y or 5Y
 Value—4 or 5 dry or moist
 Texture—loamy sand or gravelly loamy sand
 Coarse fragment content—5 to 20 percent

2Cg2 horizon:

Hue—2.5Y or 5Y
 Value—4 or 5 dry or moist
 Texture—extremely gravelly coarse sand or extremely gravelly loamy coarse sand
 Rock fragment content—60 to 80 percent

Lemroi Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Typic Cryaquolls

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Flood plains and stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 3 percent

Elevation: 4,900 to 7,400 feet

Average annual precipitation: 8 to 18 inches

Average annual air temperature: 36 to 42 degrees F

Frost-free period: 30 to 70 days

Typical Pedon Location

Map unit in which located: Fezip-Lemroi-Redfish complex, 0 to 2 percent slopes

Location in survey area: Lemhi County, Idaho; about 2 miles southwest of May; about 1,000 feet east and 1,100 feet south of the northwest corner of sec. 36, T. 15 N., R. 21 E.; lat. 44°35'30" N., long. 113°55'40" W.

Typical Pedon

Oe—3 inches to 0; moderately decomposed grass and roots.

A—0 to 8 inches; dark gray (10YR 4/1) silt loam, black (10YR 2/1) moist; weak fine granular structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and common medium roots; common very fine and fine tubular pores; 2 percent gravel; moderately alkaline (pH 8.0); clear smooth boundary.

A2—8 to 11 inches; dark gray (10YR 4/1) silt loam, black (10YR 2/1) moist; few fine distinct dark grayish brown (10YR 4/2) masses of iron depletion; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and common medium roots; common very fine and fine tubular pores; 5 percent gravel; moderately alkaline (pH 7.8); clear smooth boundary.

A3—11 to 15 inches; dark gray (10YR 4/1) gravelly silt loam, black (10YR 2/1) moist;

common fine prominent light olive brown (2.5Y 5/4) masses of iron depletion; moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine and fine tubular pores; 15 percent gravel; moderately alkaline (pH 7.8); clear wavy boundary.

Bg—15 to 23 inches; light gray (10YR 7/1) extremely gravelly loam, dark grayish brown (2.5Y 4/2) moist; moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine tubular pores; 70 percent fine gravel and 5 percent cobbles; moderately alkaline (pH 7.8); clear wavy boundary.

2Cg—23 to 60 inches; gray (10YR 6/1) extremely gravelly loamy coarse sand, dark grayish brown (2.5Y 4/2) moist; single grain; loose, nonsticky and nonplastic; few very fine roots; common fine irregular pores; 75 percent gravel and 10 percent cobbles; moderately alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—34 to 36 degrees F

Depth to high water table—6 to 18 inches in April through October

Time of year flooding occurs—January through June

Depth to sand and gravel (2Cg horizon)—20 to 30 inches

Particle-size control section:

Clay content (average)—5 to 18 percent

Rock fragment content (average)—35 to 75 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Bg horizon:

Texture—extremely gravelly loam or extremely gravelly sandy loam

Rock fragment content—60 to 90 percent

2Cg horizon:

Texture—extremely gravelly loamy sand or extremely gravelly loamy coarse sand

Rock fragment content—60 to 90 percent

Lesbut Series

Taxonomic classification: Sandy-skeletal, mixed, frigid Calcic Haploxerolls

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Stream terraces and fan terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 4 percent

Elevation: 5,200 to 6,600 feet

Average annual precipitation: 11 to 13 inches

Average annual air temperature: 38 to 40 degrees F

Frost-free period: 65 to 90 days

Typical Pedon Location

Map unit in which located: Darlington-Lesbut complex, 1 to 4 percent slopes

Location in survey area: Butte County, Idaho; about 2 miles southeast of Darlington;

about 1,000 feet south and 750 feet east of the northwest corner of sec. 8, T. 5 N., R. 26 E.; lat. 43°47'50" N., long. 113°23'37" W.

Typical Pedon

- Ap—0 to 4 inches; brown (10YR 4/3) gravelly loam, dark brown (10YR 3/3) moist; weak thick and medium platy structure; soft, very friable, slightly sticky and nonplastic; common very fine and coarse roots; many very fine and fine irregular pores; 30 percent gravel; neutral (pH 7.0); abrupt wavy boundary.
- Bt—4 to 8 inches; brown (10YR 4/3) gravelly loam, dark brown (10YR 3/3) moist; weak and moderate coarse and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and medium roots; many very fine and fine irregular pores; few faint clay films on faces of peds; 30 percent gravel; neutral (pH 7.0); clear wavy boundary.
- Bw—8 to 13 inches; brown (10YR 4/3) very gravelly loam, dark brown (10YR 3/3) moist; weak and moderate medium and fine subangular blocky structure; soft, friable, slightly sticky and nonplastic; common very fine and medium roots; many very fine and fine irregular pores; 30 percent gravel and 15 percent cobbles; neutral (pH 7.0); clear wavy boundary.
- Bk1—13 to 18 inches; brown (10YR 4/3) extremely gravelly sandy loam, dark brown (10YR 3/3) moist; weak coarse subangular blocky structure; soft, very friable, slightly sticky and nonplastic; common very fine and medium roots; many very fine and fine irregular pores; 55 percent gravel and 10 percent cobbles; lime coatings 0.5 to 1.0 millimeter thick on underside of rock fragments; slightly alkaline (pH 7.4); clear wavy boundary.
- 2Bk2—18 to 27 inches; multicolored extremely gravelly sand; single grain; loose, nonsticky and nonplastic; common very fine and few fine and medium roots; common medium and coarse irregular pores; 60 percent gravel and 20 percent cobbles; lime coatings 0.5 to 1.0 millimeter thick on underside of rock fragments; slightly effervescent; slightly alkaline (pH 7.4); clear wavy boundary.
- 2Bk3—27 to 43 inches; multicolored extremely cobbly coarse sand; weak coarse subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine and few fine and medium roots; common medium and coarse irregular pores; 40 percent gravel and 40 percent cobbles; lime coatings 0.5 to 1.0 millimeter thick on underside of rock fragments; slightly effervescent; slightly alkaline (pH 7.6); gradual irregular boundary.
- 2Bkq—43 to 60 inches; multicolored extremely cobbly coarse sand; single grain; loose, nonsticky and nonplastic; common very fine roots; common medium and coarse irregular pores; 45 percent gravel and 40 percent cobbles; lime and silica coatings and pendants 0.5 to 2.0 millimeters thick on underside of rock fragments; slightly effervescent; slightly alkaline (pH 7.6).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 44 degrees F

Thickness of mollic epipedon—10 to 18 inches

Depth to secondary carbonates—10 to 17 inches

Reaction—neutral or slightly alkaline

Depth to sand and gravel (2Bk horizon)—10 to 20 inches

Particle-size control section:

Clay content (average)—8 to 15 percent

A horizon:

Value—4 or 5 dry

Chroma—2 or 3 moist

Bt horizon (where present):

Value—4 to 6 dry

Chroma—3 or 4 dry or moist

Rock fragment content—15 to 30 percent

Bw horizon:

Value—4 to 6 dry

Chroma—3 or 4 dry or moist

Rock fragment content—35 to 50 percent

Bk horizon:

Value—3 to 5 dry or moist

Chroma—3 or 4 dry or moist

Rock fragment content—50 to 65 percent

Texture—extremely gravelly sandy loam or very gravelly loam

2Bk and 2Bkq horizons:

Rock fragment content—60 to 85 percent

Texture—stratified cobbly coarse sand to extremely gravelly loamy sand

Lilylake Series*Taxonomic classification:* Sandy-skeletal, mixed Histic Cryaquepts*Depth class:* Very deep*Drainage class:* Very poorly drained*Permeability:* Rapid*Position on landscape:* Flood plains and depressions on terraces*Parent material:* Kind—organic material derived from herbaceous plants over alluvium;
source—mixed*Slope range:* 0 to 2 percent*Elevation:* 5,000 to 7,300 feet*Average annual precipitation:* 10 to 16 inches*Average annual air temperature:* 34 to 42 degrees F*Frost-free period:* 5 to 70 days**Typical Pedon Location***Map unit in which located:* Lilylake-Grandjean complex, 0 to 2 percent slopes*Location in survey area:* Blaine County, Idaho; about 1 mile northeast of Pettit Lake;
about 1,800 feet north and 2,000 feet west of the southeast corner of sec. 29,
T. 8 N., R. 14 E.; lat. 43°59'22" N., long. 114°50'24" W.**Typical Pedon**

Oa1—0 to 3 inches; muck that is black (10YR 2/1) moist on broken face and when rubbed; about 25 percent fibers, 5 percent rubbed; weak medium granular structure; many very fine and fine and few coarse roots; slightly acid (pH 6.2); clear smooth boundary.

Oa2—3 to 9 inches; muck that is very dark brown (10YR 2/2) moist on broken face and when rubbed; about 30 percent fibers, 10 percent when rubbed; massive; many very fine and fine and few coarse roots; moderately acid (pH 6.0); clear wavy boundary.

Oa3—9 to 12 inches; muck that is very dark brown (10YR 2/2) moist on broken face and black (10YR 2/1) moist when rubbed; about 40 percent fibers, 5 percent when rubbed; massive; many very fine and few coarse roots; moderately acid (pH 6.0); clear wavy boundary.

2C1—12 to 15 inches; brown (10YR 5/3) sand, dark grayish brown (2.5Y 4/2) moist; common fine and medium prominent masses of iron accumulation, brown (7.5YR

4/4) and strong brown (7.5YR 4/6) moist; single grain; loose, nonsticky and nonplastic; many very fine and fine irregular pores; 5 percent gravel; slightly acid (pH 6.4); abrupt wavy boundary.

2C2—15 to 60 inches; light brownish gray (2.5Y 6/2) extremely gravelly coarse sand, dark grayish brown (2.5Y 4/2) moist; many coarse prominent masses of iron accumulation, brown (7.5YR 4/4) and strong brown (7.5YR 4/6) moist; single grain; loose, nonsticky and nonplastic; many fine and medium irregular pores; 50 percent gravel, 25 percent cobbles, and 1 percent stones; slightly acid (pH 6.4).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 40 degrees F

Average summer soil temperature—40 to 43 degrees F

Depth to high water table—6 inches above the surface to a depth of 6 inches below the surface in January through December

Time of year flooding occurs—January through June

Depth to sand and gravel (2C horizon)—10 to 16 inches

Particle-size control section:

Clay content—0 to 5 percent

Rock fragment content (average)—60 to 90 percent

Oa horizon:

Value—1 to 3 moist

Chroma—1 or 2 moist

Reaction—slightly acid or moderately acid

2C horizon:

Hue—2.5Y, 5Y, or 10YR

Value—4 to 6 dry or moist

Chroma—2 or 3 dry or moist

Texture—sand, coarse sand, or gravelly coarse sand in the upper part and extremely cobbly coarse sand, extremely gravelly coarse sand, or extremely gravelly loamy coarse sand in the lower part

Reaction—neutral or slightly acid

Mahaffey Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Typic Cryaquolls

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and rapid in the lower part

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 4,500 to 6,000 feet

Average annual precipitation: 10 to 14 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free period: 50 to 70 days

Typical Pedon Location

Map unit in which located: Mahaffey-Copperbasin-Wiskisprings complex, 0 to 2 percent slopes

Location in survey area: Lemhi County, Idaho; about 1 mile northwest of Lemhi; about

2,300 feet south and 900 feet east of the northwest corner of sec. 29, T. 18 N., R. 24 E.; lat. 44°52'08" N., long. 113°37'32" W.

Typical Pedon

- A1—0 to 4 inches; dark grayish brown (10YR 4/2) loam, black (10YR 2/1) moist; strong medium granular structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; neutral (pH 7.0); clear smooth boundary.
- A2—4 to 12 inches; dark grayish brown (10YR 4/2) loam, black (10YR 2/1) moist; common fine distinct masses of iron accumulation, strong brown (7.5YR 5/6) moist, and few fine prominent masses of iron depletion, black (N 2/0) moist; moderate fine and medium subangular blocky structure; soft, friable, slightly sticky and slightly plastic; many very fine, fine, and medium roots; many very fine and fine irregular pores; slightly acid (pH 6.2); clear wavy boundary.
- Bg—12 to 23 inches; light brownish gray (10YR 6/2) loam, very dark grayish brown (10YR 3/2) moist; many medium distinct masses of iron depletion, dark grayish brown (10YR 4/2) moist, and common medium prominent masses of iron accumulation, yellowish brown (10YR 5/8) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine irregular pores; slightly acid (pH 6.5); clear wavy boundary.
- 2Cg1—23 to 34 inches; gray (10YR 5/1) extremely gravelly sandy loam, dark grayish brown (10YR 4/2) moist; many medium prominent masses of iron accumulation, reddish yellow (7.5YR 6/8) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and fine roots; common fine and medium irregular pores; 45 percent gravel and 20 percent cobbles; neutral (pH 6.7); gradual wavy boundary.
- 2Cg2—34 to 61 inches; multicolored extremely cobbly loamy coarse sand; many large prominent masses of iron accumulation, reddish yellow (7.5YR 6/8) moist on sand grains and rock fragments; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; few fine and medium irregular pores; 30 percent gravel, 35 percent cobbles, and 15 percent stones; slightly acid (pH 6.5).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 45 degrees F
 Average summer soil temperature—49 to 54 degrees F
 Thickness of mollic epipedon—10 to 14 inches
 Reaction—slightly acid or neutral
 Depth to sand and gravel (2Cg2 horizon)—30 to 40 inches
 Depth to high water table—24 to 42 inches in April through June
 Time of year flooding occurs—January through June

Particle-size control section:

Clay content (average)—8 to 14 percent
 Rock fragment content (average)—45 to 65 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—1 or 2 dry or moist

Bg horizon:

Chroma—1 or 2 dry or moist
 Texture—loam or silt loam

2Cg1 horizon:

Value—5 or 6 dry

Chroma—1 or 2 dry or moist

Texture—extremely gravelly sandy loam or extremely gravelly coarse sandy loam

Rock fragment content—65 to 85 percent

2Cg2 horizon:

Texture—extremely cobbly loamy coarse sand or extremely gravelly loamy sand

Rock fragment content—65 to 90 percent

Meegernot Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Calcic Pachic Haplocryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate and moderately slow in the upper part and rapid in the lower part

Position on landscape: Mountains

Parent material: Kind—colluvium; source—limestone

Slope range: 15 to 40 percent

Elevation: 7,000 to 9,200 feet

Average annual precipitation: 16 to 19 inches

Average annual air temperature: 34 to 38 degrees F

Frost-free period: 10 to 30 days

Typical Pedon Location

Map unit in which located: Zeelnot-Meegernot-Adek association, 5 to 40 percent slopes

Location in survey area: Custer County, Idaho; about 5 miles southeast of Willow Creek Summit; about 1,800 feet north and 200 feet west of the southeast corner of sec. 19, T. 11 N., R. 21 E.; lat. 44°16'01" N., long. 114°00'12" W.

Typical Pedon

A1—0 to 10 inches; very dark grayish brown (10YR 3/2) gravelly loam, very dark brown (10YR 2/2) moist; weak very fine and fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine irregular pores; 20 percent gravel and 5 percent cobbles; neutral (pH 7.2); clear wavy boundary.

A2—10 to 16 inches; dark brown (10YR 3/3) gravelly loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine irregular pores; 25 percent gravel and 5 percent cobbles; slightly effervescent; slightly alkaline (pH 7.4); gradual wavy boundary.

Bk1—16 to 21 inches; brown (10YR 4/3) very gravelly loam, brown (10YR 4/3) moist; weak fine subangular blocky structure; soft, friable, slightly sticky and slightly plastic; common very fine, fine, and medium roots; common very fine and fine irregular pores; 45 percent gravel and 5 percent cobbles; lime coatings less than 1 millimeter thick on underside of some rock fragments; slightly effervescent; slightly alkaline (pH 7.5); gradual wavy boundary.

Bk2—21 to 28 inches; yellowish brown (10YR 5/4) extremely gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; common very fine and fine irregular pores; 65 percent gravel; common thin lime coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.5); gradual wavy boundary.

- Bkq—28 to 41 inches; dark yellowish brown (10YR 4/4) extremely gravelly loam, dark yellowish brown (10YR 4/4) moist; common fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and medium roots; many very fine and fine irregular pores; 65 percent gravel; thin lime and silica coatings less than 2 millimeters thick on underside and some sides of rock fragments; violently effervescent; slightly alkaline (pH 7.6); clear wavy boundary.
- Btb—41 to 58 inches; light yellowish brown (10YR 6/4) extremely gravelly clay loam, yellowish brown (10YR 5/6) moist; common fine subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; few very fine roots; many very fine and fine irregular pores; many distinct clay films on faces of peds and in pores; 80 percent gravel; slightly effervescent; slightly alkaline (pH 7.5); abrupt wavy boundary.
- 2C—58 to 66 inches; light yellowish brown (10YR 6/4) extremely gravelly loamy coarse sand, yellowish brown (10YR 5/4) moist; single grain; loose, nonsticky and nonplastic; few very fine and medium roots; many very fine and fine irregular pores; 90 percent gravel; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 40 degrees F
 Average summer soil temperature—46 to 50 degrees F
 Thickness of mollic epipedon—16 to 21 inches
 Depth to calcic horizon—16 to 21 inches
 Depth to sand and gravel (2C horizon)—40 to 60 inches

Particle-size control section:

Clay content—20 to 26 percent
 Rock fragment content—45 to 70 percent
 Calcium carbonate equivalent—15 to 35 percent

A horizon:

Value—3 or 4 dry, 2 or 3 moist
 Chroma—2 or 3 dry, 1 or 2 moist
 Reaction—neutral or slightly alkaline

Bk horizon:

Value—4 or 5 dry, 3 or 4 moist
 Chroma—2 to 4 dry or moist
 Texture—very gravelly loam or extremely gravelly loam
 Rock fragment content—45 to 70 percent

The 2C horizon is absent in some pedons.

Meegero Series

Taxonomic classification: Loamy-skeletal, carbonatic Pachic Calcicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains, hills, and fan terraces

Parent material: Kind—colluvium; source—limestone and calcareous shale

Slope range: 4 to 45 percent

Elevation: 6,500 to 8,600 feet

Average annual precipitation: 12 to 20 inches

Average annual air temperature: 34 to 42 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Zeale-Meegero complex, 20 to 40 percent slopes

Location in survey area: Custer County, Idaho; 21 miles north of Mackay; about 1,600 feet south and 2,050 feet west of the northeast corner of sec. 13, T. 10 N., R. 24 E.; lat. 44°11'58" N., long. 113°33'32" W.

Typical Pedon

- A—0 to 10 inches; dark brown (10YR 3/3) loam, very dark brown (10YR 2/2) moist; moderate very fine and fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine tubular pores; 10 percent gravel; slightly effervescent (7 percent calcium carbonate equivalent); neutral (pH 6.8); clear smooth boundary.
- Bk1—10 to 19 inches; dark brown (10YR 3/3) gravelly loam, very dark brown (10YR 2/2) moist; weak fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine tubular pores; 25 percent gravel; lime coatings less than 1 millimeter thick on underside of some rock fragments; strongly effervescent (30 percent calcium carbonate equivalent); neutral (pH 6.9); clear wavy boundary.
- Bk2—19 to 29 inches; light yellowish brown (10YR 6/4) very gravelly loam, yellowish brown (10YR 5/4) moist; moderate fine subangular blocky structure; slightly hard, very friable, sticky and plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores; 35 percent gravel and 20 percent cobbles; lime coatings 1 to 2 millimeters thick on underside and sides of rock fragments; common soft secondary lime segregated in fine irregularly shaped filaments and soft masses; common pressure faces on faces of peds; strongly effervescent (40 percent calcium carbonate equivalent); moderately alkaline (pH 8.1); clear wavy boundary.
- Bk3—29 to 50 inches; very pale brown (10YR 7/4) extremely cobbly loam, light yellowish brown (10YR 6/4) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and few fine roots; few very fine and fine tubular pores; 35 percent gravel and 35 percent cobbles; lime coatings 1 to 3 millimeters thick on all sides of rock fragments; common soft secondary lime segregated in fine and medium irregularly shaped filaments and soft masses; violently effervescent (55 percent calcium carbonate equivalent); strongly alkaline (pH 8.6); gradual wavy boundary.
- Bk4—50 to 60 inches; light gray (2.5Y 7/2) extremely cobbly loam, light yellowish brown (2.5Y 6/4) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; few very fine tubular pores; 35 percent gravel and 35 percent cobbles; lime coatings 1 to 2 millimeters thick on all sides of rock fragments; common soft secondary lime segregated in fine and medium irregularly shaped filaments and soft masses; violently effervescent (45 percent calcium carbonate equivalent); strongly alkaline (pH 8.9).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 43 degrees F

Average summer soil temperature—47 to 50 degrees F

Thickness of mollic epipedon—17 to 28 inches

Depth to calcic horizon—17 to 28 inches

Particle-size control section:

Clay content (average)—12 to 24 percent

Rock fragment content—35 to 70 percent
 Calcium carbonate equivalent (average)—40 to 55 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist

Bk1 horizon:

Hue—7.5YR or 10YR
 Value—3 to 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist
 Texture—gravelly loam or gravelly silt loam
 Rock fragment content—20 to 35 percent
 Reaction—neutral to moderately alkaline

Bk2, Bk3, and Bk4 horizons:

Hue—2.5Y, 7.5YR, or 10YR
 Value—5 to 8 dry, 4 to 7 moist
 Chroma—2 to 4 dry or moist
 Texture—extremely gravelly loam, extremely cobbly loam, very gravelly loam, or extremely cobbly sandy loam
 Rock fragment content—50 to 90 percent
 Reaction—slightly alkaline to strongly alkaline

Millhi Series

Taxonomic classification: Fine, smectitic, frigid Vertic Natrargids

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Position on landscape: Lacustrine terraces and hills

Parent material: Kind—lacustrine sediment; source—mixed

Slope range: 2 to 50 percent

Elevation: 3,900 to 5,200 feet

Average annual precipitation: 7 to 10 inches

Average annual air temperature: 42 to 45 degrees F

Frost-free period: 75 to 100 days

Typical Pedon Location

Map unit in which located: Millhi gravelly silt loam, 5 to 15 percent slopes

Location in survey area: Lemhi County, Idaho; about 1.5 miles southwest of Tendoy; about 2,300 feet north and 400 feet east of the southwest corner of sec. 30, T. 19 N., R. 24 E.; lat. 44°56'48" N., long. 113°40'00" W.

Typical Pedon

A—0 to 2 inches; brown (10YR 5/3) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak very fine and fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine irregular pores; 30 percent gravel on surface and 25 percent gravel in horizon; moderately alkaline (pH 8.0); clear wavy boundary.

E—2 to 4 inches; pale brown (10YR 6/3) gravelly silt loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; many very fine irregular pores; 15 percent gravel; moderately alkaline (pH 8.0); abrupt wavy boundary.

- Btn—4 to 9 inches; pinkish gray (7.5YR 6/2) clay, brown (7.5YR 4/4) crushed, dark yellowish brown (10YR 3/4) moist; moderate very fine and fine prismatic structure parting to strong fine and medium subangular blocky; very hard, very firm, moderately sticky and moderately plastic; common very fine and few fine, medium, and coarse roots; few very fine irregular pores; many distinct clay films on faces of peds and in pores; skeletal on tops and sides of peds at upper boundary; 2 percent gravel; moderately alkaline (pH 8.0); clear wavy boundary.
- Btkn1—9 to 13 inches; pale brown (10YR 6/3) clay loam, dark brown (10YR 4/3) moist; moderate very fine and fine subangular blocky structure; hard, friable, moderately sticky and moderately plastic; common very fine and few fine and medium roots; common very fine irregular pores; many distinct clay films on faces of peds and in pores; 2 percent gravel; slightly effervescent; strongly alkaline (pH 8.8); clear wavy boundary.
- Btkn2—13 to 17 inches; pale brown (10YR 6/3) clay loam, dark brown (10YR 4/3) moist; moderate very fine and fine prismatic structure parting to strong very fine, fine, and medium subangular blocky; hard, friable, moderately sticky and moderately plastic; common very fine and few fine roots; few very fine irregular pores; continuous distinct clay films on faces of peds and in pores; slightly effervescent; strongly alkaline (pH 8.8); clear wavy boundary.
- 2Bkny—17 to 27 inches; brownish yellow (10YR 6/6) and pale brown (10YR 6/3) clay, very dark grayish brown (10YR 3/2) and olive brown (2.5Y 4/4) moist; strong very fine angular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; few very fine roots; few very fine irregular pores; 5 percent cobbles; common masses of gypsum; slightly effervescent; moderately alkaline (pH 8.2); clear wavy boundary.
- 2Bny1—27 to 48 inches; light yellowish brown (2.5Y 6/4) gravelly clay, light olive brown (2.5Y 5/4) moist; strong very fine angular blocky structure; hard, firm, moderately sticky and moderately plastic; common very fine irregular pores; 15 percent gravel and 10 percent cobbles; common masses of gypsum; moderately alkaline (pH 8.2); clear wavy boundary.
- 2Bny2—48 to 60 inches; pale yellow (2.5Y 7/4) clay, light olive brown (2.5Y 5/4) moist; strong very fine angular blocky structure; hard, firm, moderately sticky and moderately plastic; common very fine irregular pores; common masses of gypsum; moderately alkaline (pH 8.2).

Range in Characteristics

Profile:

Average annual soil temperature—43 to 46 degrees F

Depth to secondary carbonates—4 to 16 inches

Depth to gypsic material—16 to 38 inches

Depth to natric horizon—1 to 9 inches

Depth to perched water table—0 to 6 inches in February through April

Particle-size control section:

Clay content—35 to 60 percent

Rock fragment content—5 to 30 percent

A horizon:

Value—5 or 6 dry, 2 to 4 moist

Texture—silt loam, gravelly silt loam, or gravelly clay

E horizon:

Value—5 to 7 dry, 3 to 5 moist

Chroma—2 to 4 dry or moist

Texture—silt loam or gravelly silt loam

Rock fragment content—5 to 30 percent

Btn horizon:

Hue—7.5YR or 10YR
 Value—4 to 7 dry, 3 to 6 moist
 Chroma—2 to 4 dry or moist
 Texture—clay, clay loam, or gravelly clay
 Reaction—moderately alkaline or strongly alkaline
 Sodium adsorption ratio—15 to 30

Btkn horizon:

Hue—7.5YR or 10YR
 Value—5 to 8 dry, 3 to 6 moist
 Chroma—2 to 6 dry or moist
 Texture—gravelly clay, clay loam, or clay
 Sodium adsorption ratio—15 to 30

2Bny horizon:

Hue—5Y, 2.5Y, 7.5YR, or 10YR
 Value—6 to 8 dry, 3 to 6 moist
 Chroma—2 to 8 dry or moist
 Rock fragment content—0 to 30 percent
 Texture—clay, gravelly clay, or clay loam
 Reaction—moderately alkaline or strongly alkaline
 Sodium adsorption ratio—15 to 30
 Gypsum content—1 to 5 percent

Misfire Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Xeric
 Haplocalcids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 20 to 45 percent

Elevation: 4,000 to 5,500 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free period: 75 to 100 days

Typical Pedon Location

Map unit in which located: Misfire-Pattee-Dawtonia complex, 20 to 45 percent slopes

Location in survey area: Lemhi County, Idaho; about 1 mile northeast of Baker; about 1,585 feet north and 2,110 feet east of the southwest corner of sec. 35, T. 21 N., R. 23 E.; lat. 45°06'08" N., long. 113°42'08" W.

Typical Pedon

A—0 to 3 inches; yellowish brown (10YR 5/4) silt loam, brown (10YR 4/3) moist; weak fine granular structure; soft, very friable, nonsticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; neutral (pH 7.2); clear smooth boundary.

Bw—3 to 12 inches; light yellowish brown (10YR 6/4) gravelly silt loam, brown (10YR 4/3) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium

roots; many very fine and fine irregular pores; 20 percent gravel; neutral (pH 7.2); clear wavy boundary.

Bk1—12 to 17 inches; light gray (10YR 7/2) very gravelly sandy loam, pale brown (10YR 6/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; many very fine and fine irregular pores; 40 percent gravel and 15 percent cobbles; many lime coatings 1 millimeter thick on underside and sides of rock fragments; strongly effervescent; slightly alkaline (pH 7.4); clear wavy boundary.

Bk2—17 to 23 inches; very pale brown (10YR 7/3) extremely gravelly sandy loam, pale brown (10YR 6/3) moist; moderate medium subangular blocky structure; soft, very friable, nonsticky and slightly plastic; common very fine and fine roots; many very fine and fine irregular pores; 50 percent gravel and 15 percent cobbles; many lime coatings 1 millimeter thick on underside and sides of rock fragments; violently effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.

Bk3—23 to 35 inches; very pale brown (10YR 7/3) extremely gravelly sandy loam, pale brown (10YR 6/3) moist; single grain; loose; common very fine and fine roots; many very fine and fine irregular pores; 45 percent gravel and 25 percent cobbles; few very thin patchy lime coatings on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.4); gradual wavy boundary.

Bkq—35 to 60 inches; very pale brown (10YR 7/3) extremely gravelly sandy loam, light yellowish brown (10YR 6/4) moist; single grain; loose; few very fine and fine roots; many very fine and fine irregular pores; 55 percent gravel, 10 percent cobbles, and 10 percent stones; common lime and silica coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.4).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Depth to calcic horizon—11 to 17 inches

Reaction—neutral or slightly alkaline

Particle-size control section:

Clay content (average)—10 to 18 percent

A horizon:

Value—3 to 5 dry or moist

Chroma—3 or 4 dry or moist

Bw horizon:

Value—4 to 6 dry or moist

Chroma—3 or 4 dry or moist

Texture—gravelly silt loam, gravelly loam, or sandy loam

Rock fragment content—10 to 35 percent

Bk and Bkq horizons:

Value—6 or 7 dry or moist

Chroma—2 to 4 dry or moist

Texture—very gravelly sandy loam or extremely gravelly sandy loam

Rock fragment content—45 to 85 percent

Mitring Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Typic Haplocalcids

Depth class: Moderately deep to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Ridges and hills

Parent material: Kind—residuum and colluvium; source—extrusive igneous rock

Slope range: 15 to 40 percent

Elevation: 5,300 to 6,000 feet

Average annual precipitation: 6 to 10 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Mitring-Holinrock complex, 15 to 40 percent slopes

Location in survey area: Custer County, Idaho; 5 miles southeast of Challis; about 600 feet north and 2,400 feet west of the southeast corner of sec. 21, T. 13 N., R. 20 E.; lat. 44°26'12" N., long. 114°05'58" W.

Typical Pedon

A—0 to 3 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 5/3) moist; weak medium platy structure parting to weak fine granular; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine irregular pores; 45 percent gravel; slightly effervescent; moderately alkaline (pH 8.2); clear smooth boundary.

Bkq—3 to 10 inches; light yellowish brown (10YR 6/4) very gravelly loam, dark yellowish brown (10YR 4/4) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine irregular pores; 50 percent gravel and 2 percent cobbles; lime and silica coatings 1 to 2 millimeters thick on underside and sides of rock fragments; strongly effervescent; moderately alkaline (pH 8.4); clear wavy boundary.

Bk—10 to 30 inches; very pale brown (10YR 7/3) extremely gravelly sandy loam, very pale brown (10YR 7/3) moist; massive; soft, very friable, slightly sticky and slightly plastic; mat of many very fine and fine roots at upper boundary of horizon; many very fine and fine irregular pores; 85 percent angular gravel; about 30 percent soft secondary lime; strongly effervescent; strongly alkaline (pH 8.5); gradual wavy boundary.

Cr—30 to 40 inches; moderately cemented basalt.

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Depth to bedrock—25 to 35 inches

Depth to calcic horizon—2 to 4 inches

Particle-size control section:

Clay content—10 to 15 percent

Rock fragment content—65 to 90 percent

A horizon:

Value—4 to 6 dry or moist

Chroma—3 or 4 dry or moist

Bkq horizon:

Value—5 to 7 dry, 4 or 5 moist

Chroma—2 to 4 dry or moist

Texture—extremely gravelly loam or very gravelly loam

Clay content—20 to 26 percent

Reaction—moderately alkaline or strongly alkaline

Bk horizon:

Rock fragment content—70 to 90 percent

Clay content—10 to 15 percent

Moffspring Series

Taxonomic classification: Fine-loamy, mixed, superactive, frigid Pachic Argixerolls

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderately slow in upper part and very rapid in the lower part

Position on landscape: Stream terraces

Parent material: Kind— alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 6,000 to 6,600 feet

Average annual precipitation: 12 to 15 inches

Average annual air temperature: 41 to 45 degrees F

Frost-free period: 50 to 70 days

Typical Pedon Location

Map unit in which located: Bunting-Moffspring complex, 0 to 2 percent slopes

Location in survey area: Custer County, Idaho; about 22 miles southeast of Patterson; about 2,500 feet north and 40 feet east of the southwest corner of sec. 16, T. 11 N., R. 26 E.; lat. 44°16'23" N., long. 113°22'27" W.

Typical Pedon

- A1—0 to 3 inches; very dark grayish brown (10YR 3/2) loam, very dark brown (10YR 2/2) moist; weak thin platy structure; slightly hard, very friable, nonsticky and slightly plastic; many very fine and fine roots; few very fine tubular pores; 10 percent gravel; neutral (pH 7.0); clear smooth boundary.
- A2—3 to 7 inches; dark brown (10YR 3/3) loam, very dark brown (10YR 2/2) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine, and medium roots; common very fine tubular pores; 5 percent gravel; neutral (pH 7.1); clear smooth boundary.
- Bt—7 to 15 inches; brown (10YR 5/3) clay loam, dark brown (10YR 3/3) moist; weak medium prismatic structure parting to moderate fine subangular blocky; slightly hard, friable, slightly sticky and moderately plastic; common very fine and fine and few medium roots; common very fine tubular pores and few fine irregular pores; few faint clay films on faces of peds and in pores; 5 percent gravel; neutral (pH 7.2); clear wavy boundary.
- BC1—15 to 19 inches; dark grayish brown (10YR 4/2) loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine, and medium roots; common very fine tubular pores; 10 percent gravel; slightly alkaline (pH 7.4); clear wavy boundary.
- BC2—19 to 22 inches; dark brown (10YR 4/3) gravelly sandy loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; many very fine, common fine, and few medium roots; common very fine tubular pores; 20 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.4); gradual wavy boundary.
- 2C1—22 to 36 inches; brown (10YR 5/3) very gravelly loamy sand, dark brown (10YR 4/3) moist; single grain; loose, nonsticky and nonplastic; common very fine and few

fine and medium roots; 45 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.5); clear wavy boundary.
 2C2—36 to 60 inches; dark brown (10YR 4/3) very gravelly sand, very dark grayish brown (10YR 3/2) moist; common fine faint to distinct masses of iron accumulation, strong brown (7.5YR 5/6) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; 30 percent gravel and 10 percent cobbles; slightly alkaline (pH 7.5).

Range in Characteristics

Profile:

Average annual soil temperature—44 to 46 degrees F
 Thickness of mollic epipedon—20 to 30 inches
 Reaction—neutral or slightly alkaline
 Depth to high water table—36 to 72 inches in April through June
 Depth to sand and gravel (2C horizon)—20 to 35 inches

Particle-size control section:

Clay content—28 to 32 percent
 Rock fragment content—3 to 15 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist

Bt horizon:

Texture—clay loam or silty clay loam
 Gravel content—3 to 10 percent
 Cobble content—0 to 5 percent

BC horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 to 4 dry or moist
 Texture—loam, gravelly loam, or gravelly sandy loam
 Rock fragment content—5 to 30 percent

A Bq or Bkq horizon is in some pedons.

2C horizon:

Value—4 or 5 dry, 3 or 4 moist
 Chroma—2 or 3 dry or moist
 Texture—stratified extremely gravelly coarse sand to very gravelly loamy sand
 Rock fragment content—35 to 65 percent

Mogg Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Lithic Xeric Haplocalcids

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Hills and mountains

Parent material: Kind—residuum and colluvium; source—extrusive igneous rock

Slope range: 20 to 40 percent

Elevation: 4,500 to 6,000 feet

Average annual precipitation: 9 to 11 inches

Average annual air temperature: 39 to 44 degrees F

Frost-free period: 60 to 100 days

Typical Pedon Location

Map unit in which located: Mogg-Dawtonia association, 20 to 40 percent slopes

Location in survey area: Custer County, Idaho; about 3 miles north of Ellis; about 800 feet east and 1,700 feet south of the northwest corner of sec. 12, T. 16 N., R. 20 E.

Typical Pedon

- A—0 to 2 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate very fine and fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine irregular and vesicular pores; 25 percent gravel, 10 percent cobbles, and 10 percent flagstones; slightly alkaline (pH 7.4); clear wavy boundary.
- Bw—2 to 5 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure parting to moderate fine and medium granular; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; many very fine irregular pores; 35 percent gravel; slightly alkaline (pH 7.8); abrupt wavy boundary.
- Bk1—5 to 9 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; moderate very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine irregular pores; 35 percent gravel and 10 percent cobbles; strongly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.
- Bk2—9 to 14 inches; light yellowish brown (10YR 6/4) extremely gravelly loam, brown (10YR 4/3) moist; moderate very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine irregular pores; 55 percent gravel and 15 percent cobbles; violently effervescent; moderately alkaline (pH 8.2); abrupt wavy boundary.
- R—14 to 18 inches; indurated bedrock.

Range in Characteristics

Profile:

Average annual soil temperature—41 to 45 degrees F

Depth to calcic horizon—5 to 8 inches

Depth to bedrock—12 to 20 inches

Reaction—slightly alkaline or moderately alkaline

Particle-size control section:

Clay content—15 to 25 percent

Rock fragment content—35 to 70 percent

Calcium carbonate equivalent—15 to 25 percent

A horizon:

Value—3 or 4 moist

Bk horizon:

Value—3 to 5 moist

Chroma—3 or 4 dry

Texture—very gravelly loam or extremely gravelly loam

Rock fragment content—35 to 70 percent

Mooretown Series

Taxonomic classification: Coarse-loamy, mixed, superactive, frigid Cumulic Haploxerolls

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and rapid in the lower part

Position on landscape: Flood plains and stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 5,000 to 6,300 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 37 to 45 degrees F

Frost-free period: 50 to 90 days

Typical Pedon Location

Map unit in which located: Mooretown-Blackfoot-Borah complex, 0 to 2 percent slopes

Location in survey area: Custer County, Idaho; about 1 mile east of Darlington; about 1,500 feet west and 200 feet south of the northeast corner of sec. 32, T. 6 N., R. 26 E.

Typical Pedon

- A—0 to 4 inches; dark gray (10YR 4/1) loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure parting to weak fine granular; soft, friable, nonsticky and nonplastic; common very fine, fine, and medium roots; slightly effervescent; slightly alkaline (pH 7.5); clear smooth boundary.
- Bk1—4 to 11 inches; grayish brown (2.5Y 5/2) loam, very dark grayish brown (2.5Y 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, firm, nonsticky and nonplastic; common very fine, fine, and medium roots; common very fine tubular pores; slightly effervescent; slightly alkaline (pH 7.5); clear wavy boundary.
- Bk2—11 to 16 inches; grayish brown (2.5Y 5/2) loam, very dark grayish brown (2.5Y 3/2) moist; weak fine subangular blocky structure parting to weak fine granular; soft, friable, nonsticky and nonplastic; few very fine, fine, and medium roots; common very fine tubular pores; slightly effervescent; slightly alkaline (pH 7.5); clear wavy boundary.
- Bg1—16 to 24 inches; grayish brown (2.5Y 5/2) loam, very dark grayish brown (2.5Y 3/2) moist; many coarse prominent masses of iron accumulation, yellowish brown (10YR 5/6) moist; moderate medium subangular blocky structure; slightly hard, friable, nonsticky and slightly plastic; few very fine and medium roots; common very fine tubular pores; slightly alkaline (pH 7.4); clear wavy boundary.
- Bg2—24 to 43 inches; dark grayish brown (2.5Y 4/2) loam, dark olive gray (5Y 3/2) moist; many medium prominent masses of iron accumulation, yellowish brown (10YR 5/6) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and medium roots; common very fine tubular pores; slightly alkaline (pH 7.4); clear wavy boundary.
- 2C—43 to 60 inches; multicolored extremely gravelly loamy sand; many fine prominent masses of iron accumulation on rock fragments, yellowish brown (10YR 5/6) moist; single grain; loose, nonsticky and nonplastic; few very fine and common medium roots; few fine tubular pores; 80 percent gravel; slightly alkaline (pH 7.4).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 44 degrees F

Thickness of mollic epipedon—30 to 43 inches

Depth to redoximorphic accumulation—16 to 30 inches

Depth to high water table—18 to 36 inches in April through July (except in map unit 135 where it is more than 60 inches throughout the year)

Time of year flooding occurs—April through May (except in map unit 135 where flooding does not occur)

Depth to sand and gravel (2C horizon)—30 to 60 inches

Particle-size control section:

Clay content (average)—10 to 18 percent

Rock fragment content—0 to 10 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 or 2 dry or moist

Bk and Bg horizons:

Value—4 or 5 dry

Chroma—1 or 2 dry or moist

Texture—loam, sandy loam, or fine sandy loam

The Bg horizon is absent in some pedons.

2C horizon:

Texture—stratified fine sandy loam to extremely gravelly loamy sand

Rock fragment content—5 to 80 percent

Morphey Series*Taxonomic classification:* Fine, smectitic, frigid Xerertic Argialbolls*Depth class:* Very deep*Drainage class:* Moderately well drained*Permeability:* Very slow*Position on landscape:* Stream terraces*Parent material:* Kind—alluvium; source—lacustrine sediment*Slope range:* 1 to 8 percent*Elevation:* 4,000 to 5,500 feet*Average annual precipitation:* 11 to 13 inches*Average annual air temperature:* 40 to 44 degrees F*Frost-free period:* 75 to 100 days**Typical Pedon Location***Map unit in which located:* Morphey silt loam, 1 to 4 percent slopes*Location in survey area:* Lemhi County, Idaho; about 1.5 miles northeast of Tendoy; about 2,110 feet north and 2,110 feet west of the southeast corner of sec. 16, T. 19 N., R. 24 E.; lat. 44°58'30" N., long. 113°36'58" W.**Typical Pedon**

- A1—0 to 1 inch; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; weak thin platy structure; slightly hard, firm, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; slightly alkaline (pH 7.4); abrupt smooth boundary.
- A2—1 to 4 inches; brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; moderate medium subangular blocky structure; slightly hard, firm, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; slightly alkaline (pH 7.6); abrupt smooth boundary.
- A3—4 to 11 inches; brown (10YR 5/3) silt loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; slightly hard, firm, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine tubular pores; slightly alkaline (pH 7.4); clear smooth boundary.
- E—11 to 19 inches; light brownish gray (10YR 6/2) silty clay loam, dark grayish brown (10YR 4/2) moist; few faint redoximorphic concentrations; moderate fine and medium angular blocky structure; hard, firm, moderately sticky and moderately

plastic; common very fine and fine roots, many very fine and fine tubular pores; slightly alkaline (pH 7.8); clear wavy boundary.

Bt—19 to 27 inches; pale brown (10YR 6/3) clay, brown (10YR 4/3) moist; few faint redoximorphic concentrations; strong medium prismatic structure; very hard, very firm, very sticky and very plastic; common very fine and fine and few medium roots; many very fine and fine tubular pores; many prominent clay films on faces of peds; slightly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Btkz—27 to 38 inches; light yellowish brown (10YR 6/4) clay, yellowish brown (10YR 5/4) moist; strong fine and medium angular blocky structure; hard, firm, very sticky and very plastic; common very fine and fine roots; many very fine and fine tubular pores; common prominent clay films on faces of peds; common filaments of lime and soluble salts; strongly effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.

Bkz—38 to 55 inches; light yellowish brown (10YR 6/4) clay, yellowish brown (10YR 5/4) moist; strong fine and medium prismatic structure parting to strong fine and medium angular blocky; hard, very firm, very sticky and very plastic; many very fine and fine tubular pores; filaments and splotches of lime and soluble salts; slightly effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.

Bz—55 to 60 inches; light yellowish brown (10YR 6/4) clay, yellowish brown (10YR 5/4) moist; strong fine and medium prismatic structure; very hard, very firm, very sticky and very plastic; many very fine and fine tubular pores; filaments and splotches of soluble salts; slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—42 to 46 degrees F

Thickness of mollic epipedon—10 to 15 inches

Reaction—slightly alkaline or moderately alkaline

Depth to calcic horizon—20 to 36 inches

Depth to perched water table—12 to 18 inches in April through June

Depth to claypan—14 to 20 inches

Particle-size control section:

Clay content—35 to 50 percent

A horizon:

Chroma—2 or 3 moist or dry

E horizon:

Value—5 or 6 dry, 4 or 5 moist

Rock fragment content—0 to 5 percent

Bt horizon:

Chroma—3 or 4 dry or moist

Texture—silty clay loam, silty clay, or clay

Rock fragment content—0 to 5 percent

Btkz and Bkz horizons:

Hue—2.5Y or 10YR

Chroma—3 or 4 dry or moist

Texture—silty clay, clay, or silty clay loam

Bz horizon:

Hue—2.5Y or 10YR

Chroma—4 or 5 dry or moist

Texture—silty clay, clay, or silty clay loam

Rock fragment content—0 to 10 percent

Mountainboy Series

Taxonomic classification: Loamy-skeletal, carbonatic, shallow Typic Duricryolls

Depth class: Shallow to a duripan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—limestone

Slope range: 2 to 8 percent

Elevation: 6,800 to 7,500 feet

Average annual precipitation: 12 to 16 inches

Average annual air temperature: 37 to 39 degrees F

Frost-free period: 30 to 50 days

Typical Pedon Location

Map unit in which located: Mountainboy gravelly silt loam, 2 to 8 percent slopes

Location in survey area: Lemhi County, Idaho; about 1 mile east of Charcoal Kilns; about 1,900 feet east and 500 feet south of the northwest corner of sec. 5, T. 11 N., R. 28 E.; lat. 44°19'13" N., long. 113°09'06" W.

Typical Pedon

- A—0 to 6 inches; brown (10YR 5/3) gravelly silt loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure parting to weak fine granular; soft, friable, slightly sticky and slightly plastic; many very fine and fine and common medium and coarse roots; many very fine and fine irregular pores; 20 percent gravel; lime coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.8); clear smooth boundary.
- AB—6 to 11 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine, and coarse and few medium roots; many very fine and fine irregular pores; 25 percent gravel; lime coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent (55 percent calcium carbonate equivalent); moderately alkaline (pH 8.1); clear wavy boundary.
- Bk—11 to 16 inches; light gray (10YR 7/2) very gravelly loam, pale brown (10YR 6/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine, fine, and coarse roots; common very fine and fine irregular pores; 40 percent gravel; lime coatings about 1 millimeter thick on rock fragments; violently effervescent (65 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); abrupt wavy boundary.
- 2Bkq—16 to 19 inches; light gray (10YR 7/2) extremely gravelly coarse sand, light yellowish brown (10YR 6/4) moist; massive; hard, firm, nonsticky and nonplastic; common fine and medium irregular pores; 60 percent weakly cemented with silica and lime and 40 percent noncemented; 60 percent gravel; violently effervescent (70 percent calcium carbonate equivalent); very strongly alkaline (pH 9.1); abrupt wavy boundary.
- 2Bkqm—19 to 20 inches; light gray (10YR 7/2) strongly cemented duripan, light yellowish brown (10YR 6/4) moist; root mat on top of pan; abrupt wavy boundary.
- 2B'kq—20 to 60 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose, nonsticky and nonplastic; many fine and medium irregular pores; 80 percent gravel and 5 percent cobbles; silica and lime pendants 1 to 2 millimeters thick on underside of rock fragments; violently effervescent (75 percent calcium carbonate equivalent); very strongly alkaline (pH 9.1).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 41 degrees F
 Average summer soil temperature—55 to 58 degrees F
 Depth to duripan—15 to 20 inches
 Thickness of mollic epipedon—8 to 13 inches

Particle-size control section:

Clay content—10 to 18 percent
 Rock fragment content—35 to 65 percent
 Calcium carbonate equivalent—55 to 65 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist

AB and Bk horizons:

Value—5 to 7 dry, 3 to 6 moist
 Chroma—2 or 3 dry or moist
 Texture—gravelly loam, very gravelly loam, or very gravelly silt loam

2Bkq horizon:

Value—6 or 7 dry or moist
 Chroma—2 to 4 dry or moist

2B¹kq horizon:

Value—5 to 7 dry or moist
 Chroma—2 to 4 dry or moist
 Texture—extremely gravelly loamy coarse sand or extremely gravelly coarse sandy loam
 Rock fragment content—65 to 85 percent

Nicholia Series

Taxonomic classification: Loamy, carbonatic, shallow Duric Xeric Petrocrydis

Depth class: Shallow to a duripan

Drainage class: Well drained

Permeability: Moderate above the hardpan and very rapid below it

Position on landscape: Alluvial fans and fan terraces

Parent material: Kind—alluvium; source—limestone

Slope range: 2 to 7 percent

Elevation: 6,600 to 7,500 feet

Average annual precipitation: 8 to 10 inches

Average annual air temperature: 37 to 40 degrees F

Frost-free period: 40 to 60 days

Typical Pedon Location

Map unit in which located: Nicholia-Goosebury complex, 2 to 35 percent slopes

Location: Clark County, Idaho; about 1 mile west of Bluedome; about 900 feet east and 1,500 feet south of the northwest corner of sec. 31, T. 10 N., R. 30 E.; lat. 44°09'32" N., long. 112°55'52" W.

Typical Pedon

A—0 to 2 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown

(10YR 3/2) moist; weak thin platy structure; soft, very friable, slightly sticky and slightly plastic; many fine and very fine roots; 25 percent gravel; strongly effervescent (35 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear smooth boundary.

Bk—2 to 14 inches; pale brown (10YR 6/3) gravelly loam, dark brown (10YR 4/3) moist; weak coarse and medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common fine and very fine roots; 15 percent gravel; strongly effervescent (60 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); abrupt smooth boundary.

2Bkqm—14 to 15 inches; light brownish gray (10YR 6/2) indurated duripan, grayish brown (10YR 5/2) moist; abrupt smooth boundary.

2Bkq1—15 to 31 inches; light brownish gray (10YR 6/2) extremely gravelly loamy coarse sand, grayish brown (10YR 5/2) moist; massive; very hard, very firm, nonsticky and nonplastic; common very fine and few fine roots in cracks and seams; discontinuous silica and lime cementation; 85 percent gravel; violently effervescent (65 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); abrupt smooth boundary.

2Bkq2—31 to 37 inches; light brownish gray (10YR 6/2) extremely gravelly loamy sand, grayish brown (10YR 5/2) moist; massive; very hard, very firm, slightly sticky and slightly plastic; few very fine and fine roots in cracks and seams; discontinuous silica and lime cementation; 75 percent gravel; violently effervescent (75 percent calcium carbonate equivalent); very strongly alkaline (pH 9.0); abrupt smooth boundary.

2Bkq3—37 to 60 inches; light brownish gray (10YR 6/2) extremely gravelly loamy coarse sand, grayish brown (10YR 5/2) moist; single grain; loose, nonsticky and nonplastic; 80 percent gravel; common silica pendants on underside of rock fragments; violently effervescent (65 percent calcium carbonate equivalent); very strongly alkaline (pH 9.2).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 41 degrees F

Depth to duripan—10 to 20 inches

Particle-size control section:

Clay content—14 to 18 percent

Calcium carbonate equivalent (average)—40 to 65 percent

Rock fragment content—15 to 25 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Bk horizon:

Value—5 to 7 dry, 4 to 6 moist

Chroma—3 or 4 dry or moist

Texture—loam or gravelly loam

Rock fragment content—5 to 25 percent

2Bkq horizon:

Value—6 to 8 dry, 5 to 7 moist

Chroma—2 to 4 dry or moist

Texture—extremely gravelly loamy coarse sand or extremely gravelly loamy sand

Rock fragment content—60 to 90 percent

Reaction—moderately alkaline to very strongly alkaline

Nielsen Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Lithic Argicryolls

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Mountains and ridgetops

Parent material: Kind—residuum and colluvium; source—extrusive igneous rock

Slope range: 6 to 50 percent

Elevation: 5,500 to 8,500 feet

Average annual precipitation: 15 to 20 inches

Average annual air temperature: 35 to 41 degrees F

Frost-free period: 20 to 60 days

Typical Pedon

Map unit in which located: Nielsen-Gaciba association, 20 to 50 percent slopes

Location in survey area: Lemhi County, Idaho; about 13 miles northeast of Ellis; about 1,400 feet west and 600 feet north of the southeast corner of sec. 26, T. 18 N., R. 21 E.

Typical Pedon

A—0 to 3 inches; dark grayish brown (10YR 4/2) cobbly loam, very dark grayish brown (10YR 3/2) moist; weak fine and medium subangular blocky structure parting to moderate very fine and fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine and fine irregular pores and common very fine and fine tubular pores; 5 percent gravel and 15 percent cobbles; neutral (pH 7.0); clear wavy boundary.

Bt1—3 to 7 inches; dark grayish brown (10YR 4/2) very gravelly clay loam, very dark grayish brown (10YR 3/2) moist; weak very fine and fine subangular blocky structure; soft, friable, moderately sticky and moderately plastic; many very fine and common fine and medium roots; many very fine and fine tubular pores and common very fine irregular pores; common distinct clay films on faces of peds and in pores; 30 percent gravel and 10 percent cobbles; neutral (pH 6.8); clear wavy boundary.

Bt2—7 to 15 inches; dark grayish brown (10YR 4/2) extremely gravelly clay loam, very dark grayish brown (10YR 3/2) moist; moderate very fine subangular blocky structure; slightly hard, firm, moderately sticky and moderately plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores and few very fine irregular pores; common distinct clay films on faces of peds and in pores; 50 percent gravel and 15 percent cobbles; neutral (pH 7.0); clear wavy boundary.

R—15 to 25 inches; indurated andesite.

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F

Average summer soil temperature—55 to 57 degrees F

Thickness of mollic epipedon—8 to 15 inches

Depth to bedrock—10 to 20 inches

Particle-size control section:

Clay content—20 to 35 percent

Rock fragment content—35 to 75 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Bt horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Texture—very gravelly clay loam, extremely gravelly clay loam, or very gravelly loam

Nitchly Series*Taxonomic classification:* Loamy-skeletal, carbonatic Xeric Calcicryids*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Moderately slow*Position on landscape:* Mountains*Parent material:* Kind—colluvium; source—limestone*Slope range:* 20 to 50 percent*Elevation:* 6,600 to 8,500 feet*Average annual precipitation:* 11 to 17 inches*Average annual air temperature:* 36 to 40 degrees F*Frost-free period:* 20 to 50 days**Typical Pedon Location***Map unit in which located:* Nitchly-Skibo-Rock outcrop complex, 20 to 50 percent slopes*Location in survey area:* Custer County, Idaho; about 3.5 miles northwest of Willow Creek Summit; about 3,000 feet north and 30 feet east of the southwest corner of sec. 30, T. 11 N., R. 21 E.; lat. 44°15'18" N., long. 114°01'47" W.**Typical Pedon**

- A1—0 to 2 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; weak fine granular structure; soft, friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores and common fine tubular pores; 30 percent gravel; thin 1- to 2-millimeter-thick lime coatings on underside and sides of rock fragments; strongly effervescent; slightly alkaline (pH 7.6); clear wavy boundary.
- A2—2 to 6 inches; brown (7.5YR 5/4) very gravelly loam, brown (10YR 5/3) moist; weak fine subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine and few medium roots; few very fine and fine irregular pores; 40 percent gravel; common 2- to 5-millimeter-thick lime coatings and pendants on underside and sides of rock fragments; violently effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.
- Bk1—6 to 14 inches; light yellowish brown (10YR 6/4) very gravelly loam, yellowish brown (10YR 5/4) moist; weak fine subangular blocky structure; slightly hard, firm, sticky and plastic; few very fine and fine roots; many very fine irregular pores; 50 percent gravel and 5 percent cobbles; common lime coatings 2 to 5 millimeters thick on underside and sides of rock fragments; violently effervescent (55 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); gradual wavy boundary.
- Bk2—14 to 27 inches; pink (7.5YR 7/4) very gravelly clay loam, light yellowish brown (10YR 6/4) moist; moderate fine subangular blocky structure; slightly hard, firm,

moderately sticky and moderately plastic; few fine and very fine roots that are mostly dead; common very fine irregular pores; 55 percent gravel and 5 percent cobbles; violently effervescent (60 percent calcium carbonate equivalent); strongly alkaline (pH 8.6); gradual wavy boundary.

Bk3—27 to 48 inches; pink (7.5YR 7/4) extremely gravelly clay loam, yellowish brown (10YR 5/4) moist; moderate fine subangular blocky structure parting to weak thin platy; slightly hard, firm, moderately sticky and moderately plastic; few very fine dead roots; few very fine and fine irregular pores; 60 percent gravel and 5 percent cobbles; violently effervescent (55 percent calcium carbonate equivalent); strongly alkaline (pH 8.6); gradual wavy boundary.

2Bk4—48 to 60 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, strong brown (7.5YR 5/6) moist; moderate fine subangular blocky structure parting to weak thin platy; slightly hard, firm, moderately sticky and moderately plastic; many very fine and fine irregular and tubular pores; clayey bands in 50 percent of matrix; 45 percent gravel and 5 percent cobbles; about 2 percent of matrix contains thin 1-millimeter-thick soft calcium carbonate masses; strongly effervescent; moderately alkaline (pH 8.2).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 42 degrees F

Average summer soil temperature—52 to 58 degrees F

Depth to calcic horizon—3 to 7 inches

Particle-size control section:

Clay content (average)—27 to 35 percent

Carbonate-free clay content (average)—15 to 18 percent

Rock fragment content—45 to 70 percent

Calcium carbonate equivalent (average)—45 to 60 percent

A horizon:

Hue—10YR or 7.5YR

Value—5 or 6 dry, 3 to 5 moist

Chroma—3 or 4 dry or moist

Bk horizon:

Hue—10YR or 7.5YR

Value—6 or 7 dry, 4 to 6 moist

Chroma—3 to 6 dry or moist

Texture—very gravelly loam, very gravelly clay loam, or extremely gravelly clay loam

Rock fragment content—40 to 75 percent

Nurkey Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Xeric Argicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Hills, mountains, and fan terraces

Parent material: Kind—colluvium; source—extrusive igneous rock and slate

Slope range: 2 to 60 percent

Elevation: 5,600 to 9,000 feet

Average annual precipitation: 12 to 20 inches

Average annual air temperature: 35 to 42 degrees F

Frost-free period: 30 to 70 days

Typical Pedon Location

Map unit in which located: Parkay-Nurkey complex, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 15 miles east of Clayton, in the northern part of Corral Basin; about 950 feet north and 1,300 feet east of the southwest corner of sec. 28, T. 11 N., R. 20 E.; lat. 44°14'56" N., long. 114°16'22" W.

Typical Pedon

- A—0 to 2 inches; dark brown (10YR 4/3) very gravelly loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine irregular pores and common very fine and fine tubular pores; 30 percent gravel and 5 percent cobbles; neutral (pH 7.2); clear wavy boundary.
- BA—2 to 6 inches; brown (10YR 4/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few medium and many very fine and fine roots; common very fine and fine tubular pores; 35 percent gravel; neutral (pH 7.2); clear wavy boundary.
- Bt1—6 to 11 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; common very fine and fine tubular pores; few faint clay films on faces of peds; 35 percent gravel and 10 percent cobbles; neutral (pH 7.2); clear wavy boundary.
- Bt2—11 to 19 inches; yellowish brown (10YR 5/4) very gravelly clay loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; hard, friable, moderately sticky and slightly plastic; common very fine and fine roots; many very fine tubular pores; common distinct clay films on faces of peds and in pores; 40 percent gravel and 15 percent cobbles; lime coatings less than 1 millimeter thick on underside of some cobbles; slightly alkaline (pH 7.4); gradual wavy boundary.
- Btk—19 to 28 inches; brown (10YR 5/3) very gravelly sandy clay loam, brown (10YR 4/3) moist; moderate very fine and fine subangular blocky structure; hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine tubular pores; few faint clay films on faces of peds and in pores; 45 percent gravel and 5 percent cobbles; lime coatings less than 1 millimeter thick on underside of rock fragments; slightly alkaline (pH 7.4); clear wavy boundary.
- Bk1—28 to 39 inches; yellowish brown (10YR 5/4) extremely gravelly sandy loam, brown (10YR 4/3) moist; weak very fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine tubular pores; 5 percent by volume areas that have many very fine and fine roots and are dark brown (10YR 3/3); 75 percent gravel; lime coatings less than 1 millimeter thick on underside of rock fragments; few segregated soft secondary lime filaments; strongly effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.
- Bk2—39 to 60 inches; yellowish brown (10YR 5/4) extremely gravelly sandy loam, dark grayish brown (10YR 4/2) moist; massive; slightly hard, friable, slightly sticky and nonplastic; few very fine roots; common very fine tubular pores; 75 percent gravel and 5 percent cobbles; lime coatings less than 1 millimeter thick on underside and

sides of rock fragments; common segregated lime filaments; violently effervescent; slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 41 degrees F
 Average summer soil temperature—46 to 50 degrees F
 Thickness of mollic epipedon—8 to 14 inches
 Depth to calcic horizon—15 to 30 inches

Particle-size control section:

Clay content—20 to 30 percent
 Rock fragment content—40 to 65 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist
 Texture—gravelly loam, stony loam, or very gravelly loam

Bt and Btk horizons:

Hue—7.5YR or 10YR
 Value—5 to 7 dry, 3 to 5 moist
 Chroma—2 to 4 dry or moist
 Texture—very gravelly loam, very gravelly sandy clay loam, extremely gravelly loam, or very gravelly clay loam
 Reaction—neutral to moderately alkaline

Bk horizon:

Value—5 to 7 dry, 4 or 5 moist
 Chroma—2 to 4 dry or moist
 Texture—extremely gravelly sandy loam, very gravelly sandy loam, or extremely gravelly fine sandy loam
 Rock fragment content—50 to 80 percent
 Reaction—slightly alkaline or moderately alkaline
 Calcium carbonate equivalent—15 to 35 percent

Oxhead Series

Taxonomic classification: Ashy, glassy, frigid Vitrixerandic Haplocalcids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Terraces

Parent material: Kind—uplifted lacustrine sediment; source—mixed

Slope range: 2 to 8 percent

Elevation: 6,000 to 6,900 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 39 degrees F

Frost-free period: 50 to 90 days

Typical Pedon Location

Map unit in which located: Oxhead gravelly loam, 2 to 8 percent slopes

Location in survey area: Lemhi County, Idaho; about 8 miles from Leadore, along road from State Highway 28 to Oxbow Ranch; about 500 feet south and 1,600 feet

east of the northwest corner of sec. 6, T. 14 N., R. 27 E.; lat. 44°34'42" N.,
long. 113°17'15" W.

Typical Pedon

- A—0 to 3 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine granular structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 15 percent gravel; slightly alkaline (pH 7.6); clear smooth boundary.
- Bw—3 to 9 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; weak fine and medium subangular blocky structure; slightly hard, firm, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; 10 percent gravel; slightly effervescent; moderately alkaline (pH 7.9); clear wavy boundary.
- Bk1—9 to 14 inches; very pale brown (10YR 7/4) gravelly loam, yellowish brown (10YR 5/4) moist; weak medium subangular blocky structure parting to moderate thin platy; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 15 percent fine gravel; occasional lime coatings on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.2); clear smooth boundary.
- Bk2—14 to 21 inches; very pale brown (10YR 8/3) gravelly loam, light yellowish brown (10YR 6/4) moist; massive; hard, firm, slightly sticky and nonplastic; few medium roots; many very fine and fine irregular pores; 20 percent gravel; horizon is compacted and most roots are horizontal along top of horizon; violently effervescent; moderately alkaline (pH 8.3); abrupt wavy boundary.
- Bk3—21 to 30 inches; white (10YR 8/2) fine sandy loam, pale brown (10YR 6/3) moist; weak coarse subangular blocky structure; hard, firm, nonsticky and nonplastic; few very fine and fine roots; many fine irregular pores; 5 percent gravel; violently effervescent; strongly alkaline (pH 8.5); clear wavy boundary.
- Bk4—30 to 56 inches; very pale brown (10YR 7/4) fine sandy loam, yellowish brown (10YR 5/6) moist; moderate and strong medium and thin platy structure; slightly hard, friable, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine irregular pores; 5 percent gravel; horizon is very compacted and restricts about 75 percent of roots; root mat at top of horizon; violently effervescent; moderately alkaline (pH 8.4); abrupt wavy boundary.
- Bk5—56 to 61 inches; very pale brown (10YR 8/4) fine sandy loam, light yellowish brown (10YR 6/4) moist; strong very thin platy structure parting to strong fine angular blocky; hard, firm, slightly sticky and slightly plastic; few very fine roots; few fine irregular pores; 2 percent gravel; violently effervescent; strongly alkaline (pH 8.5).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 41 degrees F

Depth to calcic horizon—5 to 15 inches

Particle-size control section:

Clay content—10 to 17 percent

Rock fragment content—5 to 30 percent

Volcanic ash content—30 to 50 percent

A horizon:

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Bw horizon:

Value—6 or 7 dry, 3 to 6 moist
 Chroma—3 or 4 dry or moist
 Texture—loam or gravelly loam
 Rock fragment content—5 to 20 percent

Bk horizon:

Value—6 to 8 dry, 5 to 7 moist
 Chroma—2 to 6 dry or moist
 Texture—fine sandy loam, loam, or gravelly loam
 Rock fragment content—5 to 25 percent
 Calcium carbonate equivalent—25 to 40 percent

Packham Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Xeric Haplocambids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Stream terraces and fan terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 8 percent

Elevation: 4,200 to 5,400 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 42 to 46 degrees F

Frost-free period: 70 to 100 days

Typical Pedon Location

Map unit in which located: Packham-Perreau complex, 5 to 15 percent slopes

Location in survey area: Lemhi County, Idaho; about 3.5 miles east of Carmen; about 100 feet north and 1,220 feet east of the southwest corner of sec. 14, T. 22 N., R. 22 E.

Typical Pedon

- A—0 to 5 inches; brown (10YR 5/3) gravelly loam, very dark grayish brown (10YR 3/2) moist; weak very thin platy structure parting to weak fine granular; soft, friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 20 percent gravel; slightly alkaline (pH 7.6); clear wavy boundary.
- Bw—5 to 15 inches; yellowish brown (10YR 5/4) very gravelly loam, dark brown (10YR 4/3) moist; weak medium subangular blocky structure parting to weak fine subangular blocky; soft, friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 35 percent gravel and 2 percent cobbles; slightly alkaline (pH 7.6); gradual wavy boundary.
- Bk1—15 to 32 inches; yellowish brown (10YR 5/4) very gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; weak coarse to fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine irregular pores; 40 percent gravel and 15 percent cobbles; slightly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.
- 2Bk2—32 to 60 inches; light yellowish brown (10YR 6/4) very gravelly loamy sand, yellowish brown (10YR 5/4) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine roots; many fine irregular pores; 40 percent gravel,

15 percent cobbles, and 5 percent stones; lime coatings less than 1 millimeter thick on underside of rock fragments; slightly effervescent; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Average annual soil temperature—43 to 46 degrees F

Depth to secondary carbonates—14 to 20 inches

Depth to sand and gravel (2Bk horizon)—20 to 35 inches

Particle-size control section:

Clay content (average)—12 to 18 percent

Rock fragment content—35 to 65 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Bw and Bk horizons:

Value—5 or 6 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Rock fragment content—35 to 65 percent

Texture—very gravelly loam, extremely gravelly loam, or very gravelly sandy loam

2Bk horizon:

Rock fragment content—50 to 60 percent

Texture—very gravelly loamy sand or very gravelly coarse sand

Packmo Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Xeric Haplocalcids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Fan terraces and outwash fans

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 20 percent

Elevation: 5,800 to 6,800 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 42 degrees F

Frost-free period: 50 to 80 days

Typical Pedon Location

Map unit in which located: Packmo-Whiteknob complex, 1 to 4 percent slopes

Location in survey area: Custer County, Idaho; about 3 miles northwest of Chilly Buttes; about 1,800 feet north and 1,600 feet west of the southeast corner of sec. 21, T. 9 N., R. 21 E.; lat. 44°05'35" N., long. 113°58'42" W.

Typical Pedon

A—0 to 3 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate medium angular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and common medium and coarse roots; many very fine and fine irregular pores; 15 percent gravel; neutral (pH 7.2); clear smooth boundary.

Bw—3 to 10 inches; light yellowish brown (10YR 6/4) gravelly loam, dark brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard,

- friable, slightly sticky and slightly plastic; many very fine and fine and common medium and coarse roots; common very fine and fine irregular and tubular pores; 30 percent gravel; slightly alkaline (pH 7.4); gradual wavy boundary.
- 2Bk—10 to 13 inches; light yellowish brown (10YR 6/4) very gravelly sandy loam, brown (10YR 5/3) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; common very fine and fine tubular pores; 50 percent gravel and 5 percent cobbles; lime coatings 1 to 3 millimeters thick on underside of some rock fragments; slightly alkaline (pH 7.5); gradual wavy boundary.
- 2Bkq1—13 to 18 inches; pale brown (10YR 6/3) extremely gravelly sandy loam, brown (10YR 5/3) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine tubular pores; 60 percent gravel and 10 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; strongly effervescent; moderately alkaline (pH 8.2); gradual wavy boundary.
- 2Bkq2—18 to 20 inches; very pale brown (10YR 7/3) extremely gravelly loam, very pale brown (10YR 7/4) moist; massive; slightly hard, firm, slightly sticky and slightly plastic; few very fine and fine roots; common very fine irregular and tubular pores; 35 percent gravel and 30 percent cobbles; lime and silica coatings and pendants 1 to 5 millimeters thick on underside and some sides of rock fragments; discontinuous pockets and layers of weakly cemented material; violently effervescent; moderately alkaline (pH 8.3); gradual wavy boundary.
- 2Bkq3—20 to 38 inches; multicolored extremely gravelly sandy loam; single grain; loose; few very fine and fine roots; common medium irregular pores; 60 percent gravel and 15 percent cobbles; lime and silica coatings 1 to 5 millimeters thick on underside and some sides of rock fragments; strongly effervescent; moderately alkaline (pH 8.1); clear wavy boundary.
- 2Bkq4—38 to 40 inches; white (10YR 8/2) extremely gravelly sandy loam, very pale brown (10YR 7/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine irregular and tubular pores; 50 percent gravel and 30 percent cobbles; lime and silica coatings and pendants 1 to 5 millimeters thick on underside and some sides of rock fragments; discontinuous pockets and layers of weakly cemented material; violently effervescent; moderately alkaline (pH 8.3); abrupt wavy boundary.
- 2Bkq5—40 to 60 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; common medium irregular pores; 45 percent gravel, 30 percent cobbles, and 10 percent stones; lime and silica coatings and pendants 1 to 5 millimeters thick on underside and some sides of rock fragments; slightly effervescent; strongly alkaline (pH 8.5).

Range in Characteristics

Profile:

- Average annual soil temperature—39 to 41 degrees F
 Depth to secondary carbonates—10 to 13 inches
 Depth to calcic horizon—10 to 20 inches
 Calcium carbonate equivalent in calcic horizon—5 to 15 percent
 Depth to sand and gravel (2Bkq5 horizon)—40 to 60 inches

Particle-size control section:

- Clay content—10 to 18 percent
 Rock fragment content—45 to 85 percent

A horizon:

- Value—5 or 6 dry

Bw horizon:

Value—3 or 4 moist
 Chroma—3 or 4 dry or moist
 Texture—gravelly loam or very gravelly sandy loam
 Rock fragment content—30 to 40 percent
 Reaction—neutral or slightly alkaline

2Bk horizon:

Value—4 or 5 moist
 Chroma—2 or 3 dry or moist
 Rock fragment content—30 to 65 percent
 Reaction—slightly alkaline or moderately alkaline

2Bkq1, 2Bkq2, 2Bkq3, and 2Bkq4 horizons:

Value—6 to 8 dry, 3 to 7 moist
 Chroma—2 or 3 dry, 3 or 4 moist
 Texture—very gravelly loam, extremely gravelly loam, or extremely gravelly sandy loam
 Rock fragment content—50 to 85 percent
 Reaction—moderately alkaline or strongly alkaline

2Bkq5 horizon:

Texture—extremely gravelly loamy coarse sand or extremely gravelly loamy sand
 Rock fragment content—60 to 85 percent

Pahsimeroi Series

Taxonomic classification: Sandy-skeletal, siliceous, frigid Xeric Haplocambids

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Fan terraces and outwash fans

Parent material: Kind—alluvium; source—quartzite

Slope range: 2 to 20 percent

Elevation: 4,500 to 6,200 feet

Average annual precipitation: 7 to 11 inches

Average annual air temperature: 39 to 41 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Pahsimeroi extremely gravelly loam, 2 to 10 percent slopes

Location in survey area: Lemhi County, Idaho; about 2.5 miles northwest of May; about 2,000 feet north and 950 feet east of the southwest corner of sec. 14, T. 15 N., R. 21 E.

Typical Pedon

A—0 to 5 inches; brown (10YR 5/3) extremely gravelly loam, dark brown (10YR 3/3) moist; weak very thin and thin platy structure; soft, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; many very fine tubular and irregular pores; 40 percent gravel and 20 percent cobbles; slightly alkaline (pH 7.4); clear wavy boundary.

Bw1—5 to 12 inches; yellowish brown (10YR 5/4) very gravelly coarse sandy loam, dark brown (10YR 4/3) moist; weak very fine granular structure; soft, very friable, slightly sticky and nonplastic; many very fine and common fine, medium, and

coarse roots; many very fine tubular pores; 40 percent gravel and 15 percent cobbles; neutral (pH 7.2); clear wavy boundary.

Bw2—12 to 25 inches; yellowish brown (10YR 5/4) extremely cobbly loamy coarse sand, dark yellowish brown (10YR 4/4) moist; single grain; loose, nonsticky and nonplastic; many very fine and common fine and medium roots; common very fine tubular pores and many very fine irregular pores; 30 percent gravel, 30 percent cobbles, and 5 percent stones; neutral (pH 7.1); gradual wavy boundary.

Bkq—25 to 60 inches; multicolored extremely cobbly coarse sand; single grain; loose, nonsticky and nonplastic; common very fine roots; common very fine tubular pores and many very fine and fine irregular pores; 30 percent gravel, 30 percent cobbles, and 10 percent stones; lime and silica coatings on underside of rock fragments; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 43 degrees F

Depth to sand and gravel (Bw2 horizon)—10 to 20 inches

Particle-size control section:

Clay content (average)—6 to 10 percent

Rock fragment (content)—50 to 80 percent

A horizon:

Value—5 or 6 dry, 3 to 5 moist

Chroma—2 or 3 dry or moist

Texture—gravelly loam or extremely gravelly loam

Bw1 horizon:

Value—5 or 6 dry, 3 to 5 moist

Chroma—3 or 4 dry or moist

Texture—very gravelly coarse sandy loam or extremely gravelly coarse sandy loam

Rock fragment content—35 to 75 percent

Bw2 and Bkq horizons:

Texture—extremely cobbly coarse sand, extremely cobbly sand, extremely cobbly loamy coarse sand, extremely cobbly loamy sand, or extremely gravelly sand

Rock fragments content—60 to 85 percent

Paint Series

Taxonomic classification: Loamy-skeletal, carbonatic, frigid, shallow Xereptic Haplodurids

Depth class: Shallow to a duripan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Position on landscape: Fan terraces and outwash fans

Parent material: Kind—alluvium; source—limestone

Slope range: 2 to 10 percent

Elevation: 5,500 to 7,200 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free period: 50 to 90 days

Typical Pedon Location

Map unit in which located: Paint complex, 2 to 8 percent slopes

Location in survey area: Lemhi County, Idaho; about 33 miles southeast of Leadore; about 1,250 feet south and 700 feet east of the northwest corner of sec. 14, T. 11 N., R. 29 E.; lat. 44°17'24" N., long. 112°16'10" W.

Typical Pedon

- A—0 to 3 inches; pale brown (10YR 6/3) gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; many very fine and few fine irregular pores; 25 percent gravel and 5 percent cobbles; lime and silica coatings less than 2 millimeters thick on underside of rock fragments; slightly effervescent (64 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.
- Bkq1—3 to 7 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine, medium, and coarse roots; many very fine irregular pores; 30 percent gravel and 5 percent cobbles; silica and lime coatings less than 2 millimeters thick on underside of rock fragments; strongly effervescent (52 percent calcium carbonate equivalent); moderately alkaline (pH 7.9); clear wavy boundary.
- Bkq2—7 to 12 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine, medium, and coarse roots; many very fine irregular pores; 20 percent gravel and 15 percent cobbles; silica and lime coatings less than 3 millimeters thick on underside of rock fragments; violently effervescent (70 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); abrupt wavy boundary.
- 2Bkqm—12 to 16 inches; light gray (10YR 7/2) weakly cemented duripan of very gravelly loamy coarse sand, dark grayish brown (10YR 4/2) moist; massive; hard, firm, nonsticky and nonplastic; common very fine dead roots; few very fine irregular pores; 50 percent gravel and 5 percent cobbles; silica and lime coatings less than 2 millimeters thick on underside of rock fragments; violently effervescent; strongly alkaline (pH 8.5); clear wavy boundary.
- 2Bkq1—16 to 25 inches; light gray (10YR 7/2) extremely gravelly loamy coarse sand, dark grayish brown (10YR 4/2) moist; single grain; loose, nonsticky and nonplastic; few very fine dead roots; many very fine and few fine irregular pores; 70 percent gravel; silica and lime coatings on underside of rock fragments; violently effervescent; strongly alkaline (pH 8.5); gradual wavy boundary.
- 2Bkq2—25 to 60 inches; light brownish gray (10YR 6/2) extremely gravelly loamy coarse sand, dark grayish brown (10YR 4/2) moist; single grain; loose, nonsticky and nonplastic; few very fine dead roots; many very fine and few fine and medium irregular pores; 60 percent gravel and 10 percent cobbles; silica and lime coatings less than 2 millimeters thick on underside of rock fragments; violently effervescent; strongly alkaline (pH 8.8).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F
 Depth to duripan—11 to 16 inches
 Reaction—slightly alkaline to strongly alkaline

Particle-size control section:

Clay content—12 to 19 percent
 Rock fragment content (average)—35 to 55 percent
 Calcium carbonate equivalent (average)—50 to 70 percent

A horizon:

Value—5 or 6 dry

Bkq horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—3 or 4 dry

Texture—very gravelly loam or very cobbly loam

Reaction—slightly alkaline to strongly alkaline

2Bkqm horizon:

Value—4 to 7 dry or moist

Chroma—2 to 4 dry or moist

Rock fragment content—50 to 80 percent

2Bkq horizon:

Value—6 or 7 dry

Chroma—1 to 4 moist

Texture—extremely gravelly loamy coarse sand, extremely gravelly sand, or very gravelly sandy loam

Rock fragment content—50 to 90 percent

Reaction—moderately alkaline or strongly alkaline

Parkay Series*Taxonomic classification:* Loamy-skeletal, mixed, superactive Pachic Argicryolls*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Moderate*Position on landscape:* Mountains, hills, and fan terraces*Parent material:* Kind—colluvium; source—extrusive igneous rock*Slope range:* 2 to 50 percent*Elevation:* 6,000 to 9,500 feet*Average annual precipitation:* 14 to 22 inches*Average annual air temperature:* 34 to 40 degrees F*Frost-free period:* 30 to 60 days**Typical Pedon Location***Map unit in which located:* Parkay-Nurkey complex, 20 to 50 percent slopes*Location in survey area:* Custer County, Idaho; about 16 miles east of Clayton; about 1,450 feet south and 1,420 feet east of the northwest corner of sec. 10, T. 10 N., R. 20 E.**Typical Pedon**

A1—0 to 4 inches; very dark grayish brown (10YR 3/2) gravelly loam, very dark brown (10YR 2/2) moist; weak very fine and fine granular structure; soft, very friable, nonsticky and slightly plastic; many very fine roots; many very fine and fine irregular pores; 30 percent gravel; neutral (pH 7.0); gradual wavy boundary.

A2—4 to 9 inches; very dark grayish brown (10YR 3/2) gravelly loam, very dark brown (10YR 2/2) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine, medium, and coarse roots; common very fine and fine tubular and irregular pores; 30 percent gravel; neutral (pH 7.0); clear smooth boundary.

Bt1—9 to 22 inches; dark grayish brown (10YR 4/2) very gravelly clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common very fine

and few fine and medium roots; many very fine tubular and irregular pores; common thin clay films on faces of peds; 40 percent gravel; neutral (pH 6.8); clear wavy boundary.

Bt2—22 to 32 inches; yellowish brown (10YR 5/4) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; common fine subangular blocky structure; slightly hard, friable, moderately sticky and slightly plastic; few very fine and fine roots; many very fine and common fine tubular and irregular pores; common distinct clay films on faces of peds and in pores; 50 percent gravel and 2 percent cobbles; neutral (pH 7.2); gradual wavy boundary.

Bt3—32 to 35 inches; pale brown (10YR 6/3) very gravelly clay loam, dark brown (10YR 4/3) moist; weak very fine subangular blocky structure; hard, friable, moderately sticky and moderately plastic; few very fine roots; many very fine and common fine tubular and irregular pores; few distinct clay films on faces of peds; 50 percent gravel and 10 percent cobbles; neutral (pH 7.2); gradual wavy boundary.

C—35 to 60 inches; light yellowish brown (10YR 6/4) extremely gravelly sandy clay loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; many very fine tubular pores and common fine irregular pores; 50 percent gravel and 15 percent cobbles; neutral (pH 7.2).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 41 degrees F

Average summer soil temperature—55 to 57 degrees F

Thickness of mollic epipedon—20 to 30 inches

Particle-size control section:

Clay content—18 to 30 percent

Rock fragment content (average)—35 to 60 percent

A1 horizon:

Value—3 to 5 dry

Texture—gravelly loam, very gravelly loam, or stony loam

Bt horizon:

Value—4 to 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Texture—very gravelly clay loam, very gravelly loam, extremely cobbly loam, or extremely cobbly clay loam

C horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Rock fragment content—50 to 70 percent

Texture—very gravelly sandy clay loam, very gravelly loam, extremely gravelly sandy clay loam, very cobbly loam, or very gravelly clay loam

Pattee Series

Taxonomic classification: Coarse-silty, mixed, superactive, frigid Sodic Xeric Haplocambids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Stream terraces and hills

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 30 percent

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 44 degrees F

Frost-free period: 75 to 100 days

Typical Pedon Location

Map unit in which located: Pattee-Perreau complex, 4 to 8 percent slopes (fig. 11)

Location in survey area: Lemhi County, Idaho; about 5 miles southeast of Salmon; about 2,100 feet south and 2,100 feet east of the northwest corner of sec. 19, T. 21 N., R. 23 E.; lat. 45°08'13" N., long. 113°46'57" W.

Typical Pedon

- A—0 to 4 inches; light yellowish brown (10YR 6/4) silt loam, brown (10YR 4/3) moist; weak thin platy structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; slightly alkaline (pH 7.6); clear wavy boundary.
- Bw1—4 to 10 inches; light yellowish brown (10YR 6/4) silt loam, brown (10YR 4/3) moist; moderate medium prismatic structure; slightly hard, friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 2 percent fine gravel; moderately alkaline (pH 7.9); clear wavy boundary.
- Bw2—10 to 25 inches; light yellowish brown (10YR 6/4) loam, dark yellowish brown (10YR 4/4) moist; moderate coarse prismatic structure; slightly hard, friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 10 percent gravel; slightly alkaline (pH 7.7); clear wavy boundary.
- Bkn1—25 to 30 inches; light yellowish brown (10YR 6/4) loam, brown (10YR 5/3) moist; moderate medium prismatic structure; slightly hard, friable, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine irregular pores; 2 percent gravel; lime coatings 1 millimeter thick on rock fragments; strongly effervescent; moderately alkaline (pH 7.9); clear wavy boundary.
- Bkn2—30 to 40 inches; very pale brown (10YR 7/3) silt loam, pale brown (10YR 6/3) moist; moderate coarse prismatic structure; slightly hard, friable, slightly sticky and nonplastic; few very fine and fine roots; many very fine and fine irregular pores; 5 percent gravel; lime coatings 1 millimeter thick on rock fragments; 5 percent weakly cemented cicada casts and nodules; violently effervescent; moderately alkaline (pH 8.2); clear wavy boundary.
- Bkn3—40 to 49 inches; very pale brown (10YR 7/4) silt loam, brown (10YR 5/3) moist; massive; soft, very friable, slightly sticky and nonplastic; many very fine and fine irregular pores; 2 percent gravel; lime coatings 1 millimeter thick on rock fragments; violently effervescent; moderately alkaline (pH 7.9); clear wavy boundary.
- 2Bknz—49 to 60 inches; very pale brown (10YR 7/4) gravelly loam, yellowish brown (10YR 5/4) moist; massive; hard, firm, slightly sticky and slightly plastic; many very fine and fine irregular pores; 30 percent gravel; 10 percent filaments and soft masses of lime and salt crystals; lime coatings 1 millimeter thick on rock fragments; violently effervescent; slightly alkaline (pH 7.6).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

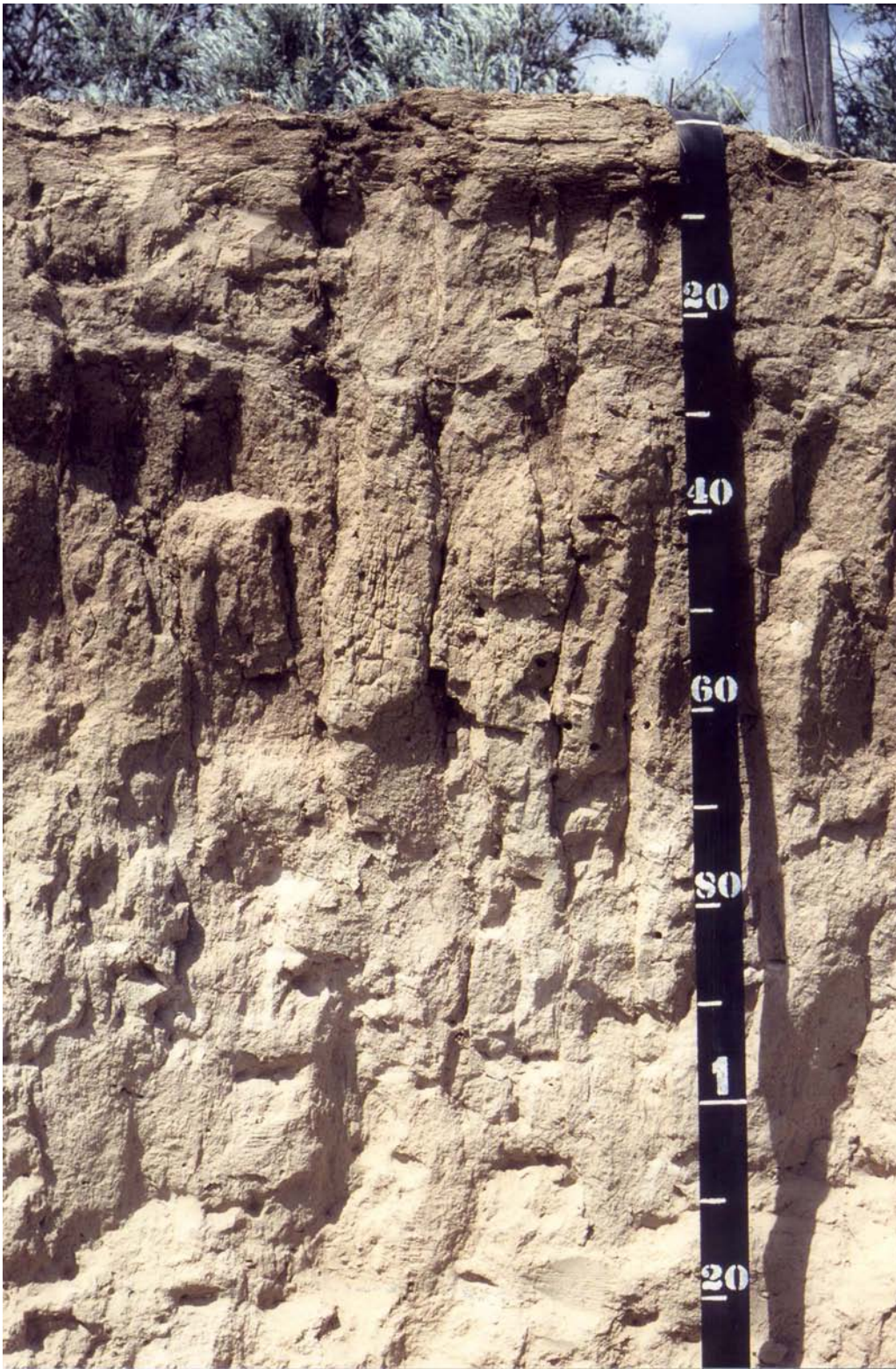


Figure 11.—Typical profile of Pattee silt loam in an area of Pattee-Perreau complex, 4 to 8 percent slopes. This soil formed in alluvium derived from mixed sources. Accumulations of sodium and other salts are at a depth of 63 centimeters (25 inches). The numerals on the tape are in decimeters.

Reaction—slightly alkaline or moderately alkaline
 Depth to secondary carbonates—15 to 30 inches

Particle-size control section:

Clay content (average)—10 to 18 percent
 Rock fragment content—2 to 25 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist
 Chroma—3 or 4 moist or dry

Bw horizon:

Value—6 or 7 dry, 4 or 5 moist
 Chroma—3 or 4 dry or moist
 Texture—loam or silt loam

Bkn horizon:

Value—5 to 7 dry, 4 to 6 moist
 Chroma—3 or 4 dry or moist
 Texture—loam or silt loam
 Rock fragment content—2 to 10 percent
 Sodium adsorption ratio—13 to 20

2Bknz horizon:

Texture—gravelly loam, gravelly silt loam, or very gravelly loam
 Rock fragment content—25 to 55 percent
 Sodium adsorption ratio—10 to 30

Pedoli Series

Taxonomic classification: Fine-loamy, mixed, superactive, frigid Xeric Haplargids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow in the upper part and very rapid in the lower part

Position on landscape: Fan terraces and outwash fans

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 6 percent

Elevation: 5,000 to 6,500 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 39 to 43 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Pedoli-Whiteknob complex, 2 to 6 percent slopes

Location in survey area: Lemhi County, Idaho; about 5 miles southeast of Salmon; about 800 feet south and 500 feet west of the northeast corner of sec. 35, T. 8 N., R. 22 E.

Typical Pedon

A—0 to 2 inches; pale brown (10YR 6/3) gravelly silt loam, dark brown (10YR 3/3) moist; moderate medium and thin platy structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and common medium roots; common fine and medium irregular pores; 15 percent gravel; neutral (pH 7.2); clear smooth boundary.

Bt1—2 to 15 inches; brown (10YR 5/3) gravelly clay loam, dark brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly

sticky and slightly plastic; common very fine, fine, and medium and few coarse roots; many fine and medium tubular and irregular pores; common faint clay films on faces of peds and in pores; 15 percent gravel; slightly alkaline (pH 7.4); clear wavy boundary.

Bt2—15 to 19 inches; brown (10YR 5/3) very gravelly sandy clay loam, dark brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine, and medium and few coarse roots; many fine and medium tubular pores; common distinct clay films on faces of peds and in pores; 40 percent gravel; slightly alkaline (pH 7.4); gradual wavy boundary.

2Bk1—19 to 32 inches; yellowish brown (10YR 5/4) extremely gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; massive; loose, nonsticky and nonplastic; few very fine and fine roots; common medium irregular pores; 70 percent gravel and 5 percent cobbles; lime coatings 1 millimeter thick on underside of some rock fragments; slightly effervescent; slightly alkaline (pH 7.4); abrupt wavy boundary.

2Bk2—32 to 45 inches; pale brown (10YR 6/3) extremely gravelly loamy coarse sand, brown (10YR 4/3) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; common medium and coarse irregular pores; 75 percent gravel and 5 percent cobbles; lime coatings 1 millimeter thick on underside of some rock fragments; strongly effervescent; slightly alkaline (pH 7.4); gradual wavy boundary.

2Bkq1—45 to 54 inches; yellowish brown (10YR 5/4) extremely gravelly loamy coarse sand, dark yellowish brown (10YR 4/4) moist; single grain; loose, nonsticky and nonplastic; few fine dead roots; common medium and coarse irregular pores; 65 percent gravel and 5 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.

2Bkq2—54 to 60 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose, nonsticky and nonplastic; common medium and coarse irregular pores; 85 percent gravel and 5 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.4).

Range in Characteristics

Profile:

Average annual soil temperature—44 to 46 degrees F

Depth to sand and gravel (2Bk2 horizon)—30 to 40 inches

Particle-size control section:

Clay content—25 to 35 percent

Rock fragment content (average)—15 to 35 percent

A horizon:

Value—3 or 4 moist

Chroma—2 or 3 moist

Bt horizon:

Value—5 or 6 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Texture—gravelly clay loam or very gravelly sandy clay loam

2Bk and 2Bkq horizons:

Value—5 or 6 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Texture—extremely gravelly loamy coarse sand or extremely gravelly sandy loam

Rock fragment content—60 to 90 percent

Reaction—slightly alkaline or moderately alkaline

Penagul Series

Taxonomic classification: Clayey-skeletal, smectitic, frigid, shallow Typic Haplargids

Depth class: Very shallow to bedrock

Drainage class: Well drained

Permeability: Slow

Position on landscape: Ridges and hills

Parent material: Kind—residuum and colluvium; source—tuff

Slope range: 20 to 60 percent

Elevation: 5,000 to 6,000 feet

Average annual precipitation: 6 to 9 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free period: 60 to 80 days

Typical Pedon Location

Map unit in which located: Penagul-Rosebriar complex, 20 to 60 percent slopes

Location in survey area: Custer County, Idaho; in the Penal Gulch Area, about 4 miles northeast of Challis; about 1,000 feet south and 1,600 feet west of the northeast corner of sec. 12, T. 14 N., R. 19 E.

Typical Pedon

E—0 to 2 inches; very pale brown (10YR 7/3) very gravelly clay loam, brown (10YR 5/3) moist; moderate fine angular blocky structure; slightly hard, firm, moderately sticky and moderately plastic; common very fine and fine roots; many very fine and fine irregular pores; 50 percent gravel; neutral (pH 7.3); clear smooth boundary.

Bt—2 to 8 inches; pale brown (10YR 6/3) very gravelly clay loam, brown (10YR 5/3) moist; moderate fine and medium angular blocky structure; slightly hard, firm, very sticky and moderately plastic; many very fine and fine roots; many very fine and fine tubular pores; common distinct clay films on faces of pedes and in pores; 40 percent gravel; slightly alkaline (pH 7.4); clear wavy boundary.

Cr—8 to 18 inches; moderately cemented tuff; some interstices are void of soil material.

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Depth to bedrock—6 to 10 inches

Particle-size control section:

Clay content—35 to 45 percent

Rock fragment content—35 to 50 percent

E horizon:

Value—6 or 7 dry, 4 or 5 moist

Bt horizon:

Value—6 or 7 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Texture—very gravelly clay loam or very gravelly clay

Reaction—neutral or slightly alkaline

Perreau Series

Taxonomic classification: Fine-loamy, mixed, superactive, frigid Xeric Calcicargids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Stream terraces and hills

Parent material: Kind—lacustrine sediment; source—mixed

Slope range: 1 to 45 percent

Elevation: 4,000 to 6,000 feet

Average annual precipitation: 7 to 12 inches

Average annual air temperature: 38 to 46 degrees F

Frost-free period: 70 to 100 days

Typical Pedon Location

Map unit in which located: Packham-Perreau complex, 5 to 15 percent slopes

Location in survey area: Lemhi County, Idaho; about 3 miles north of Baker; about 1,005 feet south and 1,585 feet east of the northwest corner of sec. 22, T. 21 N., R. 23 E.; lat. 45°08'17" N., long. 113°43'23" W.

Typical Pedon

A1—0 to 5 inches; light yellowish brown (10YR 6/4) loam, dark yellowish brown (10YR 4/4) moist; weak thin platy structure; soft, very friable, nonsticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; 10 percent gravel; slightly alkaline (pH 7.4); abrupt smooth boundary.

A2—5 to 8 inches; light yellowish brown (10YR 6/4) gravelly loam, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; 15 percent gravel; neutral (pH 7.1); clear smooth boundary.

Bt—8 to 18 inches; brown (7.5YR 5/4) gravelly clay loam, dark brown (7.5YR 4/4) moist; moderate fine and medium prismatic structure; hard, firm, moderately sticky and moderately plastic; many very fine and fine roots; many very fine and fine tubular pores; many prominent clay films on faces of peds; 15 percent gravel; moderately alkaline (pH 8.2); clear wavy boundary.

Bkz1—18 to 21 inches; yellowish brown (10YR 5/4) gravelly loam, dark yellowish brown (10YR 4/4) moist; hard, firm, moderately sticky and moderately plastic; few very fine and fine roots; many very fine and fine tubular pores; 15 percent gravel; 15 percent weakly cemented cicada nodules; many distinct lime coatings on rock fragments; common lime filaments and salt crystals; violently effervescent; moderately alkaline (pH 8.1); clear wavy boundary.

Bkz2—21 to 27 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; moderate fine prismatic structure parting to moderate thin platy; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine and fine irregular pores; 30 percent gravel; 15 percent weakly cemented cicada nodules; prominent lime coatings on all sides of rock fragments; common lime filaments and salt crystals; violently effervescent; moderately alkaline (pH 7.9); clear wavy boundary.

Bkz3—27 to 37 inches; light yellowish brown (10YR 6/4) very gravelly loam, brown (10YR 4/3) moist; moderate medium angular blocky structure; slightly hard, friable, slightly sticky and plastic; few very fine roots; many very fine and fine irregular pores; 45 percent gravel; 10 percent weakly cemented cicada nodules; prominent lime coatings on all sides of rock fragments; salt crystals in horizon; strongly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Bk1—37 to 51 inches; light yellowish brown (10YR 6/4) very gravelly loam, brown (7.5YR 5/4) moist; weak fine subangular blocky structure; slightly hard, friable,

slightly sticky and slightly plastic; many very fine and fine irregular pores; 60 percent gravel; prominent lime coatings on all sides of rock fragments; strongly effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.

Bk2—51 to 60 inches; very pale brown (10YR 7/4) very gravelly sandy loam, brown (7.5YR 5/4) moist; single grain; loose; many very fine and fine irregular pores; 40 percent gravel and 15 percent cobbles; prominent lime coatings on all sides of rock fragments; strongly effervescent; slightly alkaline (pH 7.6).

Range in Characteristics

Profile:

Average annual soil temperature—43 to 47 degrees F

Depth to calcic horizon—12 to 26 inches

Particle-size control section:

Clay content—18 to 30 percent

Rock fragment content (average)—15 to 35 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Texture—silt loam or loam

Bt horizon:

Hue—7.5YR or 10YR

Value—5 or 6 dry, 4 or 5 moist

Chroma—2 to 4 dry or moist

Texture—gravelly loam, gravelly clay loam, or gravelly silty clay loam

Bkz horizon:

Value—5 or 6 dry, 4 or 5 moist

Chroma—3 or 4 dry or moist

Texture—very gravelly loam, gravelly silt loam, or gravelly loam

Rock fragment content—15 to 50 percent

Calcium carbonate equivalent—15 to 25 percent

Bk horizon:

Hue—7.5YR or 10YR

Value—6 to 8 dry, 5 or 6 moist

Texture—very gravelly loam, extremely gravelly loam, or very gravelly sandy loam

Rock fragment content—45 to 70 percent

Povey Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Pachic Haplocryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains and moraines

Parent material: Kind—colluvium; source—quartzite

Slope range: 15 to 70 percent

Elevation: 6,000 to 9,000 feet

Average annual precipitation: 13 to 20 inches

Average annual air temperature: 35 to 40 degrees F

Frost-free period: 20 to 60 days

Typical Pedon Location

Map unit in which located: Klug-Povey complex, 30 to 60 percent slopes (fig. 12)
Location in survey area: Lemhi County, Idaho; about 4.5 miles northeast of Lemhi;
 about 2,600 feet north and 900 feet east of the southwest corner of sec. 12,
 T. 18 N., R. 24 E.

Typical Pedon

- A—0 to 5 inches; very dark grayish brown (10YR 3/2) gravelly loam, very dark brown (10YR 2/2) moist; moderate very fine and fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine, common medium, and few coarse roots; many very fine and fine tubular pores and common very fine irregular pores; 30 percent gravel; neutral (pH 6.8); gradual smooth boundary.
- AB—5 to 13 inches; dark grayish brown (10YR 4/2) very gravelly loam, very dark brown (10YR 2/2) moist; weak very fine and fine subangular blocky structure parting to moderate very fine and fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and fine, common medium, and few coarse roots; many very fine and fine tubular pores and common very fine irregular pores; 40 percent gravel; neutral (pH 6.8); gradual smooth boundary.
- Bw—13 to 25 inches; dark grayish brown (10YR 4/2) very gravelly loam, very dark brown (10YR 2/2) moist; weak very fine and fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine, common medium, and few coarse roots; many very fine and fine tubular pores and few very fine irregular pores; 40 percent gravel and 10 percent cobbles; neutral (pH 7.0); gradual irregular boundary.
- BC—25 to 35 inches; light yellowish brown (10YR 6/4) very gravelly sandy loam, yellowish brown (10YR 5/4) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine and fine and few medium and coarse roots; common very fine and few fine tubular pores; 40 percent gravel and 15 percent cobbles; neutral (pH 7.1); gradual wavy boundary.
- C—35 to 60 inches; light yellowish brown (10YR 6/4) very gravelly sandy loam, yellowish brown (10YR 5/4) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine and fine and few medium and coarse roots; common very fine and few fine tubular pores; 40 percent gravel and 15 percent cobbles; neutral (pH 7.3)

Range in Characteristics

Profile:

Average annual soil temperature—37 to 41 degrees F
 Average summer soil temperature—54 to 59 degrees F
 Thickness of mollic epipedon—17 to 30 inches

Particle-size control section:

Clay content (average)—10 to 20 percent
 Rock fragment content—35 to 65 percent

A horizon:

Value—3 to 5 dry
 Chroma—2 or 3 moist
 Texture—gravelly loam or very gravelly loam

Bw horizon:

Value—2 to 4 moist
 Chroma—2 to 4 dry or moist
 Texture—very gravelly loam, very gravelly sandy loam, or very cobbly loam

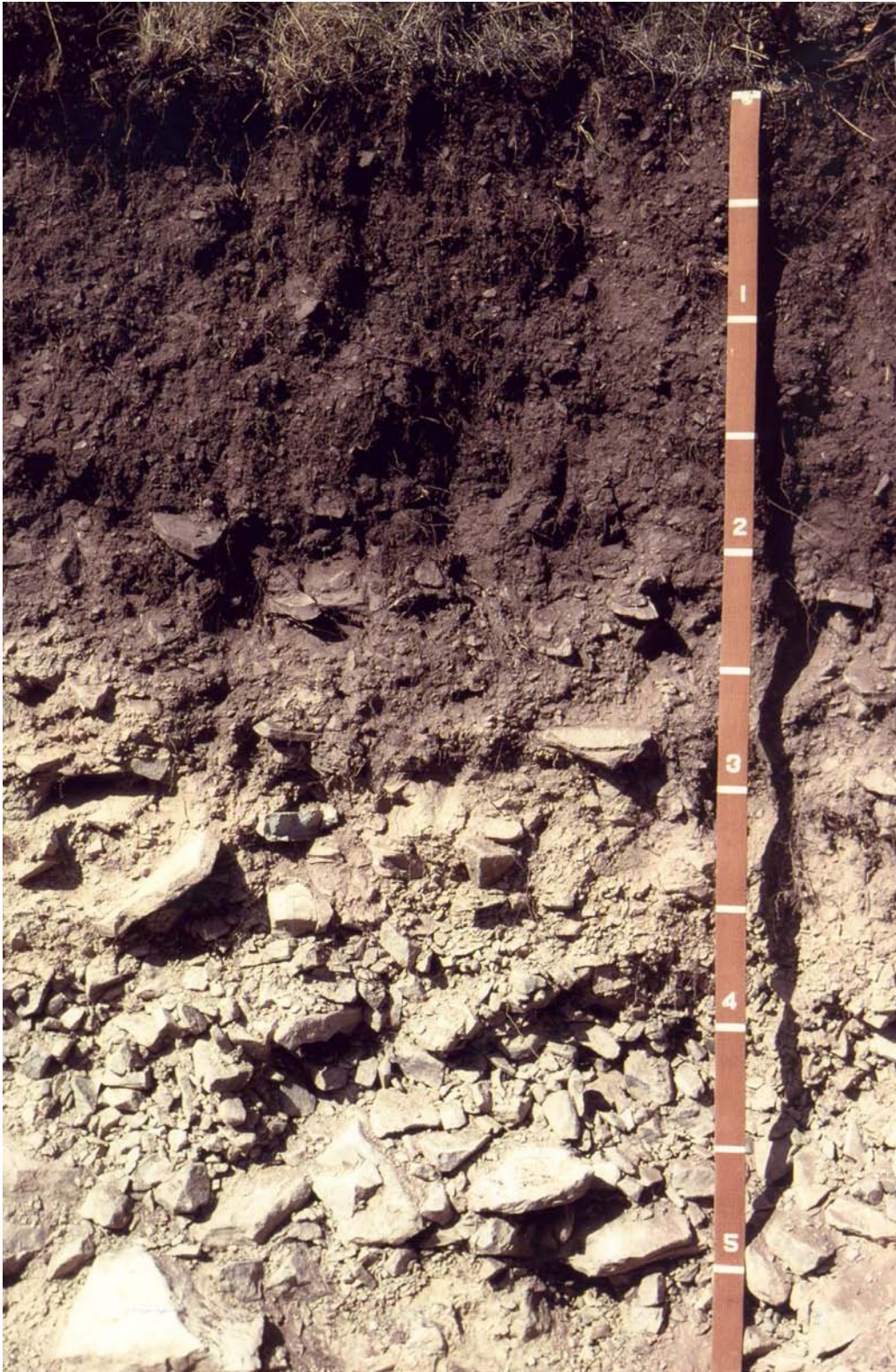


Figure 12.—Typical pedon of Povey gravelly loam in an area of Klug-Povey complex, 30 to 60 percent slopes. This soil formed in colluvium derived from quartzite. The dark-colored surface layer and subsoil are 25 inches thick. The numerals on the tape are in feet.

C horizon:

Hue—10YR or 2.5Y

Value—6 or 7 dry, 3 to 6 moist

Chroma—2 to 5 moist

Texture—extremely gravelly loam, extremely gravelly sandy loam, or very gravelly sandy loam

Reck Series*Taxonomic classification:* Clayey-skeletal, smectitic Vertic Haplocryalfs*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Very slow*Position on landscape:* Ridges and mountains*Parent material:* Kind—colluvium; source—quartzite*Slope range:* 5 to 35 percent*Elevation:* 6,800 to 8,800 feet*Average annual precipitation:* 13 to 18 inches*Average annual air temperature:* 35 to 40 degrees F*Frost-free period:* 20 to 60 days**Typical Pedon Location***Map unit in which located:* Reck-Threeedot complex, 5 to 35 percent slopes*Location in survey area:* Custer County, Idaho; about 3 miles northwest of Clayton; about 1,300 feet east and 650 feet south of the northwest corner of sec. 15, T. 11 N., R. 17 E.**Typical Pedon**

A—0 to 2 inches; brown (7.5YR 4/2) stony loam, dark brown (7.5YR 3/2) moist; weak fine subangular blocky structure parting to weak fine granular; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine irregular and tubular pores; 30 percent gravel, 5 percent cobbles, and 2 percent stones; neutral (pH 7.0); clear wavy boundary.

BA—2 to 5 inches; brown (7.5YR 4/2) very gravelly clay loam, dark brown (7.5YR 3/2) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; many very fine, common fine, and few medium roots; common very fine and fine tubular pores; 25 percent gravel, 15 percent cobbles, and 5 percent stones; neutral (pH 7.0); clear wavy boundary.

Bt—5 to 9 inches; brown (7.5YR 5/4) very cobbly clay, brown (7.5YR 4/4) moist; moderate fine subangular blocky structure; slightly hard, firm, very sticky and very plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores; common distinct clay films on faces of peds and in pores; 20 percent gravel, 25 percent cobbles, and 5 percent stones; neutral (pH 7.2); clear wavy boundary.

Btss1—9 to 20 inches; brown (7.5YR 5/4) very cobbly clay, brown (7.5YR 5/4) moist; strong medium prismatic structure; very hard, very firm, very sticky and very plastic; common very fine and few fine and medium roots; roots more abundant and flattened along faces of peds; common very fine and few fine tubular pores; many prominent clay films on faces of peds and in pores; few slickensides; 20 percent gravel, 25 percent cobbles, and 10 percent stones; neutral (pH 6.7); gradual wavy boundary.

Btss2—20 to 31 inches; light brown (7.5YR 6/4) very stony clay, brown (7.5YR 5/4)

moist; moderate medium prismatic structure parting to moderate fine angular blocky; very hard, very firm, very sticky and very plastic; common very fine and few fine and medium roots; roots more abundant and flattened along faces of peds; common very fine and few fine tubular pores; many distinct and common prominent clay films on faces of peds and in pores; few slickensides; 20 percent gravel, 15 percent cobbles, and 20 percent stones; neutral (pH 6.8); gradual wavy boundary.

B¹t¹—31 to 42 inches; light brown (7.5YR 6/4) very stony clay, brown (7.5YR 5/4) moist; moderate very fine and fine angular blocky structure; hard, firm, very sticky and very plastic; few very fine and fine roots; common very fine and few fine tubular pores; many distinct clay films on faces of peds and in pores; 2 percent visible iron and manganese stains on faces of peds and rock fragments; 20 percent gravel, 15 percent cobbles, and 20 percent stones; neutral (pH 7.2); clear wavy boundary.

B¹t²—42 to 46 inches; pink (7.5YR 7/4) very stony clay loam, yellowish brown (10YR 5/4) moist; moderate very fine and fine angular blocky structure; hard, firm, moderately sticky and moderately plastic; few very fine roots; few very fine tubular pores; many distinct clay films on faces of peds and in pores; 5 percent visible iron and manganese stains on faces of peds and rock fragments; 20 percent gravel, 15 percent cobbles, and 20 percent stones; slightly alkaline (pH 7.6); gradual wavy boundary.

2BC—46 to 60 inches; pink (7.5YR 7/4) very gravelly sandy loam, brown (7.5YR 4/4) moist; weak thin platy structure; slightly hard, friable, nonsticky and nonplastic; few very fine dead roots; few very fine tubular pores; 30 percent gravel; 10 percent by volume pockets of very gravelly sandy clay loam; 5 percent visible iron and manganese stains on faces of peds and rock fragments; slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 40 degrees F
Average summer soil temperature—46 to 50 degrees F
Depth to argillic horizon—2 to 9 inches

Particle-size control section:

Clay content (average)—40 to 60 percent
Rock fragment content—45 to 60 percent

A horizon:

Hue—7.5YR or 10YR
Value—4 or 5 dry
Chroma—2 or 3 dry or moist
Texture—gravelly loam or stony loam

BA horizon:

Hue—7.5YR or 10YR
Value—4 or 5 dry
Chroma—2 or 3 dry or moist
Rock fragment content—40 to 60 percent

Bt, Btss, and B¹t horizons:

Hue—7.5YR or 10YR
Value—5 to 7 dry, 3 to 5 moist
Chroma—4 to 6 dry or moist
Texture—very cobbly clay, very stony clay, very stony clay loam, or very gravelly clay
Rock fragment content—45 to 60 percent
Reaction—neutral or slightly alkaline

Redfish Series

Taxonomic classification: Sandy-skeletal, mixed Typic Cryaquolls

Depth class: Very deep

Drainage class: Poorly drained and very poorly drained

Permeability: Moderate or moderately rapid in the upper part and very rapid in the lower part

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 4 percent

Elevation: 4,500 to 7,400 feet

Average annual precipitation: 8 to 18 inches

Average annual air temperature: 34 to 40 degrees F

Frost-free period: 5 to 60 days

Typical Pedon Location

Map unit in which located: Copperbasin-Redfish complex, 0 to 3 percent slopes

Location in survey area: Blaine County, Idaho; about 2 miles east of Pettit Lake; about 700 feet south and 600 feet west of the northeast corner of sec. 32, T. 8 N., R. 14 E.

Typical Pedon

Oe—3 inches to 0; moderately decomposed grass and roots.

A—0 to 4 inches; grayish brown (10YR 5/2) gravelly sandy loam, very dark grayish brown (2.5Y 3/2) moist; weak fine granular structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine tubular pores; 25 percent gravel; moderately acid (pH 5.8); clear smooth boundary.

Ag1—4 to 8 inches; grayish brown (2.5Y 5/2) very gravelly sandy loam, very dark grayish brown (2.5Y 3/2) moist; few fine prominent masses of iron depletion, brown (10YR 5/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine tubular pores; 45 percent fine gravel; moderately acid (pH 5.8); clear smooth boundary.

Ag2—8 to 15 inches; grayish brown (2.5Y 5/2) very gravelly sandy loam, very dark grayish brown (2.5Y 3/2) moist; common fine prominent masses of iron accumulation, strong brown (7.5YR 5/6) and reddish yellow (7.5YR 6/6) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine and fine tubular pores; 50 percent fine gravel; moderately acid (pH 6.0); gradual smooth boundary.

Ag3—15 to 22 inches; grayish brown (2.5Y 5/2) very gravelly sandy loam, dark grayish brown (2.5Y 4/2) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine tubular pores; 50 percent fine gravel and 5 percent cobbles; moderately acid (pH 6.0); gradual wavy boundary.

2Cg—22 to 60 inches; grayish brown (2.5Y 5/2) extremely gravelly coarse sand, dark grayish brown (2.5Y 4/2) moist; single grain; loose, nonsticky and nonplastic; few very fine roots; common fine irregular pores; 55 percent gravel and 15 percent cobbles; moderately acid (pH 6.0).

Range in Characteristics

Profile:

Average annual soil temperature—34 to 39 degrees F

Average summer soil temperature—44 to 49 degrees F
 Depth to high water table—6 inches above the surface to a depth of 12 inches below the surface in March through November
 Time of year flooding occurs—April through June
 Thickness of mollic epipedon—10 to 16 inches
 Depth to sand and gravel (2Cg horizon)—10 to 22 inches

A and Ag horizons:

Hue—2.5Y, 5Y, or 10YR
 Value—3 to 6 dry, 2 to 4 moist
 Chroma—1 to 3 dry or moist
 Reaction—neutral to moderately acid
 Texture (A horizon)—loam, fine sandy loam, or gravelly sandy loam
 Texture (Ag horizon)—very gravelly sandy loam or gravelly fine sandy loam

2Cg horizon:

Texture—extremely gravelly coarse sand or extremely gravelly loamy coarse sand
 Rock fragment content—60 to 90 percent
 Reaction—neutral to moderately acid

Resoot Series

Taxonomic classification: Clayey-skeletal, smectitic Vertic Argicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Slow

Position on landscape: Ridges, mountains, and moraines

Parent material: Kind—colluvium; source—extrusive igneous rock

Slope range: 5 to 50 percent

Elevation: 5,500 to 8,000 feet

Average annual precipitation: 13 to 18 inches

Average annual air temperature: 34 to 41 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Resoot-Friedman complex, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 5 miles west of Challis, on Big Hill; about 1,800 feet south and 1,400 feet east of the northwest corner of sec. 3, T. 13 N., R. 18 E.

Typical Pedon

- A1—0 to 3 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; weak thin platy structure; soft, friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 15 percent gravel and 5 percent cobbles; slightly acid (pH 6.3); clear smooth boundary.
- A2—3 to 12 inches; dark grayish brown (10YR 4/2) very gravelly loam, very dark grayish brown (10YR 3/2) moist; weak coarse prismatic structure; slightly hard, firm, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 35 percent gravel and 15 percent cobbles; most rock fragments are in a stone line near lower boundary; slightly acid (pH 6.3); clear smooth boundary.
- Btss—12 to 22 inches; brown (7.5YR 5/4) very gravelly clay, dark brown (7.5YR 4/4) moist; strong medium prismatic structure parting to strong fine and medium angular

blocky; very hard, very firm, very sticky and very plastic; few medium and coarse roots; many very fine and fine tubular pores; many prominent clay films on faces of peds and in pores; few slickensides; 40 percent gravel and 10 percent cobbles; neutral (pH 6.6); gradual smooth boundary.

Btk1—22 to 32 inches; yellowish brown (10YR 5/4) very gravelly clay, strong brown (7.5YR 4/6) moist; moderate coarse prismatic structure parting to moderate coarse angular blocky; very hard, very firm, very sticky and very plastic; few very fine and fine roots; many very fine and fine tubular pores; common distinct clay films on faces of peds and in pores; 45 percent gravel and 5 percent cobbles; few lime coatings 1 to 3 millimeters thick on underside and some sides of rock fragments; neutral (pH 7.3); gradual wavy boundary.

Btk2—32 to 60 inches; light yellowish brown (10YR 6/4) very gravelly clay, yellowish brown (10YR 5/6) moist; weak coarse prismatic structure; hard, firm, moderately sticky and moderately plastic; common very fine and fine roots; many very fine and fine tubular pores; common distinct clay films on faces of peds in areas without lime; 40 percent gravel and 5 percent cobbles; lime coatings 1 to 5 millimeters thick on all sides of rock fragments; violently effervescent; slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 40 degrees F

Average summer soil temperature—46 to 50 degrees F

Thickness of mollic epipedon—10 to 14 inches

Depth to secondary carbonates—22 to 36 inches

Particle-size control section:

Clay content (average)—35 to 50 percent

Rock fragment content (average)—40 to 65 percent

A horizon:

Value—2 to 4 dry or moist

Chroma—1 to 3 dry or moist

Btss horizon:

Hue—7.5YR or 10YR

Value—3 to 5 dry or moist

Chroma—3 or 4 dry or moist

Texture—very gravelly clay loam or very gravelly clay

Btk horizon:

Hue—7.5YR or 10YR

Value—4 to 7 dry or moist

Chroma—2 to 6 dry or moist

Texture—very gravelly clay, extremely gravelly clay, or very gravelly clay loam

Rock fragment content—45 to 80 percent

Reaction—neutral or slightly alkaline

Ringle Series

Taxonomic classification: Sandy-skeletal, carbonatic, frigid Typic Haplocalcids

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and rapid in the lower part

Position on landscape: Fan terraces

Parent material: Kind—alluvium; source—limestone

Slope range: 2 to 8 percent

Elevation: 4,500 to 5,500 feet

Average annual precipitation: 6 to 8 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Ringle gravelly loam, 2 to 8 percent slopes

Location in survey area: Custer County, Idaho; about 9 miles southwest of Patterson; about 2,500 feet west and 1,700 feet north of the southeast corner of sec. 10, T. 13 N., R. 22 E.; lat. 44°28'06" N., long. 113°50'17" W.

Typical Pedon

Akq—0 to 4 inches; pale brown (10YR 6/3) gravelly loam, dark brown (10YR 4/3) moist; moderate very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine irregular and tubular pores; 25 percent gravel; lime and silica coatings as much as 3 millimeters thick on underside of rock fragments; slightly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Bkq1—4 to 9 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 5/3) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and few fine and medium roots; many very fine irregular pores and common very fine tubular pores; 45 percent gravel; lime and silica coatings as much as 3 millimeters thick on underside of rock fragments; strongly effervescent (60 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.

Bkq2—9 to 16 inches; grayish brown (10YR 5/2) very gravelly sandy loam, dark grayish brown (10YR 4/2) moist; single grain; loose; many very fine and few fine roots; many very fine irregular pores; 55 percent gravel; lime and silica coatings 3 millimeters thick on underside of rock fragments; strongly effervescent (70 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.

2Bkq3—16 to 41 inches; grayish brown (10YR 5/2) extremely gravelly loamy sand, very dark grayish brown (10YR 3/2) moist; single grain; loose, nonsticky and nonplastic; many very fine roots; many very fine irregular pores; 75 percent gravel and 5 percent cobbles; minor lime and silica cementation of sand and gravel; violently effervescent (70 percent calcium carbonate equivalent); slightly alkaline (pH 7.7); gradual wavy boundary.

2Bkq4—41 to 60 inches; grayish brown (10YR 5/2) extremely gravelly loamy sand, very dark grayish brown (10YR 3/2) moist; single grain; loose, nonsticky and nonplastic; many very fine irregular pores; 65 percent gravel and 5 percent cobbles; minor lime and silica cementation of sand and gravel; strongly effervescent (74 percent calcium carbonate equivalent); moderately alkaline (pH 8.2).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Reaction—slightly alkaline to strongly alkaline

Depth to sand and gravel (2Bkq horizon)—10 to 20 inches

Particle-size control section:

Clay content (average)—4 to 10 percent

Rock fragment content (average)—60 to 80 percent
 Calcium carbonate equivalent (average)—50 to 80 percent

Akq horizon:

Value—4 or 5 moist
 Chroma—2 or 3 moist

Bkq horizon:

Value—5 or 6 dry, 4 or 5 moist
 Chroma—2 to 4 dry or moist
 Texture—gravelly loam, very gravelly loam, or very gravelly sandy loam
 Rock fragment content—20 to 55 percent

2Bkq horizon:

Value—5 to 7 dry, 3 or 4 moist
 Chroma—2 or 3 dry or moist
 Rock fragment content—60 to 80 percent

Rosebriar Series

Taxonomic classification: Clayey-skeletal, smectitic, frigid, shallow Xeric
 Haplargids

Depth class: Shallow to bedrock

Drainage class: Well drained

Permeability: Slow

Position on landscape: Hills

Parent material: Kind—residuum and colluvium; source—tuff

Slope range: 20 to 60 percent

Elevation: 5,000 to 6,000 feet

Average annual precipitation: 6 to 9 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free period: 60 to 80 days

Typical Pedon Location

Map unit in which located: Penagul-Rosebriar complex, 20 to 60 percent slopes

Location in survey area: Custer County, Idaho; about 3 miles northeast of Challis;
 about 250 feet north and 500 feet east of the southwest corner of sec. 13,
 T. 14 N., R. 19 E.

Typical Pedon

E—0 to 2 inches; pale brown (10YR 6/3) gravelly sandy loam, brown (10YR 4/3) moist;
 weak thin platy structure parting to weak fine granular; soft, very friable, slightly
 sticky and nonplastic; common very fine and fine and few medium roots; many
 very fine and fine irregular pores; 30 percent gravel; slightly alkaline (pH 7.4);
 clear smooth boundary.

Bt—2 to 7 inches; brown (10YR 5/3) very gravelly clay, brown (10YR 4/3) moist;
 moderate fine angular blocky structure; hard, firm, moderately sticky and
 moderately plastic; common very fine and few medium roots; many very fine and
 fine tubular pores; common distinct clay films on faces of peds and in pores;
 40 percent gravel; slightly alkaline (pH 7.6); gradual smooth boundary.

Btk—7 to 12 inches; light yellowish brown (10YR 6/4) very gravelly clay, dark yellowish
 brown (10YR 4/4) moist; moderate medium and coarse angular blocky structure;
 hard, firm, very sticky and very plastic; few very fine roots; many very fine and fine
 tubular pores; many distinct clay films on faces of peds and in pores; 45 percent

gravel; few thin coatings of lime on underside of rock fragments; slightly alkaline (pH 7.6); gradual smooth boundary.

Bk—12 to 17 inches; very pale brown (10YR 7/3) extremely gravelly sandy clay loam, brown (10YR 5/3) moist; moderate fine subangular blocky structure; slightly hard, firm, moderately sticky and slightly plastic; few very fine roots; many very fine and fine irregular pores; 50 percent gravel and 15 percent flagstones; many lime coatings 1 to 2 millimeters thick on underside and some sides of rock fragments; violently effervescent; moderately alkaline (pH 8.4); gradual wavy boundary.

Cr—17 to 27 inches; moderately cemented tuff.

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Depth to bedrock—14 to 20 inches

Particle-size control section:

Clay content—35 to 45 percent

Rock fragment content—35 to 50 percent

E horizon:

Value—6 or 7 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Bt horizon:

Value—4 to 6 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Texture—very gravelly clay or very gravelly clay loam

Bk horizon:

Chroma—3 or 4 dry or moist

Sactus Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, calcareous, frigid Lithic Torriorthents

Depth class: Very shallow to bedrock

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Ridges

Parent material: Kind—residuum; source—extrusive igneous rock

Slope range: 10 to 25 percent

Elevation: 5,200 to 6,200 feet

Average annual precipitation: 6 to 8 inches

Average annual air temperature: 38 to 41 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Farvant-Sactus-Dawtonia complex, 10 to 40 percent slopes

Location in survey area: Custer County, Idaho; about 6 miles east of Challis, in Leaton Gulch; about 2,500 feet east and 3,000 feet south of the northwest corner of sec. 32, T. 14 N., R. 20 E.

Typical Pedon

A1—0 to 2 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist;

weak thin platy structure parting to weak fine granular; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium and coarse roots; many fine and very fine irregular pores; 35 percent gravel and 2 percent cobbles; slightly effervescent; moderately alkaline (pH 7.9); clear smooth boundary.

A2—2 to 5 inches; yellowish brown (10YR 5/4) extremely gravelly loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 60 percent fine gravel and 5 percent cobbles; slightly effervescent; moderately alkaline (pH 8.2); gradual smooth boundary.

AC—5 to 9 inches; yellowish brown (10YR 5/4) extremely gravelly loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few fine and medium roots; many fine and very fine irregular pores; 70 percent gravel and 15 percent cobbles; slightly effervescent; moderately alkaline (pH 8.2); abrupt wavy boundary.

R—9 to 19 inches; indurated rhyolite.

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Depth to bedrock—6 to 10 inches

Particle-size control section:

Clay content—12 to 20 percent

Rock fragment content (average)—55 to 85 percent

A horizon:

Value—4 to 6 dry

AC horizon:

Value—4 to 6 dry

Chroma—3 or 4 dry or moist

Texture—extremely flaggy loam or extremely gravelly loam

San crane Series

Taxonomic classification: Fine-loamy over sandy or sandy-skeletal, mixed, superactive, calcareous Typic Cryaquepts

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Flood plains and stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 4,800 to 6,400 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free period: 25 to 45 days

Typical Pedon Location

Map unit in which located: Thosand-San crane complex, 0 to 2 percent slopes

Location in survey area: Custer County, Idaho; about 1 mile northeast of Chilly Buttes; about 600 feet north and 800 feet east of the southwest corner of sec. 20, T. 9 N., R. 22 E.; lat. 44°05'23" N., long. 113°52'45" W.

Typical Pedon

- Akg—0 to 2 inches; light brownish gray (2.5Y 6/2) silt loam, grayish brown (2.5Y 5/2) moist; moderate thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine, fine, and medium roots; common very fine and fine tubular and irregular pores; common lime filaments in matrix; violently effervescent (35 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear smooth boundary.
- Bkg1—2 to 8 inches; light gray (2.5Y 7/2) silt loam, grayish brown (2.5Y 5/2) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine, fine, and medium roots; many very fine and fine tubular and irregular pores; common lime filaments in matrix; violently effervescent (30 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.
- Bkg2—8 to 15 inches; light gray (2.5Y 7/2) silt loam, grayish brown (2.5Y 5/2) moist; weak medium subangular blocky structure; slightly hard, very friable, sticky and plastic; common fine and medium roots; common fine and medium tubular and irregular pores; strongly effervescent (25 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.
- Bkg3—15 to 24 inches; light brownish gray (2.5Y 6/2) silt loam, olive gray (5Y 4/2) moist; common fine and medium distinct masses of iron depletion, gray (N 5/0) moist; moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine tubular and irregular pores; strongly effervescent (25 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear smooth boundary.
- 2C1—24 to 31 inches; light brownish gray (2.5Y 6/2) very gravelly loamy sand, olive (5Y 4/3) moist; single grain; loose, nonsticky and nonplastic; few fine roots; many medium and coarse irregular pores; 45 percent gravel; slightly effervescent (10 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear smooth boundary.
- 2C2—31 to 60 inches; light brownish gray (2.5Y 6/2) extremely gravelly loamy coarse sand, olive gray (5Y 4/2) moist; single grain; loose, nonsticky and nonplastic; many medium and coarse irregular pores; 65 percent gravel; slightly effervescent (10 percent calcium carbonate equivalent); slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 42 degrees F

Average summer soil temperature—40 to 43 degrees F

Depth to high water table—12 inches above the surface to a depth of 12 inches below the surface in November through July

Depth to sand and gravel (2C horizon)—20 to 35 inches

Akg horizon:

Hue—2.5Y or 10YR

Value—6 or 7 dry, 4 or 5 moist

Chroma—2 or 3 moist

Calcium carbonate equivalent—25 to 35 percent

Bkg horizon:

Hue—2.5Y or 5Y

Value—6 to 8 dry, 4 to 6 moist

Chroma—2 or 3 dry or moist

Rock fragment content—0 to 10 percent

Clay content—18 to 26 percent

Calcium carbonate equivalent—15 to 30 percent
 Reaction—slightly alkaline or moderately alkaline

2C horizon:

Hue—2.5Y or 5Y
 Chroma—2 or 3 dry or moist
 Texture—very gravelly loamy sand or extremely gravelly loamy coarse sand
 Clay content—0 to 5 percent
 Rock fragment content—45 to 75 percent
 Calcium carbonate equivalent—2 to 10 percent

Sanfelipe Series

Taxonomic classification: Loamy-skeletal, carbonatic, frigid Aridic Calcixerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid in the lower part

Position on landscape: Fan terraces, alluvial fans, and outwash fans

Parent material: Kind—alluvium; source—limestone and calcareous siltstone and sandstone

Slope range: 5 to 20 percent

Elevation: 6,000 to 7,000 feet

Average annual precipitation: 9 to 11 inches

Average annual air temperature: 37 to 41 degrees F

Frost-free period: 50 to 90 days

Typical Pedon Location

Map unit in which located: Sanfelipe complex, 5 to 15 percent slopes

Location in survey area: Custer County, Idaho; about 3 miles north of the intersection of Double Springs Pass Road and U.S. Highway 93; about 1,900 feet south and about 500 feet west of the northeast corner of sec. 24, T. 10 N., R. 21 E.; lat. 44°07'52" N., long. 113°54'45" W.

Typical Pedon

- A1—0 to 5 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak thin platy structure parting to weak fine granular; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; many very fine irregular pores; 15 percent gravel; slightly alkaline (pH 7.5); clear smooth boundary.
- A2—5 to 9 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine granular structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine irregular pores; 25 percent gravel; slightly effervescent; slightly alkaline (pH 7.6); abrupt smooth boundary.
- Bk1—9 to 20 inches; light gray (10YR 7/2) very gravelly loam, grayish brown (10YR 5/2) moist; weak medium subangular blocky structure; hard, firm, slightly sticky and slightly plastic; few very fine roots; few fine irregular pores; 40 percent gravel; prominent lime coatings on underside of rock fragments; violently effervescent (25 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear smooth boundary.
- Bk2—20 to 30 inches; grayish brown (10YR 5/2) extremely gravelly sandy loam, dark grayish brown (10YR 4/2) moist; weak coarse subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few fine roots; few very fine irregular pores; 60 percent gravel; prominent lime coatings on underside of rock fragments; violently effervescent (70 percent calcium carbonate equivalent); moderately alkaline (pH 8.3); gradual smooth boundary.

Bkq—30 to 60 inches; light brownish gray (10YR 6/2) extremely gravelly loamy coarse sand, dark grayish brown (10YR 4/2) moist; single grain; loose, nonsticky and nonplastic; 70 percent gravel; prominent lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; violently effervescent (65 percent calcium carbonate equivalent); slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 42 degrees F

Depth to calcic horizon—6 to 12 inches

Thickness of mollic epipedon—8 to 12 inches

Depth to sand and gravel (Bkq horizon)—25 to 40 inches

Particle-size control section:

Clay content—10 to 20 percent

Rock fragment content (average)—40 to 65 percent

Calcium carbonate equivalent (average)—40 to 60 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Bk horizon:

Value—5 to 7 dry, 4 or 5 moist

Chroma—1 or 2 dry or moist

Texture—very gravelly loam, very gravelly sandy loam, or extremely gravelly sandy loam

Rock fragment content—40 to 65 percent

Reaction—slightly alkaline or moderately alkaline

Bkq horizon:

Value—4 to 6 dry or moist

Chroma—1 or 2 dry or moist

Texture—extremely gravelly loamy coarse sand, extremely gravelly sandy loam, or very gravelly sandy loam

Rock fragment content—40 to 80 percent

Reaction—slightly alkaline or moderately alkaline

Shenon Series

Taxonomic classification: Fine-loamy, mixed, superactive, frigid Calcargidic Argixerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Fan terraces

Parent material: Kind—alluvium; source—extrusive igneous rock

Slope range: 1 to 20 percent

Elevation: 3,700 to 6,000 feet

Average annual precipitation: 9 to 13 inches

Average annual air temperature: 37 to 46 degrees F

Frost-free period: 50 to 100 days

Typical Pedon Location

Map unit in which located: Shenon loam, 5 to 15 percent slopes

Location in survey area: Lemhi County, Idaho; about 3.5 miles northwest of Lemhi; 2,000 feet north and 2,600 feet east of the southwest corner of sec. 24, T. 18 N., R. 23 E.; lat. 44°52'25" N., long. 113°40'45" W.

Typical Pedon

- A—0 to 4 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; weak very thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and few fine, medium, and coarse roots; many very fine irregular pores; 10 percent gravel; neutral (pH 7.2); clear wavy boundary.
- Bt1—4 to 9 inches; brown (10YR 5/3) clay loam, dark brown (10YR 3/3) moist; moderate very thin and thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine, medium, and coarse roots; many very fine irregular pores; common faint clay films on faces of peds and in pores; 5 percent gravel; slightly alkaline (pH 7.6); clear wavy boundary.
- Bt2—9 to 14 inches; pale brown (10YR 6/3) gravelly clay loam, dark brown (10YR 4/3) moist; strong very fine, fine, and medium subangular blocky structure; hard, firm, moderately sticky and moderately plastic; common very fine and few fine and medium roots; common very fine irregular pores and few very fine tubular pores; many faint clay films on faces of peds and in pores; 20 percent gravel; moderately alkaline (pH 8.0); abrupt wavy boundary.
- Bk1—14 to 21 inches; very pale brown (10YR 7/3) gravelly clay loam, brown (10YR 5/3) moist; moderate very fine, fine, and medium subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; common very fine and few fine roots; common very fine irregular pores; 30 percent gravel; strongly effervescent; strongly alkaline (pH 8.8); clear wavy boundary.
- Bk2—21 to 24 inches; very pale brown (10YR 7/3) gravelly clay loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine tubular and irregular pores; 20 percent gravel and 5 percent cobbles; strongly effervescent; strongly alkaline (pH 8.8); gradual wavy boundary.
- Bk3—24 to 40 inches; very pale brown (10YR 7/4) gravelly loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; many very fine irregular pores; 30 percent gravel; strongly effervescent; strongly alkaline (pH 8.6); gradual wavy boundary.
- Bk4—40 to 60 inches; very pale brown (10YR 7/4) loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; 10 percent gravel; strongly effervescent; strongly alkaline (pH 8.8).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 45 degrees F

Depth to calcic horizon—9 to 16 inches

Thickness of mollic epipedon—7 to 12 inches

Particle-size control section:

Clay content—24 to 34 percent

Rock fragment content—5 to 30 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Bt horizon:

Value—5 or 6 dry, 3 or 4 moist

Texture—clay loam, loam, or gravelly clay loam

Reaction—slightly alkaline or moderately alkaline

Bk horizon:

Hue—7.5YR or 10YR

Value—6 or 7 dry, 4 to 7 moist

Chroma—3 to 6 dry or moist

Texture—loam, gravelly loam, cobbly loam, clay loam, or gravelly clay loam

Rock fragment content—5 to 30 percent

Calcium carbonate equivalent—15 to 25 percent

Simeroi Series*Taxonomic classification:* Loamy-skeletal, carbonatic, frigid Xeric Haplocalcids*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Moderate in the upper part and moderate to very rapid in the lower part*Position on landscape:* Outwash fans, fan terraces, and hills*Parent material:* Kind—alluvium; source—limestone*Slope range:* 2 to 60 percent*Elevation:* 5,500 to 7,000 feet*Average annual precipitation:* 8 to 11 inches*Average annual air temperature:* 38 to 44 degrees F*Frost-free period:* 50 to 100 days**Typical Pedon Location***Map unit in which located:* Whitecloud-Simeroi complex, 2 to 8 percent slopes*Location in survey area:* Lemhi County, Idaho; about 36 miles southeast of Leadore; 2,300 feet north and 600 feet west of the southeast corner of sec. 19, T. 11 N., R. 30 E.; lat. 44°15'57" N., long. 112°54'57" W.**Typical Pedon**

- A1—0 to 3 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; weak very fine and fine subangular blocky structure parting to weak very fine and fine granular; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; many very fine and fine irregular pores; 20 percent gravel; slightly alkaline (pH 7.6); abrupt wavy boundary.
- A2—3 to 7 inches; pale brown (10YR 6/3) very gravelly loam, dark yellowish brown (10YR 3/4) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; many very fine irregular pores; 40 percent gravel; strongly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.
- Bk—7 to 10 inches; light yellowish brown (10YR 6/4) very gravelly loam, brown (10YR 4/3) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 30 percent gravel and 5 percent cobbles; strongly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.
- Bkq1—10 to 16 inches; very pale brown (10YR 7/3) very gravelly loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; few very fine tubular and irregular pores; 40 percent gravel and 5 percent cobbles; lime and silica pendants 1 to 4 millimeters thick on underside of rock fragments; violently effervescent (65 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.
- Bkq2—16 to 23 inches; light gray (10YR 7/2) very gravelly sandy loam, brown (10YR

5/3) moist; massive; 20 percent hard and 80 percent slightly hard, 20 percent firm and 80 percent friable, slightly sticky and slightly plastic; few very fine roots; few very fine irregular pores; 45 percent gravel and 5 percent cobbles; lime and silica coatings 1 to 4 millimeters thick on underside and sides of rock fragments; violently effervescent (65 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.

Bkq3—23 to 54 inches; pale brown (10YR 6/3) very gravelly sandy loam, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine roots; many very fine and common fine irregular pores; 45 percent gravel and 10 percent cobbles; lime and silica coatings 1 to 4 millimeters thick on underside of rock fragments; violently effervescent (65 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); clear wavy boundary.

2Bkq4—54 to 60 inches; pale brown (10YR 6/3) extremely gravelly coarse sand, brown (10YR 5/3) moist; single grain; loose, nonsticky and nonplastic; few very fine dead roots; few very fine and fine irregular pores; 55 percent gravel and 5 percent cobbles; lime and silica coatings as much as 1 millimeter thick on underside of rock fragments; violently effervescent; strongly alkaline (pH 8.6).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 46 degrees F

Depth to secondary carbonates—0 to 5 inches

Depth to calcic horizon—2 to 11 inches

Depth to sand and gravel (2Bkq horizon)—30 to 60 inches or more

Particle-size control section:

Clay content—10 to 20 percent

Rock fragment content—40 to 60 percent

Calcium carbonate equivalent—40 to 70 percent

Reaction—slightly alkaline or moderately alkaline

A horizon:

Value—5 to 7 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Texture—gravelly loam or very gravelly silt loam

Bk and Bkq horizons:

Value—4 to 7 dry or moist

Chroma—2 to 4 dry, 2 to 6 moist

Texture—very gravelly loam, extremely gravelly loam, very gravelly sandy loam, extremely gravelly coarse sandy loam, or extremely gravelly sandy loam

2Bkq horizon (where present):

Texture—extremely gravelly coarse sand or very gravelly loamy coarse sand

Skibo Series

Taxonomic classification: Loamy-skeletal, carbonatic Xeric Calcicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains

Parent material: Kind—colluvium; source—limestone

Slope range: 20 to 50 percent

Elevation: 6,600 to 8,500 feet

Average annual precipitation: 11 to 20 inches

Average annual air temperature: 32 to 40 degrees F

Frost-free period: 10 to 50 days

Typical Pedon Location

Map unit in which located: Nitchly-Skibo-Rock outcrop complex, 20 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 1 mile southwest of Willow Creek Summit; about 1,100 feet south and 450 feet east of the northwest corner of sec. 9, T. 10 N., R. 21 E.; lat. 44°12'50" N., long. 113°59'17" W.

Typical Pedon

Oi—1 inch to 0; slightly decomposed leaves and twigs.

A—0 to 4 inches; dark grayish brown (10YR 4/2) very stony loam, very dark brown (10YR 2/2) moist; weak very fine granular structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine and fine irregular and tubular pores; 25 percent gravel, 35 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.6); clear wavy boundary.

Bw—4 to 9 inches; brown (10YR 5/3) extremely cobbly loam, dark brown (10YR 3/3) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common fine and few very fine roots; common very fine and fine irregular and tubular pores; 25 percent gravel, 35 percent cobbles, and 5 percent stones; lime coatings less than 1 millimeter thick on underside and some sides of rock fragments; slightly effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.

Bk1—9 to 19 inches; yellowish brown (10YR 5/4) extremely cobbly loam, dark brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; hard, firm, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine irregular and tubular pores; 35 percent gravel, 25 percent cobbles, and 15 percent stones; lime coatings 1 to 2 millimeters thick on all surfaces of rock fragments; violently effervescent; moderately alkaline (pH 8.2); clear wavy boundary.

Bk2—19 to 26 inches; pale brown (10YR 6/3) extremely gravelly loam, brown (10YR 5/3) moist; moderate fine and medium subangular blocky structure; hard, firm, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine irregular and tubular pores; 35 percent gravel, 25 percent cobbles, and 10 percent stones; lime coatings 1 to 2 millimeters thick on all surfaces of rock fragments; violently effervescent; moderately alkaline (pH 8.2); clear wavy boundary.

Bk3—26 to 34 inches; light gray (10YR 7/2) extremely gravelly loam, pale brown (10YR 6/3) moist; massive; slightly hard, firm, slightly sticky and slightly plastic; few very fine roots; common very fine and fine tubular and irregular pores; 50 percent gravel, 20 percent cobbles, and 10 percent stones; lime coatings 1 to 2 millimeters thick on all surfaces of rock fragments; common soft masses of secondary lime; violently effervescent; moderately alkaline (pH 8.2); gradual smooth boundary.

Bk4—34 to 60 inches; light gray (10YR 7/2) extremely gravelly fine sandy loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; common very fine and fine irregular and tubular pores; 60 percent gravel, 5 percent cobbles, and 5 percent stones; lime coatings 1 to 2 millimeters thick on all surfaces of rock fragments; common masses of secondary lime; violently effervescent; moderately alkaline (pH 8.4).

Range in Characteristics

Profile:

Average annual soil temperature—34 to 42 degrees F
 Average summer soil temperature—46 to 55 degrees F
 Thickness of mollic epipedon—8 to 12 inches
 Depth to calcic horizon—5 to 10 inches

Particle-size control section:

Clay content—13 to 22 percent
 Rock fragment content—65 to 85 percent
 Calcium carbonate equivalent—40 to 80 percent

A horizon:

Value—3 or 4 dry, 2 or 3 moist
 Chroma—1 to 3 dry or moist
 Texture—stony loam or very stony loam

Bk horizon:

Value—5 to 7 dry, 3 to 6 moist
 Chroma—1 to 4 dry or moist
 Texture—extremely cobbly loam, extremely gravelly loam, extremely gravelly sandy loam, very gravelly loam, or extremely cobbly sandy loam
 Rock fragment content—55 to 90 percent
 Reaction—slightly alkaline or moderately alkaline

Smout Series

Taxonomic classification: Sandy-skeletal, mixed, frigid Torrifuventic Haploxerolls

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 3,900 to 5,100 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 40 to 42 degrees F

Frost-free period: 70 to 90 days

Typical Pedon Location

Map unit in which located: Smout-Cowbone complex, 0 to 2 percent slopes

Location in survey area: Lemhi County, Idaho; about 7 miles north of Salmon; about 2,000 feet west and 1,000 feet north of the southeast corner of sec. 6, T. 22 N., R. 22 E.; lat. 45°15'41" N., long. 113°53'31" W.

Typical Pedon

A—0 to 7 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; soft, very friable, nonsticky and slightly plastic; many very fine, fine, and medium roots; common fine pores; 25 percent gravel; slightly alkaline (pH 7.4); clear smooth boundary.
 AC—7 to 12 inches; grayish brown (10YR 5/2) extremely gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure

parting to weak fine granular; soft, very friable, nonsticky and nonplastic; many very fine and fine roots; many fine irregular pores; 65 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.6); clear smooth boundary.

C1—12 to 26 inches; multicolored extremely gravelly sand; few fine prominent masses of iron accumulation that are yellowish brown (10YR 5/6) moist and are on rock fragments; single grain; loose, nonsticky and nonplastic; common fine roots; many fine irregular pores; 75 percent gravel and 10 percent cobbles; slightly alkaline (pH 7.6); clear smooth boundary.

C2—26 to 60 inches; multicolored extremely gravelly coarse sand; few fine prominent masses of iron accumulation that are yellowish brown (10YR 5/6) moist and are on rock fragments; single grain; loose, nonsticky and nonplastic; many fine irregular pores; 65 percent gravel and 25 percent cobbles; slightly alkaline (pH 7.4).

Range in Characteristics

Profile:

Average annual soil temperature—42 to 44 degrees F

Depth to redoximorphic accumulations—12 to 48 inches

Depth to high water table—48 to 72 inches in April through June

Time of year flooding occurs—January through June

Thickness of mollic epipedon—10 to 20 inches

Depth to sand and gravel (C horizon)—10 to 20 inches

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Reaction—slightly alkaline or moderately alkaline

Texture—loam or gravelly loam

AC horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Reaction—slightly alkaline or moderately alkaline

Texture—extremely gravelly sandy loam, extremely gravelly loam, or very gravelly fine sandy loam

Rock fragment content—55 to 75 percent

C horizon:

Reaction—slightly alkaline or moderately alkaline

Texture—extremely gravelly sand, extremely gravelly coarse sand, or extremely gravelly loamy coarse sand

Rock fragment content—65 to 90 percent

Snowslide Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Typic Haplocalcids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Fan terraces and hills

Parent material: Kind—alluvium and colluvium; source—mixed, but high amount of limestone

Slope range: 1 to 40 percent

Elevation: 4,000 to 6,500 feet

Average annual precipitation: 6 to 9 inches

Average annual air temperature: 38 to 45 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Snowslide very gravelly loam, 1 to 6 percent slopes

Location in survey area: Custer County, Idaho; about 4.5 miles east of Challis; about 250 feet south and 1,700 feet east of the northwest corner of sec. 31, T. 14 N., R. 20 E.

Typical Pedon

- A1—0 to 3 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 4/3) moist; weak thin and medium platy structure; soft, very friable, slightly sticky and slightly plastic; few very fine and common fine roots; common very fine and few fine and medium vesicular pores; 40 percent gravel; strongly effervescent; moderately alkaline (pH 8.0); clear smooth boundary.
- A2—3 to 9 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 4/3) moist; weak medium and coarse subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; common very fine irregular pores; 20 percent gravel and 15 percent cobbles; few fine and medium soft masses of lime; slightly effervescent; moderately alkaline (pH 8.0); clear smooth boundary.
- Bk1—9 to 21 inches; light gray (10YR 7/2) extremely gravelly loam, very pale brown (10YR 7/3) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; common very fine and few fine irregular pores; 40 percent gravel and 25 percent cobbles; disseminated lime throughout; violently effervescent; moderately alkaline (pH 8.4); clear wavy boundary.
- Bk2—21 to 30 inches; pale brown (10YR 6/3) extremely gravelly sandy loam, dark brown (10YR 3/3) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine and common fine irregular pores; 85 percent gravel; disseminated lime throughout; violently effervescent; slightly alkaline (pH 7.6); clear wavy boundary.
- Bk3—30 to 38 inches; light yellowish brown (10YR 6/4) extremely gravelly loam, dark brown (10YR 4/3) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; common very fine and fine irregular pores; 90 percent gravel; filaments and soft masses of lime; violently effervescent; moderately alkaline (pH 8.0); abrupt smooth boundary.
- Bk4—38 to 55 inches; pale brown (10YR 6/3) extremely gravelly loam, dark brown (10YR 4/3) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine and fine irregular pores; 90 percent gravel; strongly effervescent; moderately alkaline (pH 8.0); abrupt smooth boundary.
- 2Bk5—55 to 60 inches; very pale brown (10YR 7/3) gravelly loam, light yellowish brown (10YR 6/4) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common fine tubular pores; 25 percent gravel; violently effervescent; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Average annual soil temperature—41 to 45 degrees F

Depth to calcic horizon—7 to 12 inches

Reaction—slightly alkaline or moderately alkaline

Particle-size control section:

Clay content (average)—10 to 18 percent

Rock fragment content—50 to 90 percent

A horizon:

Value—5 to 7 dry, 4 or 5 moist

Texture—gravelly loam, very gravelly loam, or silt loam

Bk horizon:

Value—5 to 8 dry, 3 to 7 moist

Chroma—2 to 4 dry or moist

Texture—extremely cobbly loam, extremely gravelly loam, very gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam, or very gravelly silt loam

Calcium carbonate equivalent—15 to 35 percent

Sodium adsorption ratio—5 to 10

2Bk horizon (where present):

Texture—gravelly loam, extremely gravelly sand, or extremely gravelly loamy coarse sand

Soen Series*Taxonomic classification:* Fine, smectitic, frigid Calcic Argixerolls*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Slow*Position on landscape:* Mountains and fan terraces*Parent material:* Kind—alluvium; source—mixed*Slope range:* 0 to 40 percent*Elevation:* 5,500 to 7,600 feet*Average annual precipitation:* 10 to 16 inches*Average annual air temperature:* 38 to 42 degrees F*Frost-free period:* 40 to 90 days**Typical Pedon Location***Map unit in which located:* Dawtonia-Kehar-Soen complex, 10 to 30 percent slopes*Location in survey area:* Custer County, Idaho; about 14 miles south of Challis; about 1,500 feet south and 200 feet west of the northeast corner of sec. 10, T. 11 N., R. 19 E.; lat. 44°18'03" N., long. 114°11'32" W.**Typical Pedon**

A—0 to 2 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate very fine and fine subangular blocky structure parting to weak very fine granular; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine tubular and irregular pores; 15 percent gravel; neutral (pH 6.8); clear smooth boundary.

AB—2 to 7 inches; brown (10YR 5/3) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; common very fine and fine tubular and irregular pores; 15 percent gravel; neutral (pH 7.0); clear wavy boundary.

Bt1—7 to 12 inches; brown (10YR 5/3) clay loam, dark brown (10YR 3/3) moist; moderate fine and medium prismatic structure; slightly hard, friable, very sticky and moderately plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores; many distinct clay films on faces of peds and in pores; neutral (pH 7.2); gradual wavy boundary.

Bt2—12 to 20 inches; pale brown (10YR 6/3) clay loam, light brownish gray (2.5Y 6/2) moist; moderate medium prismatic structure; hard, firm, very sticky and

moderately plastic; common very fine and fine and few medium roots; many very fine and fine tubular pores; common faint and few distinct clay films on faces of peds and in pores; neutral (pH 7.2); gradual wavy boundary.

2Btkq—20 to 36 inches; very pale brown (10YR 7/3) gravelly clay loam, light brownish gray (2.5Y 6/2) moist; strong fine and medium prismatic structure; slightly hard, firm, very sticky and very plastic; common very fine and few fine and medium roots; few very fine and fine tubular pores and common medium irregular pores; many distinct clay films on faces of peds; 15 percent gravel and 10 percent cobbles; lime and silica coatings 1 to 2 millimeters thick on underside of rock fragments; violently effervescent on outside of prisms and strongly effervescent on inside; moderately alkaline (pH 8.0); gradual wavy boundary.

2Bkq—36 to 60 inches; light gray (10YR 7/2) gravelly clay loam, light olive gray (5Y 6/2) moist; massive; slightly hard, friable, moderately sticky and moderately plastic; common very fine dead roots; common very fine and fine tubular pores and common medium irregular pores; 25 percent gravel and 5 percent cobbles; lime and silica coatings 1 to 2 millimeters thick on underside of rock fragments; soft secondary lime in pores; violently effervescent; moderately alkaline (pH 7.9).

Range in Characteristics

Profile:

Average annual soil temperature—41 to 44 degrees F

Thickness of mollic epipedon—7 to 16 inches

Depth to calcic horizon—14 to 30 inches

Particle-size control section:

Clay content—35 to 50 percent

A horizon:

Value—4 or 5 dry

Chroma—2 or 3 dry or moist

Reaction—neutral or slightly alkaline

Texture—loam or gravelly loam

Bt horizon:

Hue—10YR or 2.5Y

Value—4 to 7 dry, 3 to 6 moist

Chroma—3 or 4 dry, 2 to 4 moist

Texture—clay loam, silty clay loam, or clay

Reaction—neutral to moderately alkaline

2Btkq and 2Bkq horizons:

Hue—10YR, 2.5Y, or 5Y

Value—6 or 7 dry, 5 or 6 moist

Chroma—2 to 4 dry or moist

Texture—gravelly clay loam or cobbly clay loam

Rock fragment content—15 to 25 percent

Reaction—slightly alkaline or moderately alkaline

Sparmo Series

Taxonomic classification: Coarse-loamy, mixed, superactive, frigid Xeric Haplocalcids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Fan terraces and stream terraces

Parent material: Kind—alluvium; source—mixed
Slope range: 1 to 12 percent
Elevation: 5,600 to 6,800 feet
Average annual precipitation: 8 to 12 inches
Average annual air temperature: 40 to 43 degrees F
Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Sparmo-Zer complex, 1 to 5 percent slopes
Location in survey area: Custer County, Idaho; about 5 miles southeast of Mackay; about 2,200 feet south and 1,500 feet west of the northeast corner of sec. 18, T. 6 N., R. 25 E.; lat. 43°50'28" N., long. 113°31'54" W.

Typical Pedon

- A—0 to 3 inches; grayish brown (10YR 5/2) loam, very dark grayish brown (10YR 3/2) moist; weak medium platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine irregular pores; 10 percent gravel; slightly effervescent; moderately alkaline (pH 8.0); clear smooth boundary.
- Bw—3 to 7 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine and few coarse roots; common very fine and fine tubular pores; 15 percent gravel; slightly effervescent; moderately alkaline (pH 8.1); clear wavy boundary.
- Bk1—7 to 19 inches; very pale brown (10YR 8/3) gravelly loam, pale brown (10YR 6/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; common very fine tubular pores; 20 percent gravel; lime coatings less than 1 millimeter thick on underside of some gravel; violently effervescent; moderately alkaline (pH 8.4); clear wavy boundary.
- Bk2—19 to 38 inches; very pale brown (10YR 8/3) gravelly loam, pale brown (10YR 6/3) moist; moderate coarse subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine tubular pores; 20 percent gravel; lime coatings less than 1 millimeter thick on underside and some sides of gravel; violently effervescent; moderately alkaline (pH 8.4); clear wavy boundary.
- 2Bk3—38 to 60 inches; very pale brown (10YR 7/3) very gravelly sandy loam, yellowish brown (10YR 5/4) moist; weak moderate subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; common very fine roots; common very fine tubular pores; 45 percent gravel and 10 percent cobbles; lime coatings less than 1 millimeter thick on underside and some sides of rock fragments; strongly effervescent; moderately alkaline (pH 8.1).

Range in Characteristics

Profile:
 Average annual soil temperature—42 to 45 degrees F
 Depth to calcic horizon—2 to 10 inches

Particle-size control section:
 Clay content (average)—12 to 16 percent
 Rock fragment content—5 to 25 percent

A horizon:
 Value—5 or 6 dry, 3 or 4 moist
 Chroma—2 to 4 dry or moist
 Texture—loam or silt loam

Bw horizon:

Value—4 to 6 dry or moist

Chroma—2 or 3 dry or moist

Texture—silt loam, loam, gravelly loam, or gravelly silt loam

Rock fragment content—5 to 15 percent

Bk horizon:

Value—6 to 8 dry, 5 to 7 moist

Chroma—3 or 4 dry or moist

Texture—loam, silt loam, or gravelly loam

Rock fragment content—5 to 25 percent

Reaction—moderately alkaline or strongly alkaline

Calcium carbonate equivalent—15 to 40 percent

2Bk horizon:

Value—6 to 8 dry, 5 to 7 moist

Texture—very gravelly sandy loam or very gravelly loam

Chroma—3 or 4 dry or moist

Rock fragment content—40 to 60 percent

Reaction—moderately alkaline or strongly alkaline

Calcium carbonate equivalent—10 to 30 percent

Sprabat Series*Taxonomic classification:* Coarse-loamy, mixed, superactive, frigid Typic Haplocalcids*Depth class:* Very deep*Drainage class:* Well drained*Permeability:* Moderately rapid*Position on landscape:* Fan terraces*Parent material:* Kind—alluvium; source—tuff*Slope range:* 0 to 8 percent*Elevation:* 5,000 to 5,500 feet*Average annual precipitation:* 6 to 8 inches*Average annual air temperature:* 38 to 41 degrees F*Frost-free period:* 60 to 90 days**Typical Pedon Location***Map unit in which located:* Sprabat-Snowslide complex, 1 to 8 percent slopes*Location in survey area:* Custer County, Idaho; about 1 mile southeast of Challis Hot Springs; about 2,600 feet south and 1,300 feet west of the northeast corner of sec. 25, T. 14 N., R. 19 E.**Typical Pedon**

A—0 to 5 inches; brown (10YR 5/3) gravelly sandy loam, dark brown (10YR 4/3) moist; weak thick platy structure parting to weak fine subangular blocky; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 15 percent gravel; slightly effervescent; moderately alkaline (pH 8.2); abrupt smooth boundary.

Bw—5 to 7 inches; light yellowish brown (10YR 6/4) sandy loam, dark brown (10YR 4/3) moist; weak medium and coarse subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine irregular pores; 10 percent fine gravel; strongly effervescent; moderately alkaline (pH 8.3); clear smooth boundary.

Bk1—7 to 14 inches; light yellowish brown (10YR 6/4) gravelly sandy loam, brown

(10YR 5/3) moist; weak coarse subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine irregular pores; 25 percent fine gravel; lime coatings 1 millimeter thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.4); clear smooth boundary.

Bk2—14 to 29 inches; light yellowish brown (10YR 6/4) gravelly sandy loam, yellowish brown (10YR 5/4) moist; weak fine and medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine irregular pores; 25 percent fine gravel; lime coatings 1 millimeter thick on underside of rock fragments; violently effervescent; strongly alkaline (pH 8.9); clear wavy boundary.

Bk3—29 to 41 inches; pale brown (10YR 6/3) gravelly sandy loam, brown (10YR 4/3) moist; weak fine and medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine and fine roots; many fine and medium irregular pores; 30 percent fine gravel; lime coatings 1 to 2 millimeters thick on sides and underside of rock fragments; strongly effervescent; moderately alkaline (pH 8.2); clear wavy boundary.

Bk4—41 to 53 inches; yellowish brown (10YR 5/4) gravelly loamy coarse sand, brown (10YR 4/3) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; many very fine, fine, and medium irregular pores; 30 percent fine gravel; lime coatings 1 millimeter thick on all sides of rock fragments; strongly effervescent; moderately alkaline (pH 8.4); clear wavy boundary.

Bk5—53 to 60 inches; light yellowish brown (10YR 6/4) gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; weak fine and medium subangular blocky structure; soft, very friable, slightly sticky and nonplastic; many very fine and fine irregular pores; 25 percent fine gravel; lime coatings 1 millimeter thick on all sides of rock fragments; slightly effervescent; strongly alkaline (pH 8.6).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Depth to calcic horizon—4 to 8 inches

Particle-size control section:

Clay content—8 to 15 percent

Rock fragment content—20 to 30 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist

Bk horizon:

Value—5 to 7 dry

Texture—gravelly sandy loam or gravelly loamy coarse sand

Reaction—moderately alkaline or strongly alkaline

Calcium carbonate equivalent—5 to 15 percent

Struggle Series

Taxonomic classification: Sandy-skeletal, mixed Xeric Eutrocryepts

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Position on landscape: Moraines

Parent material: Kind—glacial till; source—granite

Slope range: 5 to 35 percent

Elevation: 6,600 to 8,000 feet
Average annual precipitation: 20 to 25 inches
Average annual air temperature: 34 to 38 degrees F
Frost-free period: 5 to 30 days

Typical Pedon Description

Map unit in which located: Struggle complex, 5 to 35 percent slopes
Location in survey area: Blaine County, Idaho; about 1.5 miles northeast of Alturas Lake; about 2,100 feet south and 1,600 feet west of the northeast corner of sec. 16, T. 7 N., R. 14 E.

Typical Pedon

- Oi—1.5 inches to 1 inch; slightly decomposed needles, twigs, and cones.
 Oe—1 inch to 0; moderately decomposed needles, twigs, and cones.
 A—0 to 2 inches; dark grayish brown (10YR 4/2) gravelly coarse sandy loam, very dark brown (10YR 2/2) moist; weak fine subangular blocky structure parting to weak fine granular; soft, very friable, nonsticky and nonplastic; many fine and medium and common coarse roots; many very fine and fine irregular pores; 25 percent gravel, of which more than 50 percent is fine gravel; moderately acid (pH 5.6); clear smooth boundary.
 AB—2 to 4 inches; brown (10YR 5/3) gravelly coarse sandy loam, dark brown (10YR 3/3) moist; weak medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; many fine and medium and common coarse roots; many very fine and fine and common medium irregular pores; 25 percent gravel, of which more than 50 percent is fine gravel; moderately acid (pH 5.6); clear wavy boundary.
 Bw1—4 to 11 inches; yellowish brown (10YR 5/4) very gravelly coarse sandy loam, dark brown (10YR 4/3) moist; weak fine and medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; common fine, medium, and coarse roots; common very fine and fine irregular pores; 40 percent gravel, of which more than 50 percent is fine gravel, and 10 percent cobbles; moderately acid (pH 6.0); gradual wavy boundary.
 Bw2—11 to 18 inches; very pale brown (10YR 7/3) and light yellowish brown (10YR 6/4) very gravelly coarse sandy loam, pale brown (10YR 6/3) and yellowish brown (10YR 5/4) moist; weak fine and medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; few very fine and fine and common medium and coarse roots; common fine and medium irregular pores; 40 percent gravel, of which more than 50 percent is fine gravel, and 15 percent cobbles; slightly acid (pH 6.2); gradual wavy boundary.
 BC—18 to 27 inches; very pale brown (10YR 7/3) extremely gravelly loamy coarse sand, yellowish brown (10YR 5/4) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and fine and few medium and coarse roots; common medium and coarse irregular pores; 50 percent gravel, of which 50 percent is fine gravel, and 25 percent cobbles; slightly acid (pH 6.4); gradual wavy boundary.
 C1—27 to 38 inches; very pale brown (10YR 7/3) extremely gravelly loamy coarse sand, yellowish brown (10YR 5/4) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; common medium and coarse irregular pores; 50 percent gravel, of which 50 percent is fine gravel, 20 percent cobbles, and 5 percent stones; 5 percent of rock fragments are grus; slightly acid (pH 6.4); gradual wavy boundary.
 C2—38 to 60 inches; light gray (10YR 7/2) extremely gravelly coarse sand, pale brown (10YR 6/3) moist; single grain; loose, nonsticky and nonplastic; common medium and coarse irregular pores; 45 percent gravel, of which 50 percent is fine gravel, 10 percent cobbles, 10 percent stones, and 5 percent boulders; 5 percent grus in pockets; slightly acid (pH 6.4).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 39 degrees F
 Average summer soil temperature—44 to 47 degrees F
 Depth to sand and gravel (BC horizon)—10 to 20 inches

Particle-size control section:

Clay content—2 to 10 percent
 Rock fragment content—50 to 90 percent (at least 5 percent stones)

A horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 to 4 dry, 2 or 3 moist
 Reaction—moderately acid or strongly acid
 Texture—gravelly coarse sandy loam or very stony coarse sandy loam

Bw horizon:

Hue—7.5YR or 10YR
 Value—5 to 7 dry, 3 to 6 moist
 Chroma—3 or 4 dry or moist
 Texture—gravelly coarse sandy loam or very gravelly coarse sandy loam
 Rock fragment content—15 to 55 percent
 Reaction—slightly acid or moderately acid

BC horizon:

Value—6 or 7 dry, 4 to 6 moist
 Chroma—3 or 4 dry or moist
 Rock fragment content—35 to 75 percent
 Reaction—slightly acid or moderately acid

C horizon:

Value—5 or 6 moist
 Chroma—2 or 3 dry, 3 or 4 moist
 Texture—extremely cobbly coarse sand, extremely gravelly loamy coarse sand,
 extremely gravelly coarse sand, or extremely stony coarse sand
 Rock fragment content—60 to 90 percent
 Cobble content—10 to 30 percent
 Stone content—0 to 15 percent
 Reaction—slightly acid or moderately acid

Surrett Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Typic Duricryolls

Depth class: Moderately deep to a duripan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—limestone and quartzite

Slope range: 2 to 10 percent

Elevation: 6,400 to 7,300 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Surrett gravelly loam, 2 to 8 percent slopes

Location in survey area: Lemhi County, Idaho; about 11 miles southeast of Leadore; about 2,500 feet west and 2,500 feet south of the northeast corner of sec. 36, T. 15 N., R. 27 E.; lat. 44°35'15" N., long. 113°10'54" W.

Typical Pedon

- A—0 to 4 inches; dark brown (10YR 4/3) gravelly loam, very dark grayish brown (10YR 3/2) moist; weak very fine and fine subangular blocky structure parting to moderate very fine and fine granular; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores and common very fine and fine tubular pores; 20 percent gravel; neutral (pH 6.8); clear wavy boundary.
- Bw—4 to 8 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; common very fine and fine irregular and tubular pores; 25 percent gravel; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; slightly effervescent; neutral (pH 7.3); clear wavy boundary.
- Bkq1—8 to 12 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine and fine irregular and tubular pores; 35 percent gravel; silica and lime coatings less than 1 millimeter to 2 millimeters thick on underside and sides of rock fragments; strongly effervescent; slightly alkaline (pH 7.6); clear wavy boundary.
- Bkq2—12 to 19 inches; light gray (10YR 7/2) very gravelly loam, brown (10YR 5/3) moist; weak fine subangular blocky structure; slightly hard, very friable, nonsticky and slightly plastic; few very fine and fine roots; few very fine and fine irregular pores and common very fine and fine tubular pores; 45 percent gravel; silica and lime coatings 1 to 4 millimeters thick on underside and sides of rock fragments; violently effervescent; slightly alkaline (pH 7.7); clear wavy boundary.
- Bkq3—19 to 27 inches; light gray (10YR 7/2) very gravelly sandy loam, pale brown (10YR 6/3) moist; weak fine subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; few very fine and fine roots; few very fine and fine irregular pores and common very fine and fine tubular pores; 50 percent gravel; silica and lime coatings 1 to 4 millimeters thick on underside and sides of rock fragments; lime and silica pendants 2 to 8 millimeters thick on underside of rock fragments in discontinuous layers and pockets; violently effervescent; moderately alkaline (pH 7.9); abrupt wavy boundary.
- 2Bkqm—27 to 36 inches; light gray (10YR 7/2) weakly cemented duripan, brown (10YR 5/3) moist; massive; continuous lime- and silica-cemented cap about 1 millimeter thick at a depth of 27 inches; material below cap is 50 percent very hard, very firm, and brittle and 50 percent hard and firm; few very fine roots; common very fine and fine tubular pores; 65 percent gravel and 2 percent cobbles; silica and lime coatings 1 to 4 millimeters thick on underside and sides of rock fragments; lime and silica pendants 2 to 8 millimeters thick on underside and sides of rock fragments; violently effervescent; moderately alkaline (pH 8.2); gradual wavy boundary.
- 2Bkq1—36 to 52 inches; pale brown (10YR 6/3) extremely gravelly sandy loam, brown (10YR 5/3) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common very fine and few fine tubular pores and few very fine and fine irregular pores; 60 percent gravel and 1 percent cobbles; silica and lime coatings less than 1 millimeter to 2 millimeters thick on underside and sides of rock fragments; violently effervescent; moderately alkaline (pH 8.2); gradual wavy boundary.
- 2Bkq2—52 to 60 inches; multicolored extremely gravelly loamy sand; single grain;

loose, nonsticky and nonplastic; common very fine and fine irregular pores; 60 percent gravel and 5 percent cobbles; silica and lime coatings less than 1 millimeter to 2 millimeters thick on underside and sides of rock fragments; violently effervescent; strongly alkaline (pH 8.6).

Range in Characteristics

Profile:

Average annual soil temperature—38 to 40 degrees F
 Average summer soil temperature—55 to 57 degrees F
 Thickness of mollic epipedon—8 to 14 inches
 Depth to duripan—21 to 35 inches
 Depth to calcic horizon—8 to 14 inches

Particle-size control section:

Clay content—12 to 20 percent
 Rock fragment content—40 to 80 percent

A horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist

Bkq horizon:

Value—6 to 8 dry, 3 to 6 moist
 Chroma—2 to 4 dry or moist
 Texture—very gravelly loam or very gravelly sandy loam
 Rock fragment content—35 to 60 percent
 Calcium carbonate equivalent—5 to 20 percent

2Bkqm horizon:

Value—7 or 8 dry, 5 or 6 moist
 Chroma—2 or 3 dry or moist
 Rock fragment content—55 to 80 percent

2Bkq horizon:

Texture—extremely gravelly sandy loam or extremely gravelly loamy sand
 Rock fragment content—60 to 80 percent
 Calcium carbonate equivalent—15 to 20 percent

Swahlen Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Aridic Haploxerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 8 percent

Elevation: 4,000 to 5,600 feet

Average annual precipitation: 8 to 12 inches

Average annual air temperature: 42 to 44 degrees F

Frost-free period: 70 to 90 days

Typical Pedon Location

Map unit in which located: Swahlen-Packham complex, 2 to 8 percent slopes

Location in survey area: Lemhi County, Idaho; about 9 miles east of Salmon; about

1,500 feet east and 1,000 feet south of the northwest corner of sec. 2, T. 21 N., R. 23 E.; lat. 45°11'05" N., long. 113°42'19" W.

Typical Pedon

- A1—0 to 2 inches; dark brown (10YR 4/3) stony loam, very dark brown (10YR 2/2) moist; strong medium granular structure; soft, very friable, nonsticky and nonplastic; few very fine and fine and common medium roots; common very fine irregular pores; 20 percent gravel and 10 percent stones; neutral (pH 7.2); clear smooth boundary.
- A2—2 to 8 inches; dark brown (10YR 4/3) very gravelly loam, very dark brown (10YR 2/2) moist; strong fine and medium subangular blocky structure; slightly hard, friable, nonsticky and slightly plastic; many very fine and fine and few medium roots; many very fine irregular pores; 35 percent gravel; neutral (pH 7.2); clear smooth boundary.
- AB—8 to 16 inches; brown (10YR 4/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate medium subangular blocky structure; slightly hard, friable, nonsticky and slightly plastic; few medium and many very fine and fine roots; many very fine irregular pores; 30 percent gravel and 5 percent cobbles; neutral (pH 7.2); gradual wavy boundary.
- Bw—16 to 27 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine irregular pores; 50 percent gravel and 5 percent cobbles; neutral (pH 7.2); gradual wavy boundary.
- 2C1—27 to 49 inches; light brownish gray (10YR 6/2) extremely gravelly coarse sandy loam, yellowish brown (10YR 5/4) moist; massive; soft, friable, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine and common medium irregular pores; 60 percent gravel and 10 percent cobbles; neutral (pH 7.2); gradual wavy boundary.
- 2C2—49 to 60 inches; light yellowish brown (10YR 6/4) extremely gravelly coarse sandy loam, olive brown (2.5Y 4/4) moist; massive; soft, friable, nonsticky and nonplastic; many very fine and fine and common medium irregular pores; 50 percent gravel and 20 percent cobbles; neutral (pH 7.2).

Range in Characteristics

Profile:

Average annual soil temperature—43 to 46 degrees F

Thickness of mollic epipedon—12 to 18 inches

Particle-size control section:

Clay content (average)—18 to 25 percent

Rock fragment content—55 to 80 percent

A horizon:

Value—3 or 4 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Reaction—neutral or slightly alkaline

AB horizon:

Value—3 to 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Texture—very gravelly loam or extremely gravelly loam

Reaction—neutral or slightly alkaline

Bw horizon:

Value—4 or 5 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist
 Texture—very gravelly loam or extremely gravelly loam
 Reaction—neutral or slightly alkaline

2C horizon:

Hue—10YR or 2.5Y
 Value—5 or 6 dry, 4 or 5 moist
 Chroma—2 to 4 dry or moist
 Texture—extremely gravelly coarse sandy loam, extremely cobbly coarse sandy loam,
 or extremely gravelly sandy loam

Thosand Series

Taxonomic classification: Fine-loamy, mixed, superactive, calcareous Calcic
 Cryaquolls

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Flood plains and stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 4,800 to 6,400 feet

Average annual precipitation: 8 to 14 inches

Average annual air temperature: 36 to 42 degrees F

Frost-free period: 20 to 75 days

Typical Pedon Location

Map unit in which located: Bigrant-Thosand-Dickeypeak complex, 0 to 4 percent slopes

Location in survey area: Custer County, Idaho; about 19 miles northwest of Mackay; about 800 feet south and 2,700 feet east of the northwest corner of sec. 20, T. 9 N., R. 22 E.; lat. 44°06'02" N., long. 113°52'40" W.

Typical Pedon

Oi—5 inches to 0; slightly decomposed organic material; strongly effervescent.

Akg—0 to 5 inches; light gray (5Y 7/1) silt loam, gray (5Y 5/1 and 6/1) moist; moderate medium subangular blocky structure; hard, friable, sticky and plastic; many very fine, fine, medium, and coarse roots; many very fine and fine tubular pores; strongly effervescent (65 percent calcium carbonate equivalent); slightly alkaline (pH 7.6); gradual smooth boundary.

Bkg1—5 to 12 inches; gray (5Y 6/1) silt loam, gray (5Y 5/1) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine, fine, medium, and coarse roots; many very fine and fine irregular and tubular pores; strongly effervescent (40 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.

Bkg2—12 to 22 inches; pale olive (5Y 6/3) silt loam, dark greenish gray (5GY 4/1) moist; common medium and coarse prominent masses of iron depletion, dark yellowish brown (10YR 4/6) moist, and common medium and coarse distinct masses of iron depletion, black (5Y 2.5/2) moist; massive; hard, friable, sticky and plastic; common medium roots; many very fine and fine irregular and tubular pores; 10 percent gravel; slightly effervescent (7 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.

Bkg3—22 to 39 inches; light olive gray (5Y 6/2) gravelly silt loam, greenish gray (5GY 5/1) moist; many medium and coarse prominent masses of iron accumulation,

dark yellowish brown (10YR 4/6) moist, and common medium and coarse distinct masses of iron depletion, dark bluish gray (5B 4/1) moist; massive; hard, friable, sticky and plastic; few coarse roots; many very fine and fine tubular and irregular pores; 30 percent gravel; slightly effervescent (12 percent calcium carbonate equivalent); slightly alkaline (pH 7.5) clear wavy boundary.

Bkg4—39 to 44 inches; pale olive (5Y 6/3) very gravelly silt loam, olive gray (5Y 4/2) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common medium roots; many very fine and fine irregular and tubular pores; 55 percent gravel; slightly effervescent (7 percent calcium carbonate equivalent); slightly alkaline (pH 7.6); clear wavy boundary.

2Cg—44 to 60 inches; gray (5Y 6/1) extremely gravelly loamy sand, dark gray (5Y 4/1) moist; massive; slightly hard, friable, nonsticky and nonplastic; common very fine, fine, and medium tubular and irregular pores; 65 percent gravel; slightly effervescent (9 percent calcium carbonate equivalent); slightly alkaline (pH 7.8).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 42 degrees F

Average summer soil temperature—40 to 43 degrees F

Thickness of organic horizon—2 to 7 inches

Thickness of mollic epipedon—7 to 15 inches

Calcium carbonate equivalent of mollic epipedon—40 to 55 percent

Depth to high water table—12 inches above the surface to a depth of 12 inches below the surface in November through August

Time of year flooding occurs—April through July

Depth to sand and gravel (2Cg horizon)—40 to 60 inches

Particle-size control section:

Clay content—18 to 27 percent

Rock fragment content—0 to 30 percent

Akg horizon:

Hue—2.5Y, 5Y, or 10YR

Value—6 or 7 dry, 4 to 6 moist

Chroma—1 or 2 dry or moist

Bkg1, Bkg2, and Bkg3 horizons:

Hue—2.5Y, 5Y, 5GY, or 10YR

Value—6 or 7 dry, 4 to 6 moist

Chroma—1 to 3 dry or moist

Texture—silt loam, loam, fine sandy loam, or gravelly silt loam

Rock fragment content—0 to 30 percent

Reaction—slightly alkaline or moderately alkaline

Bkg4 horizon:

Hue—2.5Y or 5Y

Value—5 or 6 dry, 4 or 5 moist

Chroma—1 to 3 dry or moist

Rock fragment content—25 to 55 percent

Reaction—slightly alkaline or moderately alkaline

Texture—very gravelly silt loam, gravelly very fine sandy loam, or very gravelly sandy loam

2Cg horizon:

Chroma—1 or 2 dry

Rock fragment content—60 to 80 percent

Reaction—slightly alkaline or moderately alkaline

Threedot Series

Taxonomic classification: Clayey-skeletal, smectitic Oxyaquic Argicryolls

Depth class: Very deep

Drainage class: Moderately well drained

Permeability: Very slow

Position on landscape: Moraines and mountains

Parent material: Kind—glacial till; source—quartzite

Slope range: 5 to 50 percent

Elevation: 6,600 to 8,500 feet

Average annual precipitation: 14 to 22 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free period: 10 to 60 days

Typical Pedon Location

Map unit in which located: Threedot loam, 10 to 30 percent slopes

Location in survey area: Lemhi County, Idaho; about 9 miles west of Leadore; about 1,200 feet west and 1,600 feet north of the southeast corner of sec. 36, T. 16 N., R. 24 E.; lat. 44°40'14" N., long. 113°32'37" W.

Typical Pedon

- A1—0 to 4 inches; very dark grayish brown (10YR 3/2) loam, black (10YR 2/1) moist; weak very fine and fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and few fine, medium, and coarse roots; many very fine irregular pores; 5 percent gravel; slightly acid (pH 6.2); clear wavy boundary.
- A2—4 to 8 inches; dark brown (10YR 3/3) loam, black (10YR 2/1) moist; weak very fine, fine, and medium subangular blocky structure parting to weak very fine and fine granular; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine, medium, and coarse roots; common very fine irregular and tubular pores; 5 percent gravel; slightly acid (pH 6.2); clear wavy boundary.
- AB—8 to 11 inches; brown (10YR 4/3) clay loam, very dark grayish brown (10YR 3/2) moist; weak very fine, fine, and medium subangular blocky structure; slightly hard, very friable, moderately sticky and slightly plastic; common very fine and few fine, medium, and coarse roots; common very fine irregular pores and few very fine tubular pores; common faint clay films on faces of peds and in pores; 10 percent gravel; slightly acid (pH 6.5); clear wavy boundary.
- B/E—11 to 19 inches; gravelly clay loam; E part is dark yellowish brown (10YR 4/4), brown (10YR 4/3) moist, and B part is yellowish brown (10YR 5/4), dark yellowish brown (10YR 4/4) moist; moderate very fine and fine subangular blocky structure; hard, friable, moderately sticky and moderately plastic; common very fine and few fine and medium roots; many very fine tubular pores; common faint clay films on faces of peds and in pores; 30 percent gravel; slightly acid (pH 6.4); clear wavy boundary.
- Bt1—19 to 31 inches; strong brown (7.5YR 5/5) very gravelly clay, brown (7.5YR 4/4) moist; strong very fine, fine, and medium subangular blocky structure; very hard, very firm, moderately sticky and very plastic; common very fine roots; common very fine tubular pores; many distinct clay films on faces of peds and in pores; 40 percent gravel and 10 percent cobbles; slightly acid (pH 6.2); gradual wavy boundary.
- Bt2—31 to 51 inches; strong brown (7.5YR 5/5) very gravelly clay, brown (7.5YR 4/4) moist; strong very fine, fine, medium, and coarse subangular blocky structure; very hard, firm, moderately sticky and very plastic; few very fine roots; common

very fine tubular pores; many distinct clay films on faces of peds and in pores; 40 percent gravel and 15 percent cobbles; neutral (pH 6.7); clear wavy boundary. 2C—51 to 60 inches; brownish yellow (10YR 6/6) very gravelly loam, yellowish brown (10YR 5/8) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; common very fine tubular pores; 30 percent gravel and 10 percent cobbles; slightly effervescent; neutral (pH 7.2).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F
 Average summer soil temperature—48 to 53 degrees F
 Thickness of mollic epipedon—10 to 14 inches
 Depth to the argillic horizon—18 to 30 inches
 Depth to perched water table—12 to 24 inches in April through June

Particle-size control section:

Clay content—40 to 60 percent
 Rock fragment content—35 to 50 percent

A horizon:

Chroma—2 or 3 dry, 1 or 2 moist
 Texture—gravelly loam, loam, or stony loam

AB horizon:

Value—3 to 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry or moist
 Texture—gravelly loam, clay loam, or very gravelly clay loam

B/E horizon:

Value—4 to 7 dry, 4 or 5 moist
 Chroma—3 or 4 dry or moist
 Texture—gravelly clay loam, very gravelly clay loam, or very cobbly clay loam

Bt horizon:

Hue—7.5YR or 10YR
 Value—4 to 6 dry, 3 to 5 moist
 Chroma—3 to 6 dry or moist
 Texture—very gravelly clay or very cobbly clay

2C horizon (where present):

Hue—7.5YR or 10YR
 Value—6 or 7 dry, 5 or 6 moist
 Chroma—6 to 8 dry or moist

Tohobit Series

Taxonomic classification: Sandy-skeletal, mixed, frigid Aeric Calciaquolls

Depth class: Very deep

Drainage class: Somewhat poorly drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 3 percent

Elevation: 3,700 to 5,000 feet

Average annual precipitation: 8 to 14 inches

Average annual air temperature: 38 to 47 degrees F

Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Burstead-Tohobit complex, 0 to 3 percent slopes

Location in survey area: Lemhi County, Idaho; about 1 mile north of Ellis; 100 feet south and 100 feet west of the northeast corner of sec. 24, T. 16 N., R. 20 E.

Typical Pedon

- Ak1—0 to 3 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine and few fine, medium, coarse, and very coarse roots; many very fine and fine irregular pores; strongly effervescent (17 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); abrupt wavy boundary.
- Ak2—3 to 9 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, nonsticky and slightly plastic; many very fine and few fine, medium, coarse, and very coarse roots; many very fine and fine irregular pores; strongly effervescent (17 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear wavy boundary.
- Bw1—9 to 16 inches; grayish brown (10YR 5/2) silt loam, dark brown (10YR 4/3) moist; weak medium and coarse subangular blocky structure; slightly hard, friable, nonsticky and slightly plastic; many very fine and few fine, medium, coarse, and very coarse roots; many very fine and fine irregular pores; slightly alkaline (pH 7.4); clear wavy boundary.
- Bw2—16 to 21 inches; brown (10YR 5/3) fine sandy loam, dark brown (10YR 4/3) moist; few fine faint masses of iron accumulation, yellowish brown (10YR 5/4) dry; weak medium and coarse subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine and few fine and medium roots; many very fine and fine irregular pores; 10 percent gravel; slightly alkaline (pH 7.4); gradual wavy boundary.
- 2Cg1—21 to 45 inches; multicolored extremely gravelly coarse sand; many fine and medium distinct masses of iron accumulation that are reddish yellow (7.5YR 6/6) when dry and are on rock fragments; single grain; loose, nonsticky and nonplastic; common very fine and few fine and medium roots; many fine and medium irregular pores; 75 percent gravel and 15 percent cobbles; slightly alkaline (pH 7.5); clear wavy boundary.
- 2Cg2—45 to 49 inches; multicolored extremely gravelly coarse sand; many medium and coarse distinct masses of iron accumulation that are strong brown (7.5YR 6/6) when dry and are on rock fragments; single grain; loose, nonsticky and nonplastic; few very fine roots; many fine and medium irregular pores; 60 percent gravel and 10 percent cobbles; slightly alkaline (pH 7.5); clear wavy boundary.
- 2Cg3—49 to 55 inches; multicolored sand; many fine and medium distinct masses of iron accumulation that are reddish yellow (5YR 6/8) when dry; single grain; loose, nonsticky and nonplastic; few very fine roots; many fine irregular pores; 10 percent gravel; slightly alkaline (pH 7.5); clear wavy boundary.
- 2Cg4—55 to 60 inches; light brownish gray (10YR 6/2) loamy fine sand, very dark grayish brown (10YR 3/2) moist; many fine and medium distinct masses of iron accumulation that are strong brown (7.5YR 5/6) when moist; weak medium and coarse subangular blocky structure; soft, very friable, nonsticky and nonplastic; few very fine roots; many fine irregular pores; 10 percent gravel; slightly alkaline (pH 7.5).

Range in Characteristics

Profile:

Average annual soil temperature—45 to 47 degrees F

Thickness of mollic epipedon—8 to 12 inches
 Thickness of calcic horizon, which is at the soil surface—8 to 12 inches
 Depth to sand and gravel (2Cg horizon)—12 to 24 inches
 Depth to high water table—18 to 36 inches in March through October
 Time of year flooding occurs—April through June

Particle-size control section:

Clay content (average)—2 to 10 percent
 Rock fragment content—40 to 80 percent

Ak horizon:

Value—4 or 5 dry, 2 or 3 moist
 Chroma—1 to 3 dry or moist
 Calcium carbonate equivalent—15 to 20 percent
 Reaction—slightly alkaline or moderately alkaline

Bw horizon:

Value—5 or 6 dry, 3 or 4 moist
 Chroma—2 or 3 dry or moist
 Texture—silt loam, fine sandy loam, or gravelly silt loam
 Rock fragment content—0 to 30 percent

2Cg horizon:

Texture—stratified extremely gravelly coarse sand to loamy fine sand
 Rock fragment content—10 to 90 percent

Typic Cryaquepts

Taxonomic classification: Typic Cryaquepts

Depth class: Very deep

Drainage class: Somewhat poorly drained or poorly drained

Permeability: Moderately slow

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—uplifted lacustrine sediment

Slope range: 1 to 3 percent

Elevation: 6,500 to 8,000 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 36 to 40 degrees F

Frost-free period: 30 to 60 days

Representative Pedon Location

Map unit in which located: Typic Cryaquepts, 1 to 3 percent slopes

Location in survey area: Lemhi County, Idaho; about 24 miles southeast of Leadore;
 about 1,100 feet south and 10 feet west of the northeast corner of sec. 20,
 T. 12 N., R. 28 E.

Representative Pedon

A1—0 to 3 inches; light brownish gray (10YR 6/2) silt loam, dark grayish brown (10YR 4/2) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine irregular pores and common very fine and fine tubular pores; violently effervescent; slightly alkaline (pH 7.5); abrupt wavy boundary.

A2—3 to 7 inches; light brownish gray (10YR 6/2) silt loam, brown (10YR 5/3) moist; weak fine and medium subangular blocky structure parting to moderate very fine and fine granular; soft, very friable, sticky and slightly plastic; many very fine and

fine and few medium roots; common very fine irregular pores and many very fine and fine tubular pores; violently effervescent; slightly alkaline (pH 7.7); clear wavy boundary.

- AC—7 to 13 inches; light gray (2.5Y 7/2) silty clay loam, grayish brown (2.5Y 5/2) moist; weak thin platy structure parting to weak fine angular blocky; slightly hard, friable, sticky and plastic; many very fine, common fine, and few medium roots; few very fine irregular pores and common very fine and fine tubular pores; 1 percent gravel; violently effervescent; moderately alkaline (pH 8.4); clear wavy boundary.
- 2C1—13 to 19 inches; light gray (5Y 7/1) very fine sandy loam, gray (5Y 5/1) moist; few fine faint masses of iron accumulation; weak thin platy structure; slightly hard, very friable, nonsticky and slightly plastic; common very fine and fine and few medium roots; common very fine tubular and irregular pores; 2 percent gravel; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 8.4); clear wavy boundary.
- 2C2—19 to 35 inches; light gray (5Y 7/1) very fine sandy loam, gray (5Y 6/1) moist; common fine faint masses of iron accumulation; moderate thin platy structure; slightly hard, firm, slightly sticky and slightly plastic; common very fine and few fine and medium roots; common very fine tubular pores and few fine irregular pores; violently effervescent; moderately alkaline (pH 8.4); gradual wavy boundary.
- 2C3—35 to 60 inches; white (5Y 8/1) silty clay loam, gray (5Y 6/1) moist; common fine faint to prominent masses of iron accumulation, brownish yellow (10YR 6/8) moist; moderate thin or medium platy structure; slightly hard, firm, sticky and plastic; few very fine roots; common very fine tubular pores and few fine irregular pores; pockets of sandy loam in horizon; violently effervescent; moderately alkaline (pH 8.4).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 41 degrees F
 Average summer soil temperature—55 to 57 degrees F
 Depth to redoximorphic accumulations—12 to 19 inches
 Depth to high water table—12 to 30 inches in April through June

Particle-size control section:

Clay content—16 to 38 percent
 Rock fragment content—0 to 35 percent

A1 horizon:

Hue—10YR or 2.5Y
 Value—5 to 7 dry

AC horizon:

Texture—silt loam or silty clay loam

2C horizon:

Hue—10YR, 2.5Y, or 5Y
 Value—6 to 8 dry, 4 to 7 moist
 Chroma—1 to 3 dry or moist
 Texture—very fine sandy loam, gravelly very fine sandy loam, silt loam, or silty clay loam
 Rock fragment content—0 to 35 percent

Ureal Series

Taxonomic classification: Ashy-skeletal, glassy, frigid, shallow Vitritorrandic Haploxerolls

Depth class: Shallow to bedrock
Drainage class: Well drained
Permeability: Moderately rapid
Position on landscape: Hills and mountains
Parent material: Kind—residuum and colluvium; source—tuff
Slope range: 20 to 50 percent
Elevation: 5,200 to 7,000 feet
Average annual precipitation: 11 to 13 inches
Average annual air temperature: 37 to 41 degrees F
Frost-free period: 45 to 90 days

Typical Pedon Location

Map unit in which located: Ureal-Zeebar-Dacont complex, 20 to 50 percent slopes
Location in survey area: Custer County, Idaho; about 9 miles west of Ellis; about 650 feet south and 200 feet west of the northeast corner of sec. 32, T. 16 N., R. 19 E.

Typical Pedon

A1—0 to 7 inches; brown (10YR 5/3) very cobbly sandy loam, very dark grayish brown (10YR 3/2) moist; weak very fine granular structure; slightly hard, very friable, nonsticky and nonplastic; many very fine and common fine roots; many very fine and fine irregular pores; 20 percent gravel and 25 percent cobbles; slightly alkaline (pH 7.6); clear wavy boundary.
 A2—7 to 14 inches; brown (10YR 5/3) extremely gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine roots; many very fine and fine irregular pores; 65 percent gravel and 25 percent cobbles; neutral (pH 7.3); clear wavy boundary.
 Cr—14 to 24 inches; moderately cemented tuff.

Range in Characteristics

Profile:
 Average annual soil temperature—39 to 43 degrees F
 Depth to paralithic contact—10 to 20 inches
 Thickness of mollic epipedon—7 to 14 inches
 Reaction—neutral or slightly alkaline

Particle-size control section:
 Clay content—5 to 15 percent
 Rock fragment content—45 to 90 percent
 Volcanic ash content—30 to 50 percent

Venum Series

Taxonomic classification: Clayey-skeletal, smectitic, frigid Xeric Haplargids

Depth class: Very deep
Drainage class: Well drained
Permeability: Slow
Position on landscape: Mountains, ridges, and hills
Parent material: Kind—colluvium; source—quartzite and other mixed sources
Slope range: 6 to 55 percent
Elevation: 4,500 to 6,500 feet
Average annual precipitation: 8 to 12 inches
Average annual air temperature: 37 to 44 degrees F
Frost-free period: 60 to 90 days

Typical Pedon Location

Map unit in which located: Venum-Rock outcrop complex, 25 to 55 percent slopes

Location in survey area: Custer County, Idaho; about 1.5 miles east of the mouth of the East Fork of the Salmon River; about 1,460 feet north and 275 feet east of the southwest corner of sec. 24, T. 11 N., R. 18 E.; lat. 44°16'04" N., long. 114°17'28" W.

Typical Pedon

- A—0 to 2 inches; pale brown (10YR 6/3) very cobbly loam, dark brown (10YR 3/3) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine irregular pores; 25 percent gravel, 20 percent cobbles, and 1 percent stones; neutral (pH 7.2); clear wavy boundary.
- Bt1—2 to 5 inches; yellowish brown (10YR 5/6) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; slightly hard, friable, very sticky and moderately plastic; many very fine and fine roots; many very fine and fine irregular pores and few fine tubular pores; common distinct clay films on faces of peds and in pores; 30 percent gravel and 10 percent cobbles; neutral (pH 7.0); clear wavy boundary.
- Bt2—5 to 9 inches; yellowish brown (10YR 5/4) very gravelly clay loam, yellowish brown (10YR 5/4) moist; moderate fine angular blocky structure; hard, friable, very sticky and very plastic; common very fine and fine roots; few very fine and fine irregular pores and common fine tubular pores; many distinct clay films on faces of peds and in pores; 30 percent gravel and 15 percent cobbles; slightly alkaline (pH 7.4); clear wavy boundary.
- Btk—9 to 14 inches; yellowish brown (10YR 5/4) very gravelly clay loam, yellowish brown (10YR 5/4) moist; moderate fine angular blocky structure; hard, friable, very sticky and very plastic; common very fine and fine roots; few very fine and fine irregular pores and common fine tubular pores; common distinct clay films on faces of peds and in pores; 35 percent gravel and 15 percent cobbles; lime coatings 1 millimeter thick on underside and some sides of rock fragments; common soft masses of secondary lime; slightly effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.
- Btkq1—14 to 26 inches; yellowish brown (10YR 5/6) very gravelly clay loam, yellowish brown (10YR 5/4) moist; strong fine and medium angular blocky structure; hard, friable, very sticky and very plastic; common very fine and few fine roots; common very fine and fine tubular pores; common faint and few distinct clay films on faces of peds and in pores; no lime coatings on peds with clay films; 30 percent gravel and 20 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; common soft masses of secondary lime; strongly effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.
- Btkq2—26 to 38 inches; light yellowish brown (10YR 6/4) extremely gravelly clay loam, yellowish brown (10YR 5/4) moist; moderate fine and medium angular blocky structure; hard, friable, very sticky and very plastic; common very fine and few fine roots; common very fine and fine tubular pores; few faint clay films on faces of peds and in pores; slightly effervescent in areas of peds with clay films; 35 percent gravel and 25 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside of rock fragments; common soft masses of secondary lime; strongly effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.
- Bk—38 to 60 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, friable, very sticky and moderately plastic; few very fine roots; common very fine and fine irregular pores; 25 percent gravel and 15 percent cobbles; strongly effervescent; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 45 degrees F

Depth to argillic horizon—1 to 4 inches

Depth to secondary carbonates—9 to 20 inches

Particle-size control section:

Clay content—35 to 50 percent

Rock fragment content—40 to 65 percent

A horizon:

Hue—10YR or 7.5YR

Value—5 or 6 dry, 3 or 4 moist

Texture—very cobbly loam or stony loam

Bt, Btk, and Btkq horizons:

Hue—10YR, 7.5YR, or 5Y

Value—4 to 6 dry or moist

Chroma—3 to 6 dry, 3 or 4 moist

Texture—very gravelly clay loam, very gravelly clay, extremely gravelly clay loam, or very cobbly clay

Rock fragment content—35 to 75 percent

Reaction—neutral to moderately alkaline

Bk horizon:

Value—4 to 6 dry or moist

Chroma—4 or 5 dry or moist

Texture—very gravelly loam, extremely gravelly clay loam, very gravelly clay loam, or extremely gravelly loam

Rock fragment content—40 to 85 percent

Reaction—slightly alkaline to strongly alkaline

Whitecloud Series

Taxonomic classification: Sandy-skeletal, carbonatic, frigid Xeric Haplocalcids

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—limestone

Slope range: 2 to 15 percent

Elevation: 5,500 to 7,000 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 37 to 44 degrees F

Frost-free period: 50 to 100 days

Typical Pedon Location

Map unit in which located: Whitecloud-Simeroi complex, 2 to 8 percent slopes

Location in survey area: Custer County, Idaho; about 20 miles southwest of Patterson; about 1,000 feet south and 1,200 feet east of the northwest corner of sec. 8, T. 12 N., R. 23 E.; lat. 44°23'21" N., long. 113°46'03" W.

Typical Pedon

A1—0 to 2 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 5/3) moist; weak very fine granular structure; soft, very friable, nonsticky and slightly plastic;

common very fine and few fine roots; many very fine tubular and irregular pores; 30 percent gravel; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

A2—2 to 6 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 5/3) moist; weak fine granular structure; soft, very friable, nonsticky and slightly plastic; many very fine, common fine, and few medium roots; many very fine irregular and tubular pores; 35 percent gravel and 3 percent cobbles; lime and silica coatings 1 millimeter thick on underside and some sides of rock fragments; strongly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Bkq1—6 to 14 inches; pale brown (10YR 6/3) very gravelly sandy loam, pale brown (10YR 6/3) moist; weak fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine, common fine, and few medium roots; many very fine tubular and irregular pores; 45 percent gravel and 5 percent cobbles; lime and silica coatings 1 to 5 millimeters thick on sides and underside of rock fragments; violently effervescent (55 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear wavy boundary.

Bkq2—14 to 17 inches; very pale brown (10YR 7/3) extremely gravelly sandy loam, brown (10YR 5/3) moist; massive; hard, firm, nonsticky and nonplastic; few very fine and fine roots; common very fine and fine tubular and irregular pores; 55 percent gravel and 5 percent cobbles; very weak discontinuous cementation; lime and silica coatings 1 to 5 millimeters thick on sides and underside of rock fragments; violently effervescent (60 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.

2Bkq3—17 to 35 inches; light brownish gray (10YR 6/2) extremely gravelly loamy coarse sand, gray (10YR 5/1) moist; single grain; loose, nonsticky and nonplastic; common very fine roots; many very fine and common fine irregular pores; 55 percent gravel and 10 percent cobbles; lime and silica coatings 2 to 5 millimeters thick on sides and underside of rock fragments; fine gravel weakly cemented to underside of rock fragments; violently effervescent (more than 65 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.

2Bq—35 to 60 inches; light brownish gray (10YR 6/2) extremely gravelly loamy coarse sand, gray (10YR 5/1) moist; single grain; loose, nonsticky and nonplastic; few very fine roots; many very fine and common fine irregular pores; 65 percent gravel and 10 percent cobbles; weak silica bridging fine gravel to underside of rock fragments; violently effervescent (more than 65 percent calcium carbonate equivalent); moderately alkaline (pH 8.4).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 44 degrees F

Reaction—slightly alkaline to strongly alkaline

Depth to calcic horizon—3 to 17 inches

Depth to sand and gravel (2Bkq horizon)—10 to 20 inches

Particle-size control section:

Rock fragment content—45 to 75 percent

Calcium carbonate equivalent—55 to 80 percent

A horizon:

Value—5 or 6 dry, 3 to 5 moist

Chroma—2 or 3 dry or moist

Texture—gravelly loam or very gravelly loam

Bkq horizon:

Value—4 to 8 dry, 3 to 6 moist

Chroma—2 to 4 dry or moist

Texture—very gravelly loam, very gravelly sandy loam, or extremely gravelly sandy loam

Clay content—7 to 15 percent

2Bkq and 2Bq horizons:

Texture—very gravelly sand, extremely gravelly loamy sand, or extremely gravelly loamy coarse sand

Whiteknob Series*Taxonomic classification:* Sandy-skeletal, mixed, frigid Xeric Haplocalcids*Depth class:* Very deep*Drainage class:* Somewhat excessively drained*Permeability:* Moderate in the upper part and very rapid in the lower part*Position on landscape:* Outwash fans and fan terraces*Parent material:* Kind—alluvium; source—quartzite*Slope range:* 1 to 8 percent*Elevation:* 5,000 to 6,700 feet*Average annual precipitation:* 8 to 11 inches*Average annual air temperature:* 38 to 44 degrees F*Frost-free period:* 65 to 90 days**Typical Pedon Location***Map unit in which located:* Whiteknob gravelly loam, 2 to 8 percent slopes (fig. 13)*Location in survey area:* Lemhi County, Idaho; about 3 miles northwest of Leadore; about 1,900 feet west and 500 feet north of the southeast corner of sec. 24, T. 16 N., R. 26 E.**Typical Pedon**

A—0 to 4 inches; pale brown (10YR 6/3) gravelly loam, dark brown (10YR 3/3) moist; moderate thin and medium platy structure parting to moderate very fine granular; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine tubular pores and many very fine irregular pores; 15 percent gravel; slightly effervescent; slightly alkaline (pH 7.4); clear wavy boundary.

Bw—4 to 7 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; many very fine and fine tubular pores; 30 percent gravel and 1 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent; slightly alkaline (pH 7.6); clear wavy boundary.

Bkq1—7 to 11 inches; pale brown (10YR 6/3) very gravelly sandy loam, brown (10YR 4/3) moist; weak very fine subangular blocky structure parting to weak very fine granular; soft, very friable, nonsticky and nonplastic; common very fine and few fine and medium roots; common very fine and fine tubular pores; 50 percent gravel and 1 percent cobbles; lime and silica coatings 1 to 2 millimeters thick on sides and underside of rock fragments; violently effervescent (25 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear wavy boundary.

Bkq2—11 to 19 inches; light gray (10YR 7/2) extremely gravelly loamy coarse sand, pale brown (10YR 6/3) moist; massive; slightly hard, friable, nonsticky and



Figure 13.—Typical profile of Whiteknob gravelly loam, 2 to 8 percent slopes. This soil formed in alluvium derived from quartzite. Lime and silica coatings on underside of rock fragments between depths of 7 and 60 inches. The numerals on the tape are in feet.

nonplastic; common very fine and few fine and medium roots; common very fine and fine tubular pores; 65 percent gravel and 2 percent cobbles; lime and silica coatings 1 to 3 millimeters thick on underside and some sides of rock fragments; violently effervescent (35 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); gradual wavy boundary.

Bkq3—19 to 37 inches; very pale brown (10YR 7/3) extremely gravelly loamy coarse sand, yellowish brown (10YR 5/4) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine roots; common fine irregular pores; 65 percent gravel and 5 percent cobbles; lime and silica coatings 1 to 5 millimeters thick on underside and some sides of rock fragments; violently effervescent (25 percent calcium carbonate equivalent); moderately alkaline (pH 8.4); gradual wavy boundary.

Bkq4—37 to 60 inches; light yellowish brown (10YR 6/4) extremely gravelly loamy coarse sand, dark brown (10YR 4/3) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine roots; common very fine and fine irregular pores; 65 percent gravel and 10 percent cobbles; lime and silica coatings 1 to 5 millimeters thick on underside and some sides of rock fragments; strongly effervescent (15 percent calcium carbonate equivalent); strongly alkaline (pH 8.6).

Range in Characteristics

Profile:

Average annual soil temperature—41 to 46 degrees F

Depth to calcic horizon—4 to 10 inches

Depth to sand and gravel (Bkq2 horizon)—8 to 20 inches

Particle-size control section:

Rock fragment content—50 to 80 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—2 or 3 dry or moist

Reaction—slightly alkaline or moderately alkaline

Bw and Bkq1 horizons:

Value—3 to 6 moist

Chroma—2 to 4 dry or moist

Texture—gravelly loam, very gravelly loam, very gravelly sandy loam, loam, or extremely gravelly sandy loam

Reaction—slightly alkaline or moderately alkaline

Bkq2, 2Bkq3, and Bkq4 horizons:

Value—4 to 6 moist

Chroma—2 to 4 dry or moist

Texture—very gravelly sand, extremely gravelly sand, or extremely gravelly loamy coarse sand

Reaction—moderately alkaline or strongly alkaline

Calcium carbonate equivalent—15 to 35 percent

Wiggleton Series

Taxonomic classification: Sandy-skeletal, mixed Xeric Haplocryolls

Depth class: Very deep

Drainage class: Somewhat excessively drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Position on landscape: Outwash fans, stream terraces, and fan terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 10 percent

Elevation: 6,200 to 7,500 feet

Average annual precipitation: 13 to 20 inches

Average annual air temperature: 33 to 40 degrees F

Frost-free period: 5 to 60 days

Typical Pedon Location

Map unit in which located: Wiggleton gravelly silt loam, 2 to 10 percent slopes

Location in survey area: Lemhi County, Idaho; about 17 miles southeast of Leadore; about 1,250 feet south and 2,440 feet west of the northeast corner of sec. 21, T. 13 N., R. 27 E.

Typical Pedon

A1—0 to 6 inches; brown (10YR 4/3) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few coarse roots; common very fine and fine irregular and tubular pores; 30 percent gravel; slightly alkaline (pH 7.7); clear wavy boundary.

A2—6 to 12 inches; dark brown (10YR 4/3) very gravelly coarse sandy loam, dark brown (10YR 3/3) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky and nonplastic; many very fine and fine roots; many very fine and fine irregular pores; 40 percent gravel and 2 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of some rock fragments; slightly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

2Bk1—12 to 18 inches; grayish brown (10YR 5/2) extremely gravelly loamy coarse sand, dark brown (10YR 4/3) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine roots; many fine and medium irregular pores; 60 percent gravel and 10 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; slightly effervescent; slightly alkaline (pH 7.8); gradual wavy boundary

2Bk2—18 to 30 inches; pale brown (10YR 6/3) extremely gravelly sand, multicolored moist; single grain; loose, nonsticky and nonplastic; few very fine roots; many fine and medium irregular pores; 60 percent gravel and 10 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent; moderately alkaline (pH 7.9); gradual wavy boundary.

2Bk3—30 to 60 inches; very pale brown (10YR 7/3) extremely gravelly sand, light yellowish brown (10YR 6/4) moist; single grain; loose, nonsticky and nonplastic; few very fine roots; many fine and medium irregular pores; 70 percent gravel and 10 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; upper 1 to 2 inches of horizon is weakly cemented; root mat at upper boundary; strongly effervescent; moderately alkaline (pH 8.3).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 41 degrees F

Average summer soil temperature—53 to 58 degrees F

Thickness of mollic epipedon—10 to 16 inches

Depth to sand and gravel (2Bk horizon)—10 to 18 inches

Particle-size control section:

Rock fragment content—60 to 80 percent

A1 horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Texture—gravelly silt loam, very gravelly sandy loam, or very gravelly loam

2Bk horizon:

Value—4 to 6 moist

Texture—extremely gravelly loamy coarse sand or extremely gravelly sand

Wimpey Series*Taxonomic classification:* Clayey over sandy or sandy-skeletal, smectitic over mixed, calcareous, frigid Cumulic Endoaquolls*Depth class:* Very deep*Drainage class:* Poorly drained*Permeability:* Slow in the upper part and very rapid in the lower part*Position on landscape:* Flood plains*Parent material:* Kind—alluvium; source—mixed*Slope range:* 0 to 2 percent*Elevation:* 3,700 to 5,200 feet*Average annual precipitation:* 9 to 12 inches*Average annual air temperature:* 42 to 44 degrees F*Frost-free period:* 70 to 90 days**Typical Pedon Location***Map unit in which located:* Wimpey-Zeph-Ajax complex, 0 to 2 percent slopes*Location in survey area:* Lemhi County, Idaho; about 7.5 miles southeast of Baker; about 1,590 feet north and 530 feet east of the southwest corner of sec. 5, T. 19 N., R. 24 E.; lat. 45°56'45" N., long. 113°36'02" W.**Typical Pedon**

Oe—1 inch to 0; moderately decomposed roots, stems, and leaves.

Ak1—0 to 3 inches; dark gray (10YR 4/1) silty clay, very dark gray (10YR 3/1) moist; few fine prominent masses of iron accumulation, dark yellowish brown (10YR 3/6) moist; strong medium granular structure; very hard, friable, very sticky and very plastic; many very fine, fine, and medium roots; many fine and very fine tubular pores; slightly effervescent; few very fine soft masses of segregated lime; moderately alkaline (pH 8.4); abrupt smooth boundary.

Ak2—3 to 14 inches; grayish brown (2.5Y 5/2) silty clay, very dark grayish brown (10YR 3/2) moist; common fine distinct masses of iron depletion, black (N 2/0) moist; moderate medium subangular blocky structure; very hard, friable, very sticky and very plastic; many very fine, fine, and medium roots; many fine and very fine tubular pores; 5 percent gravel; slightly effervescent; few fine soft masses of segregated lime; moderately alkaline (pH 8.3); clear smooth boundary.

Bg—14 to 27 inches; dark grayish brown (2.5Y 4/2) silty clay loam, very dark grayish brown (2.5Y 3/2) moist; few medium and common coarse prominent masses of iron accumulation, dark yellowish brown (10YR 4/6) moist, and common medium and few coarse prominent masses of iron depletion, black (N 2/0) moist; moderate medium subangular blocky structure; very hard, friable, very sticky and moderately plastic; few fine and very fine and common medium roots; many fine and very fine tubular pores; moderately alkaline (pH 7.9); abrupt wavy boundary.

2Cg1—27 to 41 inches; multicolored, dominantly olive gray (5Y 4/2) extremely gravelly coarse sand, dark gray (5Y 4/1) moist; single grain; loose, nonsticky and

nonplastic; 55 percent gravel and 10 percent cobbles; neutral (pH 7.3); clear smooth boundary.

2Cg2—41 to 60 inches; multicolored, dominantly olive gray (5Y 4/2) extremely gravelly coarse sand, dark gray (5Y 4/1) moist; single grain; loose, nonsticky and nonplastic; 40 percent gravel and 30 percent cobbles; neutral (pH 7.1).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 42 degrees F
 Thickness of mollic epipedon—24 to 30 inches
 Depth to sand and gravel (2Cg horizon)—20 to 35 inches
 Depth to high water table—18 to 36 inches in March through July
 Time of year flooding occurs—January through June

Particle-size control section:

Clay content in upper part—35 to 50 percent
 Clay content in lower part—2 to 12 percent

A horizon:

Hue—2.5Y or 10YR
 Value—3 to 5 dry, 2 or 3 moist
 Chroma—0 to 2 dry or moist
 Reaction—slightly alkaline or moderately alkaline

Bg horizon:

Hue—2.5Y or 5Y
 Value—4 or 5 dry, 2.5 to 4 moist
 Chroma—1 or 2 dry or moist
 Reaction—slightly alkaline or moderately alkaline
 Texture—silty clay or silty clay loam
 Rock fragment content—0 to 15 percent

2Cg horizon:

Texture—extremely gravelly loamy coarse sand, extremely cobbly loamy coarse sand, or extremely gravelly coarse sand
 Rock fragment content—65 to 85 percent

Windcoat Series

Taxonomic classification: Loamy, carbonatic, shallow Duric Xeric Petrocrydids

Depth class: Shallow to a duripan

Drainage class: Well drained

Permeability: Moderate above the hardpan and rapid below it

Position on landscape: Outwash fans and fan terraces

Parent material: Kind—alluvium; source—limestone

Slope range: 2 to 20 percent

Elevation: 6,000 to 8,000 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 35 to 38 degrees F

Frost-free period: 30 to 60 days

Typical Pedon Location

Map unit in which located: Windcoat gravelly silt loam, 2 to 6 percent slopes

Location in survey area: Lemhi County, Idaho; about 30 miles southeast of Leadore; about 800 feet west and 2,280 feet north of the southeast corner of sec. 11, T. 11 N., R. 28 E.; lat. 44°17'47" N., long. 113°02'45" W.

Typical Pedon

- A—0 to 3 inches; pale brown (10YR 6/3) gravelly silt loam, dark brown (10YR 4/3) moist; weak very fine and fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine, common fine, and few medium and coarse roots; many very fine and fine irregular pores; 15 percent gravel; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent (30 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear wavy boundary.
- Bkq1—3 to 10 inches; pale brown (10YR 6/3) gravelly silt loam, brown (10YR 5/3) moist; weak very fine and fine subangular blocky structure; soft, very friable, slightly sticky and nonplastic; many very fine and few fine, medium, and coarse roots; common very fine and fine tubular pores; 15 percent gravel; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent (45 percent calcium carbonate equivalent); moderately alkaline (pH 8.2); clear wavy boundary.
- Bkq2—10 to 14 inches; very pale brown (10YR 7/3) gravelly loam, pale brown (10YR 6/3) moist; weak fine subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; common very fine and few fine roots; common very fine tubular pores; 20 percent gravel and 5 percent cobbles; lime and silica coatings 1 to 5 millimeters thick on underside and some sides of rock fragments; violently effervescent (55 percent calcium carbonate equivalent); strongly alkaline (pH 8.5); abrupt wavy boundary.
- Bkqm—14 to 18 inches; white (10YR 8/2) indurated duripan, light brownish gray (10YR 6/2) moist; continuous silica-cemented laminar cap 1 millimeter thick at top of horizon; 50 percent gravel and 2 percent cobbles; violently effervescent (70 percent calcium carbonate equivalent); clear wavy boundary.
- 2Bkq1—18 to 30 inches; multicolored extremely gravelly coarse sandy loam; massive; 25 percent hard and firm, 25 percent very hard and very firm, and nonsticky and nonplastic, and 50 percent loose; common very fine and fine irregular pores; 60 percent gravel and 5 percent cobbles; lime and silica coatings and pendants 3 to 10 millimeters thick on underside of rock fragments; violently effervescent (65 percent calcium carbonate equivalent); very strongly alkaline (pH 9.2); gradual wavy boundary.
- 2Bkq2—30 to 60 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose, nonsticky and nonplastic; common very fine and fine irregular pores; 65 percent gravel and 10 percent cobbles; silica and lime coatings and pendants 3 to 10 millimeters thick on underside of rock fragments; rock fragments weakly cemented with silica pendants; violently effervescent (65 percent calcium carbonate equivalent); very strongly alkaline (pH 9.5).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F
 Average summer soil temperature—53 to 56 degrees F
 Depth to duripan—9 to 15 inches
 Reaction—moderately alkaline to very strongly alkaline

Particle-size control section:

Clay content—12 to 20 percent
 Rock fragment content—15 to 25 percent
 Calcium carbonate equivalent (average)—30 to 55 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist
 Chroma—2 or 3 dry or moist

Bkq horizon:

Value—5 to 7 dry, 4 to 6 moist

Chroma—3 or 4 dry or moist

Texture—gravelly silt loam or gravelly loam

Rock fragment content—15 to 25 percent

2Bkq horizon:

Texture—extremely gravelly coarse sandy loam or extremely gravelly loamy coarse sand

Rock fragment content—60 to 90 percent

Wiskisprings Series*Taxonomic classification:* Fine-loamy, mixed, superactive Cumulic Cryaquolls*Depth class:* Very deep*Drainage class:* Poorly drained*Permeability:* Moderate in the upper part and very rapid in the lower part*Position on landscape:* Flood plains*Parent material:* Kind—alluvium; source—mixed*Slope range:* 0 to 3 percent*Elevation:* 4,500 to 6,600 feet*Average annual precipitation:* 8 to 14 inches*Average annual air temperature:* 35 to 42 degrees F*Frost-free period:* 20 to 70 days**Typical Pedon Location***Map unit in which located:* Wiskisprings-Biglost complex, 0 to 3 percent slopes*Location in survey area:* Custer County, Idaho; about 3 miles southeast of the junction of U.S. Highway 93 and Trail Creek Road; about 2,000 feet south and 1,700 feet east of the northwest corner of sec. 13, T. 8 N., R. 22 E.; lat. 44°01'32" N., long. 113°47'50" W.**Typical Pedon**

- A—0 to 8 inches; dark brown (10YR 3/3) silt loam, black (10YR 2/1) moist; moderate fine angular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; common very fine and fine tubular pores; neutral (pH 7.0); clear smooth boundary.
- Bg1—8 to 17 inches; dark grayish brown (10YR 4/2) silt loam, very dark gray (10YR 3/1) moist; common fine and medium prominent masses of iron accumulation, brown (7.5YR 4/4) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine tubular pores; neutral (pH 7.3); clear wavy boundary.
- Bg2—17 to 21 inches; brown (10YR 5/3) silt loam, very dark grayish brown (10YR 3/2) moist; common fine prominent masses of iron accumulation, yellowish brown (10YR 5/6) moist; moderate medium subangular blocky structure; slightly hard, friable, sticky and plastic; few very fine and fine roots; many very fine and fine tubular pores; neutral (pH 7.3); clear wavy boundary.
- Bg3—21 to 28 inches; grayish brown (2.5Y 5/2) silt loam, very dark grayish brown (2.5Y 3/2) moist; common medium prominent masses of iron accumulation, yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/6) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine and fine and common medium irregular pores; slightly alkaline (pH 7.4); clear wavy boundary.
- Bg4—28 to 36 inches; grayish brown (2.5Y 5/2) silt loam, dark grayish brown (2.5Y

4/2) moist; common fine and medium prominent masses of iron accumulation, dark yellowish brown (10YR 4/6) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine and fine tubular and irregular pores; slightly alkaline (pH 7.4); gradual wavy boundary.

Bg5—36 to 49 inches; olive (5Y 5/3) silt loam, very dark grayish brown (2.5Y 3/2) moist; many fine and medium prominent masses of iron accumulation, strong brown (7.5YR 4/6) moist; massive; slightly hard, friable, sticky and plastic; common very fine and fine tubular pores; slightly alkaline (pH 7.4); gradual wavy boundary.

Bg6—49 to 54 inches; olive (5Y 5/3) gravelly loam, olive gray (5Y 4/2) moist; common fine and medium prominent masses of iron accumulation, strong brown (7.5YR 4/6) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common fine and medium irregular pores; 15 percent gravel; slightly alkaline (pH 7.4); gradual wavy boundary.

2C—54 to 60 inches; multicolored extremely gravelly loamy coarse sand; single grain; loose, nonsticky and nonplastic; common medium and coarse irregular pores; 65 percent gravel; slightly alkaline (pH 7.5).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 42 degrees F

Average summer soil temperature—50 to 55 degrees F

Thickness of mollic epipedon—20 to 30 inches

Depth to water table—6 to 12 inches in April through July

Time of year flooding occurs—January through June

Depth to sand and gravel (2C horizon)—40 to 60 inches

Particle-size control section:

Clay content—18 to 25 percent

Gravel content—0 to 20 percent

A horizon:

Value—3 or 4 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Bg horizon:

Hue—2.5Y, 5Y, 5GY, or 10YR

Value—4 or 5 dry, 3 or 4 moist

Chroma—2 to 4 dry, 1 to 3 moist

Texture—silt loam, gravelly loam, sandy clay loam, or gravelly silt loam

Gravel content—0 to 20 percent

2C horizon:

Gravel content—60 to 85 percent

Xeric Torrifluents

Taxonomic classification: Xeric Torrifluents

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very rapid in the lower part

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 1 to 3 percent

Elevation: 5,400 to 6,500 feet

Average annual precipitation: 8 to 11 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free period: 50 to 80 days

Representative Pedon Location

Map unit in which located: Xeric Torrifluvents, 1 to 3 percent slopes

Location in survey area: Custer County, Idaho; about 9 miles east of Clayton; about 500 feet south and 2,000 feet west of the northeast corner of sec. 33, T. 11 N., R. 19 E.

Representative Pedon

A—0 to 3 inches; light olive brown (2.5Y 5/4) loam, dark grayish brown (10YR 4/2) moist; weak thin platy structure parting to weak fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine irregular pores; 5 percent gravel; slightly effervescent; slightly alkaline (pH 7.8); clear wavy boundary.

Bk1—3 to 9 inches; light yellowish brown (2.5Y 6/4) loam, dark brown (10YR 4/3) moist; weak medium and coarse prismatic structure parting to weak medium and coarse subangular blocky; slightly hard, firm, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine tubular and irregular pores; 5 percent gravel; strongly effervescent; moderately alkaline (pH 8.0); gradual wavy boundary.

Bk2—9 to 23 inches; pale brown (10YR 6/3) loam, dark brown (10YR 4/3) moist; weak fine and medium prismatic structure parting to weak medium subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine and fine tubular pores; 5 percent gravel; 10 percent lime filaments in matrix; violently effervescent; moderately alkaline (pH 8.2); abrupt wavy boundary.

2Bk3—23 to 28 inches; light olive brown (2.5Y 5/4) gravelly loam, dark grayish brown (2.5Y 4/2) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine, common fine, and few medium roots; common very fine tubular and irregular pores; minor lenses of sandy material in horizon; 15 percent gravel; strongly effervescent; moderately alkaline (pH 8.0); abrupt wavy boundary.

3Bk4—28 to 35 inches; yellowish brown (10YR 5/4) loam, brown (10YR 4/3) moist; weak medium prismatic structure parting to weak medium subangular blocky; soft, friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine and fine tubular and irregular pores; minor lenses of gravelly material in lower part of horizon; 3 percent gravel; strongly effervescent; moderately alkaline (pH 8.0); clear wavy boundary.

3Bk5—35 to 44 inches; yellowish brown (10YR 5/4) loam, brown (10YR 4/3) moist; weak fine subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine roots; common very fine and few fine tubular and irregular pores; 2 percent gravel; violently effervescent; moderately alkaline (pH 8.2); abrupt wavy boundary.

4C—44 to 60 inches; yellowish brown (10YR 5/4) extremely gravelly loamy coarse sand, dark grayish brown (10YR 4/2) moist; single grain; loose, nonsticky and nonplastic; few very fine and medium and common fine roots; many very fine and fine tubular pores; 60 percent gravel; strongly effervescent; moderately alkaline (pH 8.2).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 44 degrees F

Depth to sand and gravel (4C horizon)—40 to 60 inches
 Time of year flooding occurs—March through September

Particle-size control section:

Clay content—10 to 16 percent
 Gravel content—0 to 25 percent

A horizon:

Hue—2.5Y or 10YR
 Value—3 or 4 moist
 Chroma—2 to 4 moist

Bk, 2Bk, and 3Bk horizons:

Hue—2.5Y or 10YR
 Value—5 or 6 dry, 3 or 4 moist
 Chroma—2 to 4 moist
 Texture—loam or gravelly loam

4C horizon:

Rock fragment content—60 to 85 percent
 Texture—extremely gravelly coarse sand, extremely gravelly loamy coarse sand, or extremely cobbly coarse sand

Xerolls

Taxonomic classification: Xerolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and very slow in the lower part

Position on landscape: Terraces

Parent material: Kind—colluvium; source—mixed

Slope range: 25 to 50 percent

Elevation: 3,900 to 5,400 feet

Average annual precipitation: 7 to 12 inches

Average annual air temperature: 38 to 42 degrees F

Frost-free period: 75 to 100 days

Representative Pedon Location

Map unit in which located: Calcids-Badland-Xerolls complex, rolling to very steep

Location in survey area: Lemhi County, Idaho; about 6 miles southeast of Baker; about 1,500 feet north of the southwest corner of sec. 16, T. 19 N., R. 24 E.

Representative Pedon

A1—0 to 5 inches; dark brown (10YR 4/3) silt loam, very dark grayish brown (10YR 3/2) moist; weak thin platy structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; neutral (pH 7.2); clear smooth boundary.

A2—5 to 11 inches; dark brown (10YR 4/3) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium and coarse roots; many very fine and fine irregular pores; 15 percent gravel; neutral (pH 7.2); clear wavy boundary.

Bw—11 to 16 inches; light yellowish brown (10YR 6/4) gravelly silt loam, yellowish brown (10YR 5/4) moist; moderate fine and medium angular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and

few medium roots; many very fine and fine irregular pores; 20 percent gravel; lime coatings 1 millimeter thick on rock fragments; slightly alkaline (pH 7.4); abrupt wavy boundary.

2Bk1—16 to 21 inches; very pale brown (10YR 7/4) clay, light yellowish brown (10YR 6/4) moist; strong medium angular blocky structure; hard, firm, very sticky and very plastic; common very fine and fine roots; few very fine tubular pores; 5 percent gravel; violently effervescent; moderately alkaline (pH 7.9); gradual wavy boundary.

2Bk2—21 to 28 inches; very pale brown (10YR 7/3) clay, brown (10YR 5/3) moist; massive; very hard, very firm, very sticky and very plastic; common very fine and fine roots; few very fine and fine tubular pores; 5 percent gravel; strongly effervescent; slightly alkaline (pH 7.8); gradual wavy boundary.

3Bk3—28 to 37 inches; very pale brown (10YR 7/3) very gravelly sandy loam, brown (10YR 5/3) moist; massive; soft, friable, slightly sticky and slightly plastic; common very fine and fine irregular pores; 35 percent gravel; strongly effervescent; slightly alkaline (pH 7.4); gradual wavy boundary.

4Bk4—37 to 51 inches; very pale brown (10YR 7/3) clay, brown (10YR 5/3) moist; massive; very hard, very firm, moderately sticky and moderately plastic; few very fine and fine tubular pores; 2 percent gravel; strongly effervescent; slightly alkaline (pH 7.6); gradual wavy boundary.

4Bk5—51 to 60 inches; pale brown (10YR 6/3) clay, dark brown (10YR 4/3) moist; massive; very hard, very firm, very sticky and very plastic; few very fine and fine tubular pores; 2 percent gravel; slightly alkaline (pH 7.5).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Rock fragment content—2 to 25 percent

Reaction—slightly alkaline or moderately alkaline

A horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—2 or 3 dry or moist

Bw horizon:

Value—4 to 6 dry, 4 or 5 moist

Chroma—3 or 4 dry

Texture—gravelly silt loam or gravelly loam

2Bk, 3Bk, and 4Bk horizons:

Value—4 to 7 dry or moist

Texture—stratified clay to very gravelly sandy loam

Rock fragment content—2 to 60 percent

Yankeefork Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Xeric Eutrocryepts

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately rapid in the upper part and very rapid in the lower part

Position on landscape: Outwash fans, fan terraces, and stream terraces

Parent material: Kind—glacial outwash and alluvium; source—mixed

Slope range: 2 to 6 percent

Elevation: 6,300 to 7,500 feet

Average annual precipitation: 12 to 19 inches

Average annual air temperature: 33 to 38 degrees F

Frost-free period: 5 to 30 days

Typical Pedon Location

Map unit in which located: Castlepeak-Yankeefork complex, 2 to 6 percent slopes

Location in survey area: Blaine County, Idaho; about 0.5 mile southwest of the junction of Alturas Lake Road and U.S. Highway 93; about 300 feet south and 1,300 feet west of the northeast corner of sec. 16, T. 7 N., R. 14 E.

Typical Pedon

A—0 to 2 inches; brown (10YR 4/3) gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; weak fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; common very fine and fine irregular pores; 25 percent gravel; moderately acid (pH 6.0); clear smooth boundary.

AB—2 to 6 inches; yellowish brown (10YR 5/4) gravelly sandy loam, dark yellowish brown (10YR 3/4) moist; weak fine subangular blocky structure parting to weak fine granular; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; common very fine and fine irregular pores; 25 percent gravel, dominantly fine gravel; slightly acid (pH 6.2); clear smooth boundary.

Bw1—6 to 9 inches; yellowish brown (10YR 5/4) very gravelly sandy loam, dark yellowish brown (10YR 3/4) moist; weak fine and medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and fine and few medium roots; common very fine and fine irregular pores; 35 percent gravel, dominantly fine gravel; slightly acid (pH 6.2); clear smooth boundary.

Bw2—9 to 17 inches; light yellowish brown (10YR 6/4) very gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and fine roots; common very fine and fine irregular pores; 45 percent gravel, of which 50 percent is fine gravel; slightly acid (pH 6.4); clear wavy boundary.

BC—17 to 28 inches; light yellowish brown (10YR 6/4) very gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common very fine and fine roots; common fine, medium, and coarse irregular pores; 40 percent gravel and 10 percent cobbles; slightly acid (pH 6.4); clear wavy boundary.

C1—28 to 46 inches; very pale brown (10YR 7/4) extremely gravelly coarse sand, yellowish brown (10YR 5/4) moist; single grain; loose, nonsticky and nonplastic; common medium and coarse irregular pores; 40 percent gravel, 20 percent cobbles, and 1 percent stones; neutral (pH 6.8); gradual wavy boundary.

C2—46 to 60 inches; very pale brown (10YR 7/3) extremely gravelly coarse sand, yellowish brown (10YR 5/4) moist; single grain; loose, nonsticky and nonplastic; common medium and coarse irregular pores; 50 percent gravel, 20 percent cobbles, and 10 percent stones; neutral (pH 6.8).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 39 degrees F

Average summer soil temperature—44 to 49 degrees F

Depth to sand and gravel (C horizon)—24 to 40 inches

Particle-size control section:

Clay content (average)—5 to 12 percent

Rock fragment content (average)—50 to 90 percent

A horizon:

Value—4 or 5 dry

Chroma—2 or 3 moist
 Reaction—strongly acid or moderately acid

AB, Bw, and BC horizons:

Value—5 or 6 dry, 3 or 4 moist
 Texture—very gravelly sandy loam or gravelly sandy loam
 Rock fragment content—25 to 50 percent
 Reaction—moderately acid or slightly acid

C horizon:

Value—5 or 6 moist
 Chroma—3 or 4 dry or moist
 Texture—extremely gravelly coarse sand or extremely cobbly coarse sand
 Rock fragment content—60 to 90 percent
 Stone content—1 to 10 percent
 Reaction—neutral or slightly acid

Yearian Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Fluvaquentic Endoaquolls

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderate

Position on landscape: Stream terraces and flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 8 percent

Elevation: 3,900 to 5,600 feet

Average annual precipitation: 8 to 13 inches

Average annual air temperature: 38 to 44 degrees F

Frost-free period: 70 to 100 days

Typical Pedon Location

Map unit in which located: Yearian very stony loam, 1 to 4 percent slopes

Location in survey area: Lemhi County, Idaho; about 3 miles northeast of Baker; about 2,000 feet west and 1,500 feet south of the northeast corner of sec. 9, T. 21 N., R. 23 E.; lat. 45°09'31" N., long. 113°44'32" W.

Typical Pedon

- A—0 to 2 inches; dark brown (10YR 4/3) very stony loam, black (10YR 2/1) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores; 10 percent gravel, 20 percent cobbles, and 5 percent stones; neutral (pH 6.8); clear wavy boundary.
- Ag—2 to 12 inches; dark grayish brown (10YR 4/2) very cobbly loam, very dark gray (10YR 3/1) moist; many medium prominent yellowish brown (10YR 5/6) masses of iron accumulation, dark yellowish brown (10YR 4/6) moist; weak fine subangular blocky structure; slightly hard, firm, slightly sticky and slightly plastic; common very fine, fine, and medium roots; many very fine and fine irregular pores; 15 percent gravel and 20 percent cobbles; neutral (pH 7.0); clear wavy boundary.
- Bg—12 to 22 inches; light brownish gray (2.5Y 6/2) very gravelly loam, light brownish gray (2.5Y 6/2) moist; many coarse prominent brownish yellow (10YR 6/6) masses of iron accumulation, strong brown (7.5YR 4/6) moist; moderate fine subangular blocky structure parting to moderate thin platy; slightly hard, friable, slightly sticky

and slightly plastic; common very fine and fine roots; many very fine and fine irregular pores; 40 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.4); clear wavy boundary.

Cg1—22 to 39 inches; light gray (2.5Y 7/2) very gravelly sandy loam, light brownish gray (2.5Y 6/2) moist; many medium and coarse prominent brownish yellow (10YR 6/6) masses of iron accumulation, strong brown (7.5YR 4/6) moist; massive; slightly hard, firm, slightly sticky and nonplastic; few very fine and fine roots; many very fine and fine irregular pores; 50 percent gravel and 5 percent cobbles; slightly alkaline (pH 7.4); gradual wavy boundary.

Cg2—39 to 60 inches; light gray (2.5Y 7/2) extremely gravelly sandy loam, light brownish gray (2.5Y 6/2) moist; many coarse prominent brownish yellow (10YR 6/6) masses of iron accumulation, strong brown (7.5YR 4/6) moist; massive; slightly hard, firm, nonsticky and nonplastic; few very fine roots; many very fine and fine irregular pores; 50 percent gravel, 15 percent cobbles, and 5 percent stones; slightly alkaline (pH 7.4).

Range in Characteristics

Profile:

Average annual soil temperature—39 to 43 degrees F

Depth to high water table—6 to 12 inches in April through June

Time of year flooding occurs—January through June

Thickness of mollic epipedon—10 to 15 inches

Reaction—neutral or slightly alkaline

Particle-size control section:

Clay content (average)—10 to 20 percent

Rock fragment content—35 to 75 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Texture—gravelly loam or very stony loam

Bg horizon:

Hue—10YR or 2.5Y

Value—5 to 7 dry, 4 to 6 moist

Chroma—2 to 4 dry or moist

Texture—very gravelly sandy loam, extremely gravelly sandy loam, or very gravelly loam

Cg horizon:

Hue—10YR, 2.5Y, or 5Y

Value—5 to 7 dry, 4 to 6 moist

Chroma—2 to 4 dry or moist

Texture—very gravelly sandy loam, extremely gravelly sandy loam, or very gravelly loam

Rock fragment content—35 to 75 percent

Zeale Series

Taxonomic classification: Loamy-skeletal, carbonatic Xeric Calcicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate

Position on landscape: Mountains, hills, and fan terraces

Parent material: Kind—alluvium; source—limestone

Slope range: 4 to 45 percent

Elevation: 6,500 to 8,600 feet

Average annual precipitation: 12 to 20 inches

Average annual air temperature: 34 to 42 degrees F

Frost-free period: 20 to 60 days

Typical Pedon Location

Map unit in which located: Zeale-Meegero complex, 20 to 40 percent slopes

Location in survey area: Custer County, Idaho; about 20 miles north of Mackay; about 2,100 feet east and 1,600 feet north of the southwest corner of sec. 13, T. 10 N., R. 24 E.; lat. 44°11'42" N., long. 113°33'47" W.

Typical Pedon

- A1—0 to 3 inches; brown (10YR 4/3) gravelly loam, dark brown (10YR 3/3) moist; weak very fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine irregular pores; 15 percent gravel and 5 percent cobbles; lime coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent (35 percent calcium carbonate equivalent); slightly alkaline (pH 7.8); clear wavy boundary.
- A2—3 to 9 inches; brown (10YR 4/3) gravelly loam, dark brown (10YR 3/3) moist; weak very fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; common very fine and few fine irregular pores; 25 percent gravel and 5 percent cobbles; few lime coatings 2 millimeters thick on underside of rock fragments; strongly effervescent (45 percent calcium carbonate equivalent); slightly alkaline (pH 7.7); clear smooth boundary.
- Bk1—9 to 13 inches; strong brown (7.5YR 5/6) very gravelly loam, strong brown (7.5YR 4/6) moist; weak very fine and fine subangular blocky structure parting to weak very fine and fine granular; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine irregular pores; 35 percent gravel and 15 percent cobbles; common lime coatings less than 2 millimeters thick on underside and sides of rock fragments; violently effervescent (65 percent calcium carbonate equivalent); slightly alkaline (pH 7.7); clear wavy boundary.
- Bk2—13 to 24 inches; reddish yellow (7.5YR 6/6) very gravelly loam, strong brown (7.5YR 4/6) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine irregular and tubular pores; 40 percent gravel and 15 percent cobbles; common lime coatings less than 2 millimeters thick on underside and some sides of rock fragments; soft masses of secondary lime in old root channels; violently effervescent (65 percent calcium carbonate equivalent); moderately alkaline (pH 7.9); gradual wavy boundary.
- Bk3—24 to 40 inches; reddish yellow (7.5YR 6/6) extremely cobbly loam, strong brown (7.5YR 4/6) moist; weak very fine and fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; few very fine irregular pores and common very fine tubular pores; 30 percent gravel and 40 percent cobbles; many lime coatings less than 3 millimeters thick on entire surface of rock fragments; lime filaments and common soft masses of secondary lime in old root channels; violently effervescent (70 percent calcium carbonate equivalent); moderately alkaline (pH 8.1); gradual wavy boundary.
- Bk4—40 to 60 inches; reddish yellow (7.5YR 6/6) extremely cobbly loam, strong brown (7.5YR 5/6) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; common

very fine irregular pores and few fine and very fine tubular pores; 30 percent gravel and 45 percent cobbles; many lime coatings less than 2 millimeters thick on entire surface of rock fragments; violently effervescent (70 percent calcium carbonate equivalent); moderately alkaline (pH 8.1).

Range in Characteristics

Profile:

Average annual soil temperature—35 to 43 degrees F
 Average summer soil temperature—46 to 52 degrees F
 Thickness of mollic epipedon—8 to 14 inches
 Depth to calcic horizon—2 to 18 inches

Particle-size control section:

Clay content—15 to 25 percent
 Rock fragment content—40 to 70 percent
 Calcium carbonate equivalent—40 to 80 percent

A horizon:

Value—3 or 4 dry, 2 or 3 moist
 Chroma—1 to 3 dry or moist

Bk horizon:

Hue—7.5YR or 10YR
 Value—5 to 7 dry and 3 to 5 moist
 Chroma—3 to 6 dry or moist
 Texture—very gravelly loam, extremely cobbly loam, or extremely gravelly sandy loam
 Rock fragment content—45 to 75 percent
 Reaction—slightly alkaline to strongly alkaline

Zeebar Series

Taxonomic classification: Loamy-skeletal, mixed, superactive Xeric Argicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Ridges, mountains, and hills

Parent material: Kind—colluvium; source—extrusive igneous rock

Slope range: 5 to 50 percent

Elevation: 5,300 to 9,000 feet

Average annual precipitation: 13 to 20 inches

Average annual air temperature: 34 to 42 degrees F

Frost-free period: 20 to 60 days

Typical Pedon Location

Map unit in which located: Donkehill-Zeebar complex, 8 to 50 percent slopes

Location in survey area: Custer County, Idaho; about 3.5 miles north of Clayton; about 600 feet north and 1,200 feet east of the southwest corner of sec. 10, T. 10 N., R. 20 E.; lat. 44°12'20" N., long. 114°06'18" W.

Typical Pedon

A—0 to 8 inches; dark brown (10YR 3/3) gravelly loam, very dark brown (10YR 2/2) moist; weak very fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and common fine tubular pores; 20 percent gravel; neutral (pH 6.6); clear wavy boundary.

- Bt1—8 to 14 inches; dark yellowish brown (10YR 4/4) very gravelly loam, dark brown (10YR 3/3) moist; moderate very fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; common very fine and fine tubular pores; common faint clay films on faces of peds and in pores; 35 percent gravel and 5 percent cobbles; neutral (pH 6.6); gradual wavy boundary.
- Bt2—14 to 22 inches; yellowish brown (10YR 5/4) very gravelly loam, dark yellowish brown (10YR 4/4) moist; moderate fine prismatic structure parting to moderate fine subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; many very fine, common fine, and few medium roots; common very fine and fine tubular pores; common faint clay films on faces of peds and in pores; 35 percent gravel and 10 percent cobbles; neutral (pH 6.7); gradual wavy boundary.
- Bt3—22 to 35 inches; light olive brown (2.5Y 5/4) very gravelly sandy clay loam, dark brown (10YR 4/3) moist; moderate fine and medium prismatic structure; hard, firm, moderately sticky and moderately plastic; common very fine roots; common very fine and fine tubular pores; common distinct clay films on faces of peds and in pores; 25 percent gravel and 20 percent cobbles; neutral (pH 6.9); gradual wavy boundary.
- Bt4—35 to 49 inches; light olive brown (2.5Y 5/4) extremely gravelly sandy clay loam, dark yellowish brown (10YR 4/4) moist; weak medium and coarse subangular blocky structure; slightly hard, friable, moderately sticky and moderately plastic; few very fine roots; common very fine and fine tubular pores; common faint and few distinct clay films on faces of peds and in pores; 35 percent gravel and 25 percent cobbles; neutral (pH 7.2); gradual wavy boundary.
- C—49 to 60 inches; light olive brown (2.5Y 5/4) extremely gravelly sandy clay loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine tubular pores; 40 percent gravel and 30 percent cobbles; slightly alkaline (pH 7.4).

Range in Characteristics

Profile:

Average annual soil temperature—37 to 40 degrees F
 Average summer soil temperature—52 to 59 degrees F
 Thickness of mollic epipedon—10 to 16 inches
 Reaction—neutral or slightly alkaline

Particle-size control section:

Clay content—18 to 30 percent
 Rock fragment content—40 to 60 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist
 Chroma—2 or 3 dry, 1 to 3 moist

Bt horizon:

Hue—2.5Y, 7.5YR, or 10YR
 Value—4 to 6 dry, 3 to 5 moist
 Chroma—3 or 4 dry, 2 to 4 moist
 Texture—very gravelly loam, very gravelly clay loam, very gravelly sandy clay loam, extremely gravelly sandy clay loam, extremely gravelly clay loam, gravelly clay loam, or gravelly loam

C horizon:

Hue—2.5Y, 7.5YR, or 10YR
 Value—5 to 7 dry, 4 or 5 moist
 Chroma—3 or 4 dry or moist

Texture—extremely gravelly sandy clay loam, extremely gravelly loam, or extremely gravelly sandy loam

Zeegee Series

Taxonomic classification: Fine-silty, mixed, superactive, frigid Typic Endoaquolls

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Moderately slow

Position on landscape: Stream terraces

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 3,700 to 4,200 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 42 to 44 degrees F

Frost-free period: 70 to 90 days

Typical Pedon Location

Map unit in which located: Zeegee-Ajax complex, 0 to 2 percent slopes

Location in survey area: Lemhi County, Idaho; about 1 mile north of Salmon; about 1,600 feet west and 500 feet south of the northeast corner of sec. 31, T. 22 N., R. 22 E.; lat. 45°12'04" N., long. 114°54'01" W.

Typical Pedon

Oi—3 inches to 0; slightly decomposed roots.

Ag—0 to 11 inches; grayish brown (10YR 5/2) silty clay, very dark grayish brown (10YR 3/2) moist; few fine prominent masses of iron accumulation that are strong brown (7.5YR 5/6) when moist; strong coarse angular blocky structure; very hard, very firm, very sticky and very plastic; common medium and coarse roots; common fine tubular pores; moderately alkaline (pH 8.0); clear smooth boundary.

Bg1—11 to 16 inches; pale brown (10YR 6/3) silty clay loam, dark grayish brown (10YR 4/2) moist; common medium distinct masses of iron depletion that are gray (10YR 5/1) when moist; strong coarse subangular blocky structure; hard, firm, moderately sticky and moderately plastic; common fine tubular pores; slightly alkaline (pH 7.8); clear smooth boundary.

Bg2—16 to 27 inches; pale brown (10YR 6/3) silty clay loam, dark brown (10YR 4/3) moist; many coarse distinct masses of iron depletion that are dark gray (10YR 4/1) when moist; strong coarse subangular blocky structure; hard, firm, moderately sticky and moderately plastic; common fine tubular pores; slightly alkaline (pH 7.6); clear smooth boundary.

Bg3—27 to 35 inches; pale brown (10YR 6/3) silty clay loam, dark brown (10YR 4/3) moist; many fine distinct masses of iron depletion that are dark gray (10YR 4/1) when moist; weak very coarse subangular blocky structure; hard, firm, moderately sticky and moderately plastic; common fine tubular pores; slightly alkaline (pH 7.8); clear smooth boundary.

2Cg—35 to 60 inches; pale brown (10YR 6/3) extremely gravelly silt loam, dark brown (10YR 4/3) moist; many fine distinct masses of iron depletion that are dark gray (10YR 4/1) when moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common fine tubular pores; 55 percent gravel and 10 percent cobbles; moderately alkaline (pH 8.0).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 42 degrees F

Depth to high water table—6 to 12 inches in March through July

Time of year flooding occurs—January through June

Thickness of mollic epipedon—7 to 18 inches

Depth to the extremely gravelly material (2Cg horizon)—35 to 45 inches

Particle-size control section:

Clay content—20 to 35 percent

Ag horizon:

Value—4 or 5 dry, 2 or 3 moist

Chroma—1 to 3 dry or moist

Reaction—slightly alkaline or moderately alkaline

Bg horizon:

Hue—10YR or 2.5Y

Value—4 to 7 dry, 3 to 6 moist

Chroma—1 to 3 dry or moist

Reaction—slightly alkaline or moderately alkaline

Texture—silty clay loam, clay loam, or silt loam

2Cg horizon:

Hue—10YR or 2.5Y

Chroma—1 to 3 dry or moist

Reaction—slightly alkaline or moderately alkaline

Texture—extremely gravelly silt loam or extremely gravelly very fine sandy loam

Rock fragment content—60 to 85 percent

Zeelnot Series

Taxonomic classification: Loamy-skeletal, carbonatic Xeric Calcicryolls

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderately slow

Position on landscape: Ridges, hills, and mountains

Parent material: Kind—colluvium; source—limestone

Slope range: 5 to 70 percent

Elevation: 7,200 to 9,000 feet

Average annual precipitation: 13 to 16 inches

Average annual air temperature: 35 to 39 degrees F

Frost-free period: 10 to 40 days

Typical Pedon Location

Map unit in which located: Zeelnot-Meegernot-Adek association, 5 to 40 percent slopes

Location in survey area: Custer County, Idaho; about 3 miles southeast of Willow Creek Summit; about 1,100 feet south and 400 feet east of the northwest corner of sec. 21, T. 10 N., R. 21 E.; lat. 44°11'08" N., long. 113°59'25" W.

Typical Pedon

A—0 to 10 inches; dark brown (10YR 3/3) gravelly loam, very dark brown (10YR 2/2) moist; weak very fine and fine granular structure; soft, friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine irregular pores and few very fine and fine tubular pores; 20 percent gravel; neutral (pH 7.1); clear wavy boundary.

Bkq1—10 to 18 inches; yellowish brown (10YR 5/4) very gravelly loam, dark yellowish

brown (10YR 3/4) moist; moderate fine and medium subangular blocky structure; slightly hard, firm, slightly sticky and slightly plastic; common very fine and fine roots; common very fine and fine tubular pores; 40 percent gravel and 5 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside of rock fragments; strongly effervescent (35 percent calcium carbonate equivalent); slightly alkaline (pH 7.6); clear wavy boundary.

Bkq2—18 to 24 inches; light yellowish brown (10YR 6/4) very gravelly loam, dark yellowish brown (10YR 4/4) moist; strong fine subangular blocky structure; slightly hard, firm, sticky and plastic; few very fine and fine roots; common very fine and fine tubular pores; 50 percent gravel and 5 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside and some sides of rock fragments; violently effervescent (40 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear wavy boundary.

Bkq3—24 to 32 inches; light yellowish brown (2.5Y 6/4) extremely gravelly loam, light olive brown (2.5Y 5/4) moist; strong fine angular blocky structure; slightly hard, firm, sticky and plastic; few very fine and fine roots; common very fine and few fine tubular pores; 50 percent gravel and 10 percent cobbles; lime and silica coatings less than 1 millimeter thick on underside and some sides of rock fragments; violently effervescent (45 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear wavy boundary.

2Bkq4—32 to 56 inches; pale yellow (2.5Y 7/4) extremely cobbly silty clay loam, light olive brown (2.5Y 5/4) moist; strong fine angular blocky structure; few very fine and fine roots; common very fine and few fine tubular pores; hard, firm, very sticky and very plastic; 25 percent gravel and 50 percent cobbles; lime and silica coatings and pendants 2 to 5 millimeters thick on all sides of rock fragments; 20 percent by volume soft secondary lime threads between peds; violently effervescent (45 percent calcium carbonate equivalent); moderately alkaline (pH 8.0); clear wavy boundary.

2Bkq5—56 to 60 inches; pale yellow (2.5Y 7/4) extremely cobbly clay loam, olive yellow (2.5Y 6/6) moist; strong fine angular blocky structure; hard, firm, very sticky and very plastic; common very fine tubular pores; 20 percent gravel and 65 percent cobbles; lime and silica coatings and pendants 2 to 5 millimeters thick on all sides of rock fragments; 20 percent by volume soft secondary lime threads between peds; violently effervescent; moderately alkaline (pH 8.3).

Range in Characteristics

Profile:

Average annual soil temperature—36 to 40 degrees F
 Average summer soil temperature—46 to 50 degrees F
 Thickness of mollic epipedon—8 to 12 inches
 Depth to calcic horizon—8 to 12 inches

Particle-size control section:

Clay content in upper part—16 to 22 percent
 Clay content in lower part—27 to 39 percent
 Rock fragment content—55 to 75 percent
 Calcium carbonate equivalent (average)—40 to 50 percent

A horizon:

Value—3 to 5 dry, 2 or 3 moist
 Reaction—neutral or slightly alkaline

Bkq horizon:

Hue—2.5Y or 10YR
 Value—5 to 7 dry, 3 to 5 moist
 Chroma—3 or 4 dry or moist

Rock fragment content—45 to 60 percent
 Reaction—slightly alkaline or moderately alkaline

2Bkq horizon:

Hue—7.5YR, 2.5Y, or 10YR
 Value—6 or 7 dry, 4 to 6 moist
 Chroma—3 to 6 dry or moist
 Texture—extremely cobbly clay loam or extremely cobbly silty clay loam
 Rock fragment content—60 to 85 percent
 Reaction—slightly alkaline or moderately alkaline

Zeph Series

Taxonomic classification: Sandy-skeletal, mixed, frigid Aeric Fluvaquents

Depth class: Very deep

Drainage class: Poorly drained

Permeability: Slow in the upper part and very rapid in the lower part

Position on landscape: Flood plains

Parent material: Kind—alluvium; source—mixed

Slope range: 0 to 2 percent

Elevation: 3,700 to 5,200 feet

Average annual precipitation: 9 to 12 inches

Average annual air temperature: 42 to 44 degrees F

Frost-free period: 70 to 90 days

Typical Pedon Location

Map unit in which located: Wimpey-Zeph-Ajax complex, 0 to 2 percent slopes

Location in survey area: Lemhi County, Idaho; about 16 miles southeast of Salmon; about 1,300 feet north and 250 feet west of the southeast corner of sec. 6, T. 19 N., R. 24 E.; lat. 45°00'08" N., long. 115°39'38" W.

Typical Pedon

Oe—3 inches to 0; moderately decomposed roots.

Ag—0 to 5 inches; gray (N 5/0) silty clay, very dark grayish brown (2.5Y 3/2) moist; moderate medium angular blocky structure; hard, firm, very sticky and very plastic; many very fine and fine roots; many fine and very fine tubular pores; slightly effervescent; slightly alkaline (pH 7.7); abrupt smooth boundary.

2Cg1—5 to 16 inches; gray (N 6/0) very gravelly coarse sand, dark olive gray (5Y 3/2) moist; single grain; loose; nonsticky and nonplastic many very fine and fine roots; many very fine and fine irregular pores; 45 percent gravel; slightly alkaline (pH 7.8); abrupt smooth boundary.

2Cg2—16 to 19 inches; yellowish red (5YR 5/8) extremely gravelly coarse sand, dark brown (7.5YR 3/4) moist; single grain; loose, nonsticky and nonplastic; common very fine and fine roots; many very fine and fine irregular pores; 60 percent gravel; slightly alkaline (pH 7.4); abrupt smooth boundary.

2Cg3—19 to 23 inches; gray (5Y 6/1) extremely gravelly coarse sand, olive gray (5Y 4/2) moist; many medium prominent masses of iron accumulation that are strong brown (7.5YR 5/6) when moist and are on rock fragments; single grain; loose, nonsticky and nonplastic; common very fine and fine roots; many very fine and fine irregular pores; 60 percent gravel; slightly alkaline (pH 7.5); clear smooth boundary.

2Cg4—23 to 60 inches; multicolored extremely gravelly coarse sand; many fine prominent masses of iron accumulation that are strong brown (7.5YR 5/6) when moist and are on rock fragments; single grain; loose, nonsticky and nonplastic; few

very fine and fine roots; many fine irregular pores; 40 percent gravel, 15 percent cobbles, and 5 percent stones; neutral (pH 7.3).

Range in Characteristics

Profile:

Average annual soil temperature—40 to 42 degrees F
 Depth to sand and gravel (2C horizon)—4 to 9 inches
 Reaction—neutral or slightly alkaline
 Depth to high water table—6 to 12 inches in March through June
 Time of year flooding occurs—January through June

Particle-size control section:

Clay content—5 to 8 percent
 Rock fragment content (average)—35 to 70 percent

Ag horizon:

Hue—neutral, or 2.5Y or 10YR
 Value—2 to 5 dry, 2 or 3 moist
 Chroma—0 to 2 dry, 1 or 2 moist

2Cg1 horizon:

Hue—neutral, or 2.5Y or 5Y
 Value—4 to 6 dry, 3 or 4 moist
 Chroma—0 to 2 dry, 2 or 3 moist
 Texture—extremely gravelly coarse sand, extremely gravelly loamy coarse sand, or very gravelly coarse sand
 Rock fragment content—45 to 70 percent

2Cg2 horizon (where present):

Hue—5YR or 7.5YR (red hue is a result of iron redoximorphic accumulations)
 Value—5 or 6 dry, 3 to 5 moist
 Chroma—6 to 8 dry, 4 to 6 moist
 Texture—extremely gravelly coarse sand, extremely gravelly loamy coarse sand, or very gravelly coarse sand
 Rock fragment content—45 to 70 percent

2Cg3 and 2Cg4 horizons:

Value—5 to 7 dry, 3 to 5 moist
 Chroma—1 to 3 dry, 2 to 4 moist
 Texture—extremely gravelly coarse sand or extremely gravelly loamy coarse sand
 Rock fragment content—60 to 80 percent

Zer Series

Taxonomic classification: Loamy-skeletal, mixed, superactive, frigid Xeric Haplocalcids

Depth class: Very deep

Drainage class: Well drained

Permeability: Moderate in the upper part and rapid or moderately rapid in the lower part

Position on landscape: Hills, stream terraces, and fan terraces

Parent material: Kind—colluvium; source—quartzite

Slope range: 1 to 50 percent

Elevation: 4,500 to 8,000 feet

Average annual precipitation: 7 to 12 inches

Average annual air temperature: 37 to 44 degrees F

Frost-free period: 50 to 90 days

Typical Pedon Location

Map unit in which located: Zer-Snowslide complex, 1 to 4 percent slopes

Location in survey area: Lemhi County, Idaho; about 5 miles northwest of Leadore; about 2,600 feet east and 900 feet north of the southwest corner of sec. 14, T. 16 N., R. 25 E.

Typical Pedon

- A—0 to 2 inches; light yellowish brown (10YR 6/4) gravelly loam, dark brown (10YR 3/3) moist; weak medium and thick platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; common very fine irregular and vesicular pores; 15 percent gravel; slightly alkaline (pH 7.3); abrupt wavy boundary.
- Bw—2 to 5 inches; yellowish brown (10YR 5/4) gravelly loam, dark yellowish brown (10YR 3/4) moist; weak very fine and fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; many very fine irregular pores; 20 percent gravel; lime and silica coatings less than 4 millimeters thick on underside of rock fragments; slightly effervescent; moderately alkaline (pH 7.9); abrupt wavy boundary.
- Bkq1—5 to 14 inches; very pale brown (10YR 7/4) very gravelly loam, dark yellowish brown (10YR 3/4) moist; weak very fine and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; common very fine irregular pores; 40 percent gravel and 5 percent cobbles; lime and silica coatings less than 8 millimeters thick on underside of rock fragments; violently effervescent; slightly alkaline (pH 7.6); clear wavy boundary.
- Bkq2—14 to 20 inches; very pale brown (10YR 7/4) extremely gravelly sandy loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine and few fine irregular pores; 45 percent gravel and 20 percent cobbles; lime and silica coatings less 4 millimeters thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 7.9); abrupt wavy boundary.
- Bkq3—20 to 26 inches; light yellowish brown (10YR 6/4) extremely gravelly sandy loam, yellowish brown (10YR 5/4) moist; massive; soft, very friable, slightly sticky and nonplastic; common very fine and few fine roots; many very fine and few fine irregular pores; 45 percent gravel and 20 percent cobbles; lime and silica coatings less than 2 millimeters thick on underside of rock fragments; violently effervescent; moderately alkaline (pH 7.9); abrupt wavy boundary.
- Bkq4—26 to 34 inches; very pale brown (10YR 8/3) extremely gravelly sandy loam, yellowish brown (10YR 5/4) moist; massive; 60 percent slightly hard and friable, 40 percent hard and firm, slightly sticky and slightly plastic; few very fine roots; few very fine and fine irregular pores; 45 percent gravel and 20 percent cobbles; lime and silica coatings less than 2 millimeters thick on underside of rock fragments that cement fine irregular gravel and sand to rock fragments; weakly cemented pockets; strongly effervescent; strongly alkaline (pH 9.0); clear wavy boundary.
- Bkq5—34 to 60 inches; light yellowish brown (10YR 6/4) extremely gravelly sandy loam, yellowish brown (10YR 5/4) moist; massive; 60 percent slightly hard and very friable, 40 percent hard and firm, slightly sticky and slightly plastic; few very fine roots; many very fine and few fine and medium irregular pores; 50 percent gravel and 30 percent cobbles; lime and silica coatings less than 2 millimeters thick on underside of rock fragments that cement fine irregular gravel and sand to rock fragments; strongly effervescent and slightly effervescent in areas; moderately alkaline (pH 8.0).

Range in Characteristics*Profile:*

Average annual soil temperature—40 to 44 degrees F

Depth to calcic horizon—5 to 10 inches

Reaction—slightly alkaline to strongly alkaline

Particle-size control section:

Clay content—12 to 18 percent

Rock fragment content—45 to 80 percent

Calcium carbonate equivalent—15 to 40 percent

A horizon:

Value—5 or 6 dry, 3 or 4 moist

Chroma—3 or 4 dry or moist

Texture—gravelly loam, very gravelly silt loam, or very cobbly loam

Bw horizon:

Value—5 to 7 dry, 3 or 4 moist

Chroma—2 to 4 dry or moist

Texture—gravelly silt loam or gravelly loam

Rock fragment content—15 to 30 percent

Bkq horizon:

Value—6 to 8 dry, 3 to 6 moist

Chroma—3 or 4 dry or moist

Texture of the upper part—very gravelly loam, very gravelly sandy loam, or extremely gravelly sandy loam

Texture of the lower part—extremely gravelly sandy loam, very gravelly loamy sand, or extremely gravelly loamy sand

Rock fragment content—40 to 80 percent

Formation of the Soils

By Karl Hipple, soil scientist, Natural Resources Conservation Service.

Soil is a natural body covering the land surface in which plants grow. It is a fundamental part of the ecosystem and exists in balance with other components of the environment.

Soils are characterized by their vertical sequence of layers, called horizons, that vary in color, texture, chemistry, or structure, or a combination of these properties. Horizons are continually forming and evolving, generally over long periods of time, in response to environmental forces. These forces, or soil-forming factors, are parent material, climate, biological forces, landscape relief, and time. The combined action of these forces varies from place to place, but it ultimately results in soil formation. Although one or two of these forces may dominate the process of soil formation, a particular set of soil-forming factors gives rise to a unique soil profile. The differences between soils can be traced to differences in one or more soil-forming factors.

Parent Material

The soils in this survey area formed in residual, colluvial, alluvial, and lacustrine material. Minor eolian influence related to post-glacial events is recognizable in the surface horizons in some parts of the survey area. Several kinds of parent material of differing ages are in the area, including metamorphic, sedimentary, intrusive and extrusive igneous rock, glacial drift, sediment, and river and stream alluvium. The age of the parent material varies widely and a complex, active geologic history makes it difficult to accurately describe the exact location and stratigraphic position of the parent material.

The oldest parent material is Precambrian sedimentary and metamorphosed sedimentary rock of the Belt Supergroup (Ross and Savage, 1967). Quartzite, slate, and phyllite are dominant. This rock formed the mountains of the Continental Divide, which is the eastern boundary of the survey area. Elevation ranges from 6,000 to 11,000 feet, and slopes are very steep. Other areas of quartzite have been exposed by the downcutting of the Salmon River and are scattered throughout the survey area.

Intricate landscapes formed by the plucking and scouring action of alpine glaciers are common along the Continental Divide. Cirques and rocky peaks occur at the highest elevations. Ketchum and Klug soils are representative of these areas. These soils are on very steep, metastable slopes in areas where the climate is cold and moist. Soils on mountains are more than 35 percent rock fragments, and soil development is minimal. At the lower elevations, moderately steep and steep ridges and canyons have formed mainly as a result of streamcutting, frost, and the cold climate. The soils are more than 35 percent rock fragments, and they have a fine textured subsoil. Cronks and Challis soils are examples.

Paleozoic sedimentary rock, limestone, and dolomite, which occur as a result of sediment accumulating in shallow seas, are in the Lemhi Mountain Range, which separates the Lemhi River and Pahsimeroi River Valleys. This rock also occurs in the Lost River Valley and the Whiteknob Mountains, which surround the Big Lost River Valley. The sedimentary rock is strongly folded and faulted. Evidence of recent faulting

is documented by an earthquake registering 7.1 on the Richter scale, which occurred on October 28, 1983, in the vicinity of Mt. Borah (elevation 12,662 feet) in the Lost River Mountain Range. The fault scarp was about 23 miles long with a maximum vertical displacement of 10 to 12 feet. These mountains range from 6,500 to more than 12,000 feet in elevation, and the slopes are very steep. They also contain landscapes related to alpine glaciation. The soils are more than 35 percent rock fragments and are high in content of lime. Zeale and Adek soils are common.

Cretaceous intrusive rock of the Idaho Batholith occurs in the Sawtooth and Salmon River Mountains, in the western and northwestern parts of the survey area. Granite, gneiss, and schist are dominant. Elevation in these areas ranges from 6,000 to more than 10,000 feet. Slopes are steep and very steep. Evidence of Pleistocene glaciation is abundant in the Sawtooth Mountains. Aretes, cirques, moraines, and cirque lakes are dominant landscape features. The soils have developed in glacial drift derived from the Cretaceous igneous rock. They are sandy, are more than 35 percent coarse fragments, and have characteristics that reflect soil development under a dominantly cold, moist climate. Struggle soils are common.

Tertiary extrusive igneous rock of the Challis Volcanic Group occurs dominantly on low mountains and foothills in the survey area. Major rock types of this group are rhyolite, tuff, basalt, andesite, and latite. This rock was extruded onto the existing rugged landscape and filled the older, deeply cut valleys (Ross and Savage, 1967). Some explosive volcanic eruptions were the source of pyroclastic material for much of central and southern Idaho. Volcanic activity caused dams that resulted in temporary lakes in which sediment collected. Many present basins containing fossils are evidence of these phenomena. Bradshaw Basin, Corral Basin, and Antelope Flat are examples. Elevation ranges from 4,000 to 8,000 feet, and slopes are moderately steep or steep. The soils that formed in the Challis Volcanics, excluding rhyolite and tuff, have an argillic horizon overlying a calcic horizon. The soils are more than 35 percent rock fragments. Dawtonia, Dacont, Custco, Gaciba, and Resoot soils are examples. The soils that formed in tuff are weakly developed, contain lime, and are highly erosive. Frailton, Gradco, and Farvant soils are examples.

Miocene sediment of the Greerson, Kirtley, and Kenney Formations occurs on foothills and dissected terraces along the Lemhi River and near Salmon. The source of this Miocene sediment is erosional material of the Challis Volcanic Group and its subsequent deposition into a fault-produced basin at Salmon (Ross and Savage, 1967; Ruppel, 1967). The extent of Salmon Basin Lake was apparently physically controlled by and limited to the structural trench of the Lemhi River bounded by the Continental Divide on the east and the Lemhi Mountain Range on the west. Additional strike-slip faulting, downwarping of the Snake River depression, and uplift of an arch parallel to and north of the depression produced Gilmore Summit, Donkey Hills, and Willow Creek Summit as points along the arch. The arch effectively divided the existing southeasterly drainage patterns, turning the Lemhi and Pahsimeroi Rivers and Warm Springs Creek in a northeasterly direction to their present confluence with the Salmon River. Uplift of Gilmore Summit and flow reversal of the Lemhi River drained Salmon Basin Lake and exposed or removed portions of the lacustrine sediment (Ruppel, 1967). Remnants of this sediment are sporadic from Tower Creek, north of Salmon, to Middle Ridge, south of Leadore. The sediment is composed of stratified shale, sandstone, pebbly conglomerate, and bentonite. Spectacular exposures of stratified bentonite are a few miles southeast of the confluence of the Lemhi and Salmon Rivers. Erosion and instability of the bentonite have created areas of Badland. Elevation is 3,500 to 7,200 feet, and slopes are gently sloping to moderately steep. The soils range from those that are fine textured and have a strong influence of sodium, such as the Millhi and Lacrol soils, to those that are coarse textured and have a calcic horizon, such as the Oxhead and Escarlo soils.

Pleistocene alpine glaciation in many parts of the survey area has formed

characteristic glacial features. Cirques, rocky peaks, glacial peaks, glacial lakes, moraines, and extensive glaciofluvial features such as outwash fans and fan terraces are examples. Most glacial features in the survey area are of late Pleistocene age, although remnants of early Pleistocene glaciation occur in the upper part of the Pahsimeroi River Valley (Knoll, 1977). Strongly developed, fine textured soils are on Goldberg Hills and at the top of Donkey Hills at an elevation of 5,500 to 8,500 feet. Slopes are gently sloping to moderately steep. An example of soils that formed in early Pleistocene glacial material is the Goldhill soils. Fan terraces are extensive in the Birch Creek, Pahsimeroi River, and Big Lost River Valleys. Elevation in these areas ranges from 4,000 to 7,000 feet, and slopes are gently sloping to moderately steep. The soils commonly are more than 50 percent rounded coarse fragments, and some are shallow to a duripan. Leatherman and Mountainboy soils are examples of those that have a duripan and formed in alluvium derived from limestone. Kadletz and Pahsimeroi soils are examples of those on fan terraces that do not have a duripan and formed in alluvium derived from quartzite.

Another result of glaciation has been the development of patterned ground in periglacial areas. Extensive areas of patterned ground are on outwash fans and fan terraces in the Birch Creek area of southern Lemhi County. During periods of glaciation, these areas were considerably colder and the soils were frozen much of the time. Thawing of the frozen soils was uneven, and it occurred mostly in areas where a restrictive layer was at a depth of less than 4 feet. This uneven thawing produced a polygon pattern of soils where erosion or slippage in the partially thawed areas altered the thickness of the soils. The result was a complex area of mounds and intermounds. Fandow and Bluedome soils are in this area. Fandow soils are shallow to a duripan, and Bluedome soils are moderately deep to a duripan.

Holocene alluvium derived from a variety of sources is in low-lying positions along rivers and streams throughout the area. The valley flats are gently sloping, and elevation is 3,500 to 7,000 feet. The soils on valley flats are somewhat poorly drained or poorly drained, and they have a seasonal high water table. Many of these soils have 1 to 2 feet of medium textured material overlying extremely gravelly or sandy material. Keele and Fury soils are examples. Minor areas of organic soils are at the higher elevations along major rivers. These soils consist of 1 to 3 feet of organic material over sand and gravel. Chillybu and Grandjean soils are examples.

Climate

Climate has a strong influence on soil formation. Temperature and precipitation affect the weathering of rock; the decomposition of minerals; the processes of leaching, illuviation, and eluviation; the kind and amount of vegetation; and the accumulation and rate of decomposition of organic matter. The climate in the survey area is characterized by cool, dry summers and cold, moist winters.

Precipitation in the survey area ranges from 6 inches per year near Challis to more than 35 inches per year in the high mountainous areas. The wide range in precipitation is mainly a result of the high mountains causing an orographic lift of the moist airmasses coming into the area from the Pacific Ocean. Precipitation in summer is mainly a result of thunderstorms, which many times produce large amounts of precipitation in short periods of time. These events commonly result in spectacular erosion, especially in areas of soils that formed in material derived from tuff. Contrasts in climate are common within short distances, depending on elevation, aspect, and proximity to the mountains.

Temperature in the survey area is variable. It is strongly influenced by the topography of the area. Mountainous areas generally have cooler temperatures in summer and colder temperatures in winter than do the low-lying valleys. In most places in the survey area, frost can occur on any day of the year.

Generally, the average annual precipitation increases and the average annual temperature decreases as elevation increases. The warmest area, but not the driest, is at the lowest elevations in the northeastern corner of the survey area, near Salmon. This area receives about 8.8 inches of precipitation annually and has an average annual temperature of about 44 degrees F. The driest area is at Challis, where the average annual precipitation is about 6.9 inches and the average annual temperature is about 44 degrees. The greatest amount of precipitation and the coldest temperatures occur in the Beaverhead, Lemhi, Lost River, and Sawtooth Mountain Ranges.

The present climate is profoundly different from past climates when glacial activity was underway (Pleistocene). Evidence of past and present climates is exhibited by the existing landforms and characteristics of the soils. Extensive areas of outwash fans and fan terraces are evidence that the past climate, probably a post-glaciation period, was much wetter than the present climate. The present dry climate has preserved outwash fans and fan terraces by minimizing erosion and alteration of these landforms. Soil characteristics that exhibit multiple climates are the extremely gravelly subsoil that has dominantly coarse fragments rounded by water transport and the presence of lime at a shallow depth in the Whitecloud and Arbus soils. The rounded gravel was deposited during a much wetter climate, and the lime has not been leached out of the soil profile because of the present dry climate.

With an average annual soil temperature of 39 to 43 degrees, most of the soils in the survey area have a frigid temperature regime. At the high elevations, generally above 6,000 feet, and especially on north and east aspects, the soils have a cryic temperature regime. The cool soil temperatures tend to restrict mineral decomposition and microbial activity. A reduced rate of organic matter decomposition by oxidation and microbes allows organic matter to accumulate in soils and darken the surface layer. The precipitation that infiltrates the soils in winter and spring is effective in leaching soil components such as lime, basic cations, and clay; however, leaching is not adequate to entirely remove them from the profile. An argillic horizon has formed in areas where clay has accumulated. A duripan has formed in areas where silica, probably from the weathering of volcanic glass, has precipitated and cemented the soils. At the higher elevations, along the Continental Divide, precipitation is abundant but the colder temperatures restrict the rate of mineral decomposition. Microbial activity is limited to a very short period of time in summer, and soil development is minimal. The Zeebar soils have an argillic horizon, and the Leatherman soils have a duripan where silica and lime have precipitated and cemented soil layers at a hydrologic discontinuity. The hydrologic discontinuity by a pore size differential is at the boundary of the coarse textured subsoil (extremely gravelly loamy sand) and the medium textured overlying material (very gravelly loam). The Ketchum soils at the higher elevations exhibit characteristics of minimal soil development.

Living Organisms

All living organisms are important factors in the process of soil development. Changes they produce are related to life processes peculiar to each kind of organism. The kinds of organisms that live in and on the soils are determined by climate, parent material, topography, and age of the soil.

Man's influence on soil development is mainly related to mining, logging, farming, and ranching activities. Applications of irrigation water to soils that naturally receive much less precipitation allow more and different kinds of plants to grow. Life processes typical of the new cultivated plant community add more organic matter to the soil, resulting in a darker surface layer. Shaping and grading of the soils for more effective use of irrigation water remove and redistribute the surface layer. Drainage systems used to lower the water table alter soil chemistry, microbial activity, and commonly the plant community on a soil. Logging and mining activities alter soil formation by

distributing and modifying the arrangement of naturally formed soil layers. Rehabilitation efforts alter topography and soil drainage and introduce new plant communities.

Poorly drained and very poorly drained soils on valley flats support water-tolerant grasses, sedges, and forbs. Because the growth of aerobic micro-organisms has been inhibited by the permanent high water table in the Chillybu soils, an organic soil has developed.

The kind and amount of vegetation on well drained soil is directly related to effective moisture. The vegetation in lower precipitation areas is mainly shrubs and grasses. In the highest precipitation areas, the vegetation is mainly an overstory of coniferous trees and a sparse understory of shrubs, grasses, and forbs.

Outwash fans and fan terraces occur in the rainshadow of major mountain ranges or in areas where snow is removed by wind in winter; thus, the average annual precipitation is about 7 or 8 inches. There is limited production of vegetation, and annual additions of organic matter to the surface layer are small. Soluble salts are at a shallow depth; therefore, these soils support salt-tolerant plants. Ringle, Kadletz, Mitring, and Farvant soils are examples of those in the driest portions of the survey area.

On the lower foothills, fan terraces, and ridges in the survey area, where the average annual precipitation is about 8 to 12 inches, there is a somewhat limited production of vegetation. Because the vegetation tends to be sparser in these areas than in moister areas, the annual addition of organic matter is relatively small. As a result, soils such as those of the Dawtonia, Pahsimeroi, Venum, Sparmo, and Bayhorse series have a light-colored surface layer.

Soils at middle elevations also support shrubs and grasses. Precipitation is higher on these soils, and the amount of vegetation, especially grasses, is much higher. The abundance of fibrous roots adds ample humus to the soils, and a thick dark-colored surface layer has formed. Micro-organisms are active on these soils, influencing the dark color, structure, and physical conditions of the soils. Heathcoat, Zeale, Chamberlain, Firebox, Mountainboy, and Freidman soils are examples.

At the higher elevations, where effective moisture is greatest, the soils formed under an overstory of conifers and an understory of sparse shrubs, grasses, and forbs. This type of plant community does not produce an abundant fibrous root system, and most of the organic material is derived from needles, twigs, and leaves. Organic material does not decompose as rapidly at the higher elevations because of the cold temperatures. The soils have a layer of organic litter on top of a thin, dark-colored surface layer, such as in the Lag and Lemco soils, or they have a light-colored surface layer, such as in the Ketchum soils.

Animal activity also influences soil development. Insects, worms, rodents, and other burrowing animals tunnel into soils. They mix the horizons and enhance drainage, organic material decomposition, and air movement in the soils. Cicada castings, which have been weakly cemented by lime and silica, are evidence of animal activity. The profile of the soils on periglacial mounds in the Birch Creek area exhibit very little horizon differentiation because of animal activity. Soils on mounds are deeper to a duripan or an extremely gravelly or cobbly layer than those in intermound areas. Badgers and ground squirrels burrow into the mounds and mix the soil material.

Topography

Topography in the area has been determined mainly by the events of its geologic history. Topography influences soil formation through its effect on erosion, natural soil drainage, air drainage, precipitation, and exposure to sun and wind. The survey area is characterized by hilly to very steep mountain slopes, very steep and steep rugged canyons, gently rolling to steep foothills, gently sloping to moderately steep outwash fans and fan terraces, and nearly level to gently sloping terraces and flood plains.

Soils of the mountains and foothills demonstrate the effects of topography on development very dramatically. The soils on these hilly to very steep slopes are well drained, and they formed in colluvium and slope alluvium derived from bedrock. This material has been moved slowly downslope by gravity and water erosion, and it typically contains angular rock fragments of all sizes. South- and west-facing, convex ridges and summits are subject to geologic erosion and receive less effective moisture because the wind removes snow in winter. The soil temperature generally is warmer because the soils receive more direct sunlight, and moisture is removed rapidly from the soils. Also, leaching of soluble ions and lime is less than on other aspects; therefore, lime in the profile is closer to the surface. The soils on convex ridges and summits commonly are shallow or moderately deep. Bayhorse, Holinrock, Mitring, and Mogg soils are examples of shallow or moderately deep soils that have a light-colored surface layer and more than 35 percent angular rock fragments.

Soils in south- and west-facing, concave positions and on footslopes receive additional moisture from run-on and drifting snow. The additional moisture produces more vegetation, leaches lime deeper into the soil profile, and results in a darker colored surface layer. The additional vegetation also reduces the risk of soil erosion. Soils in the less sloping areas are more stable, and they commonly have an argillic horizon. Cronks, Custco, Dacont, and Klug soils are examples of very deep soils that have a dark-colored surface layer and generally are in concave positions and on footslopes. Klug soils are on steeper slopes and do not have an argillic horizon.

Soils that have a thick dark-colored surface layer occur on concave, north- and east-facing slopes and on footslopes. These soils receive additional effective moisture from run-on and drifting snow, but they receive less direct sunlight and therefore have cooler temperatures. Vegetation is abundant, which reduces the risk of erosion. Organic matter accumulates in these soils because of the higher production of vegetation and because the cooler temperatures inhibit microbial activity. Freidman, Meegero, Parkay, and Povey soils are examples.

Deeply incised, rugged canyons have been formed by a combination of geologic uplift and downcutting of major river systems such as the Salmon River. Canyon slopes are steep and very steep, and the soils in these positions are extremely variable. Rock outcrop and Rubble land commonly are on all aspects on canyon slopes. Soil depth is variable, depending on the proximity to areas of Rock outcrop and the position on the slope. Soils near areas of Rock outcrop commonly are shallow, and those in concave areas and on footslopes are deeper. Soils on south- and west-facing canyon slopes are well drained and dry out rapidly because they receive abundant direct sunlight. They also are warmer than soils on north- and east-facing slopes. Leaching of soluble ions and lime and soil development is minimal. These soils commonly have a light-colored surface layer. Soils of the Calcids suborder represent those on south- and west-facing canyon slopes. North- and east-facing canyon slopes receive little direct sunlight, are cooler and moister, and support more abundant vegetation. The soils have a dark-colored surface layer. Cryolls are common on these slopes.

Soils on outwash fans and fan terraces are well drained and are characterized by an abundance of rounded coarse fragments. The soils commonly exhibit very little development, except those that formed in alluvium derived from limestone. The soils commonly have a duripan at a shallow depth, and in areas where a duripan is not present, the soil horizons commonly are partially cemented with coatings and pendants of lime and silica. Fandow and Leatherman soils formed in alluvium derived from limestone and have a duripan at a shallow depth. Outwash fans and fan terraces in the rainshadow of major mountain ranges receive a low amount of precipitation, and thus minimal leaching of lime and salts has taken place. Sparse vegetation is characteristic of the soils in these areas; thus, they have a light-colored surface layer. Kadletz, Pahsimeroi, Whiteknob, and Whitecloud soils receive additional precipitation. These

soils exhibit very little soil development and have a light-colored surface layer, but salts have been leached to a greater depth in the profile. At higher elevations where additional precipitation occurs, the soils are weakly developed but they have a dark-colored surface layer. Firebox and Wiggleton soils are examples.

The soils on terraces and flood plains are nearly level to gently sloping. The soils on higher lying terraces have better drainage than those on low terraces and flood plains. Pattee, Perreau, and Shenon soils are on high terraces and are well drained. Drainage is poor on the low terraces and flood plains because of the nearly level topography and the shallow natural stream channels. The soils in these areas have a high or fluctuating water table. Leecreek, Lemroi, and Thosand soils formed on flood plains and low terraces. These soils are gleyed and exhibit redoximorphic features as a result of the poor drainage.

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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.

Alluvial fan. The fanlike deposit of a stream where it issues from a gorge upon a plain or of a tributary stream near or at its junction with its main stream.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

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.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction in which a slope faces.

Association, soil. A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.

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

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.

Basal area. The area of a cross section of a tree, generally referring to the section at breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet.

Basal till. Compact glacial till deposited beneath the ice.

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.

- Bedrock.** The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.
- Bedrock-controlled topography.** A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.
- 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 the 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.
- Breast height.** An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.
- 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.
- Calclc horizon.** An illuvial horizon in which secondary calcium carbonate or other carbonates have accumulated.
- Calcium carbonate equivalent.** The amount of calcium carbonate in the soil measured by treating the soil sample with hydrochloric acid (HCL). The evolved carbon dioxide (CO₂) is measured. The amount of carbonate is then calculated as calcium carbonate (CaCO₃).
- 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.
- Canopy.** The leafy crown of trees or shrubs. (See Crown.)
- 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.
- 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.
- Channery soil material.** Soil material that has, 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.

- Cirque.** A semicircular, concave, bowl-like area that has steep faces primarily resulting from glacial ice and snow abrasion.
- 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.
- 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.
- 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 has 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.
- COLE (coefficient of linear extensibility).** See Linear extensibility.
- 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.
- 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."

- 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.
- 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.
- Crown.** The upper part of a tree or shrub, including the living branches and their foliage.
- Culmination of the mean annual increment (CMAI).** The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.
- 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.
- 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, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.
- Desert pavement.** On a desert surface, a layer of gravel or larger fragments that was emplaced by upward movement of the underlying sediments or that remains after finer particles have been removed by running water or the wind.
- Dissimilar soils.** Soils that behave differently and require different management than the named soils and similar soils in a map unit.
- 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.
- Draw.** A small stream valley that generally is more open and has broader bottom land than a ravine or gulch.
- Duff.** A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.
- Durinodes.** Weakly cemented to indurated nodules with a diameter of 1 centimeter or more. The cement is silica oxide (SiO₂).

- Duripan.** A subsurface horizon that is cemented with silica to the extent that fragments do not slake upon prolonged soaking in water or hydrochloric acid (HCL).
- Ecological site.** An area where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. An ecological 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 ecological sites in kind and/or proportion of species or in total production.
- 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.
- Erosion (by water or wind).* The hazard of erosion based on the susceptibility of the bare or unprotected soil surface to erosion. The hazard, referred to as slight, moderate, or severe, is a subjective interpretation used to group similar soils and identify soils in which erosion is a significant management concern. The dominant factor for interpreting the hazard of water erosion is the steepness of slope, and that for interpreting the hazard of wind erosion is the texture of the soil 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.
- Extrusive rock.** Igneous rock derived from deep-seated molten matter (magma) emplaced on the earth's surface.
- 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.
- Fan terrace.** A relict alluvial fan, no longer a site of active deposition, incised by younger and lower alluvial surfaces.
- 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.

Flaggy soil material. Material that has, 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 position that forms the inner, gently inclined surface at the base of a hillslope. In profile, footslopes are commonly concave. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

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.

Glacial drift. Pulverized and other rock material transported by glacial ice and then deposited. Also, the sorted and unsorted material deposited by streams flowing from glaciers.

Glacial outwash. Gravel, sand, and silt, commonly stratified, deposited by glacial meltwater.

Glacial till. Unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice.

Glaciofluvial deposits. Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and occur as kames, eskers, deltas, and outwash plains.

Glaciolacustrine deposits. Material ranging from fine clay to sand derived from glaciers and deposited in glacial lakes mainly by glacial meltwater. Many deposits are interbedded or laminated.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

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.

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.

Hard to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

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.

Historic 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.

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.
- Indurated.** The strongest degree of cementation in a soil horizon.
- 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.
- 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 accumulations.** High-chroma zones having a high content of iron and manganese oxide because of chemical oxidation. A type of redoximorphic concentration.
- 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:
Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.
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.
- Kame.** An irregular, short ridge or hill of stratified glacial drift.
- Knoll.** A small, low, rounded hill rising above adjacent landforms.
- Krotovinas.** Irregular tubular streaks within one layer of soil material transported from another layer. They are caused by the filling of tunnels made by burrowing animals.
- K_{sat} .** Saturated hydraulic conductivity. (See Permeability.)
- Lacustrine terrace.** Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

- Landslide.** The rapid downhill movement of a mass of soil and loose rock, generally when wet or saturated. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.
- 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.
- Linear extensibility.** Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. 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. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.
- 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.
- Loess.** Fine grained material, dominantly of silt-sized particles, deposited by wind.
- 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.
- 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.
- 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 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.
- Moraine.** An accumulation of earth, stones, and other debris deposited by a glacier. Some types are terminal, lateral, medial, and ground.
- 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).

Mountain. A natural elevation of the land surface, rising more than 1,000 feet above surrounding lowlands, commonly of restricted summit area (relative to a plateau) and generally having steep sides. A mountain can occur as a single, isolated mass or in a group forming a chain or range.

Muck. Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)

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 of 6.6 to 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

Outwash fan. An accumulation of outwash material deposited by meltwater streams in front of the end or recessional moraine of a glacier.

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.

Peat. Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

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 movement of water through the soil.

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:

Impermeable	less than 0.0015 inch
Very slow	0.0015 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.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

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.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

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.

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.

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.

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, savannas, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.

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

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.

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, elevated land surface that generally is sharp crested and has steep sides.

Rill. A steep-sided channel resulting from accelerated erosion. A rill generally is a few inches deep and not wide enough to be an obstacle to farm machinery.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

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 groundwater runoff or seepage flow from ground water.

Saline soil. A soil containing soluble salts in an amount that impairs growth of plants. A saline soil does not contain excess exchangeable sodium.

Sand. As a soil separate, individual rock or mineral fragments 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.

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.

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.

- 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.
- 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.** The position that forms the uppermost inclined surface near the top of a hillslope. It is a transition from backslope to summit. 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.
- Side slope.** A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel.
- 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.
- Site index.** A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.
- 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 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.
- 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, classes for complex slopes are as follows:
- | | |
|--------------------|-----------------------|
| Level | 0 to 1 percent |
| Nearly level | 0 to 3 percent |
| Undulating | 1 to 8 percent |
| Rolling | 4 to 16 percent |
| Hilly | 10 to 30 percent |
| Steep | 20 to 60 percent |
| Very steep | 45 percent and higher |
- Slow refill** (in tables). The slow filling of ponds, resulting from restricted permeability in 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	13-30:1
Strong	more than 30:1

Sodium adsorption ratio (SAR). A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.

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.

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.

Stream terrace. One platform or a series of platforms in a stream valley, flanking and more or less parallel to the stream channel. Originally formed near the level of a stream and representing older flood plain remnants.

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 grained* (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 that is 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. The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

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.

Talus. Fragments of rock and other soil material accumulated by gravity at the foot of cliffs or steep slopes.

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terminal moraine. A belt of thick glacial drift that generally marks the termination of important glacial advances.

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 generally is 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 that is 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 position that forms the gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

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.

Tuff. A compacted deposit that is 50 percent or more volcanic ash and dust.

Upland. Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Variiegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

Varve. A sedimentary layer or a lamina or sequence of laminae deposited in a body of

still water within a year. Specifically, a thin pair of graded glaciolacustrine layers seasonally deposited, usually by meltwater streams, in a glacial lake or other body of still water in front of a glacier.

Weathering. All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.

Well graded. Refers to soil material consisting of coarse grained particles that are well 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.

Tables

Table 1.--Temperature and Precipitation

(Recorded in the period 1961-90 at Challis, Grouse, and Salmon KSRA, Idaho)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average	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 snowfall
				Maximum temperature higher than--	Minimum temperature lower than--			Less than--	More than--		
°F	°F	°F	°F	°F	Units	In	In	In		In	
CHALLIS:											
January-----	30.6	10.7	20.7	52	-19	2	0.48	0.20	0.75	1	3.9
February-----	38.1	16.3	27.2	56	-11	4	0.35	0.09	0.55	1	1.9
March-----	47.1	23.7	35.4	67	4	35	0.46	0.21	0.68	1	1.7
April-----	57.3	31.0	44.2	78	16	167	0.53	0.18	0.85	1	0.9
May-----	66.9	39.0	52.9	87	24	403	1.12	0.52	1.64	4	0.1
June-----	76.5	46.4	61.4	95	32	641	1.10	0.51	1.60	3	0.0
July-----	86.0	51.5	68.7	98	38	890	0.68	0.19	1.12	1	0.0
August-----	83.8	49.6	66.7	97	36	826	0.68	0.27	1.03	2	0.0
September---	73.2	40.7	57.0	91	24	510	0.78	0.15	1.31	2	0.1
October-----	60.8	31.6	46.2	80	14	224	0.41	0.13	0.71	1	0.1
November----	43.1	22.0	32.5	64	-3	24	0.54	0.16	0.85	1	2.6
December----	30.9	11.6	21.3	52	-18	1	0.58	0.18	0.94	2	4.2
Yearly:											
Average---	57.9	31.2	44.5	---	---	---	---	---	---	---	---
Extreme---	103	-34	---	99	-24	---	---	---	---	---	---
Total-----	---	---	---	---	---	3,726	7.70	6.25	8.93	20	15.4

See footnote at end of table.

Table 1.--Temperature and Precipitation--Continued

Month	Temperature						Precipitation					
	Average daily maximum	Average daily minimum	Average	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 snowfall	
				Maximum temperature higher than--	Minimum temperature lower than--			Less than--	More than--			
	°F	°F	°F	°F	°F	Units	In	In	In		In	
GROUSE:												
January-----	28.2	-1.0	13.6	47	-34	0	1.31	0.46	2.02	3	14.8	
February----	33.8	2.4	18.1	49	-28	0	1.05	0.54	1.70	3	12.7	
March-----	40.9	11.6	26.3	57	-16	1	1.15	0.56	1.81	3	9.6	
April-----	51.3	22.8	37.1	73	2	55	1.04	0.28	1.65	3	4.1	
May-----	61.9	30.8	46.4	80	15	213	1.57	0.73	2.40	4	1.6	
June-----	70.3	37.2	53.7	86	23	410	1.72	0.82	2.50	5	0.0	
July-----	79.8	40.4	60.1	90	28	622	0.98	0.25	1.56	2	0.0	
August-----	78.7	39.1	58.9	91	25	584	1.05	0.24	1.75	3	0.0	
September---	69.5	31.0	50.2	86	13	318	0.90	0.24	1.47	2	0.6	
October-----	57.7	22.3	40.0	76	2	91	0.59	0.25	1.00	2	0.7	
November----	40.4	12.8	26.6	60	-15	3	1.19	0.56	1.81	4	8.4	
December----	29.3	0.6	15.0	48	-31	0	1.33	0.46	2.14	4	17.1	
Yearly:												
Average---	53.5	20.8	37.2	---	---	---	---	---	---	---	---	
Extreme---	94	-42	---	93	-37	---	---	---	---	---	---	
Total-----	---	---	---	---	---	2,297	13.89	10.47	16.49	38	69.5	

See footnote at end of table.

Table 1.--Temperature and Precipitation--Continued

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average	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 snowfall
				Maximum temperature higher than--	Minimum temperature lower than--			Less than--	More than--		
°F	°F	°F	°F	°F	Units	In	In	In		In	
SALMON KSRA:											
January-----	29.9	11.2	20.6	51	-22	1	0.71	0.36	1.01	2	8.3
February-----	38.6	17.2	27.9	58	-14	5	0.52	0.18	0.84	1	4.3
March-----	50.3	25.7	38.0	71	6	55	0.56	0.33	0.82	2	2.4
April-----	61.4	31.8	46.6	84	17	218	0.72	0.23	1.12	2	1.3
May-----	69.8	38.9	54.4	90	24	444	1.47	0.79	2.06	5	0.1
June-----	79.5	46.2	62.9	98	32	686	1.27	0.64	1.83	4	0.0
July-----	88.6	51.0	69.8	102	38	923	1.01	0.23	1.63	3	0.0
August-----	86.4	48.8	67.6	100	37	855	0.96	0.45	1.40	3	0.0
September---	75.1	40.1	57.6	94	24	527	0.81	0.20	1.35	2	0.0
October-----	60.9	30.8	45.8	81	13	210	0.51	0.18	0.82	1	0.1
November----	43.0	23.0	33.0	63	-3	24	0.74	0.26	1.13	2	3.7
December----	30.8	12.8	21.8	54	-17	1	0.80	0.29	1.22	2	8.2
Yearly:											
Average---	59.5	31.5	45.5	---	---	---	---	---	---	---	---
Extreme---	105	-34	---	102	-26	---	---	---	---	---	---
Total-----	---	---	---	---	---	3,949	10.08	8.18	11.88	29	28.3

*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).

Table 2.--Freeze Dates in Spring and Fall

(Recorded in the period 1961-90 at Challis, Grouse, and Salmon KSRA, Idaho)

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
CHALLIS:			
Last freezing temperature in spring:			
1 year in 10 later than--	May 5	May 27	June 18
2 years in 10 later than--	May 1	May 21	June 10
5 years in 10 later than--	April 23	May 10	May 25
First freezing temperature in fall:			
1 year in 10 earlier than--	September 23	September 15	September 7
2 years in 10 earlier than--	September 29	September 20	September 11
5 years in 10 earlier than--	October 11	September 30	September 19
GROUSE:			
Last freezing temperature in spring:			
1 year in 10 later than--	June 19	July 11	July 27
2 years in 10 later than--	June 10	July 3	July 20
5 years in 10 later than--	May 25	June 19	July 8
First freezing temperature in fall:			
1 year in 10 earlier than--	August 27	August 7	August 1
2 years in 10 earlier than--	September 1	August 14	August 7
5 years in 10 earlier than--	September 11	August 27	August 17

Table 2.--Freeze Dates in Spring and Fall--Continued

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
SALMON KSRA:			
Last freezing temperature in spring:			
1 year in 10 later than--	May 3	May 24	June 11
2 years in 10 later than--	April 28	May 18	June 5
5 years in 10 later than--	April 20	May 7	May 25
First freezing temperature in fall:			
1 year in 10 earlier than--	September 23	September 19	September 9
2 years in 10 earlier than--	September 28	September 23	September 12
5 years in 10 earlier than--	October 8	October 2	September 18

Table 3.--Growing Season

(Recorded in the period 1961-90 at Challis,
Grouse, and Salmon KSRA, Idaho)

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	<i>Days</i>	<i>Days</i>	<i>Days</i>
CHALLIS:			
9 years in 10	148	119	87
8 years in 10	155	126	97
5 years in 10	169	141	115
2 years in 10	183	156	134
1 year in 10	191	163	144
GROUSE:			
9 years in 10	78	40	13
8 years in 10	88	50	22
5 years in 10	108	69	39
2 years in 10	128	89	57
1 year in 10	138	99	66
SALMON KSRA:			
9 years in 10	147	124	98
8 years in 10	155	132	104
5 years in 10	170	147	115
2 years in 10	185	162	126
1 year in 10	193	169	132

Table 4.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Blaine County	Custer County	Lemhi County	Total	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
1	Alpinepeak very gravelly sandy loam, 1 to 4 percent slopes-----	0	1,595	0	1,595	*
2	Aquents-Riverwash complex, nearly level-----	0	446	1,322	1,768	*
3	Arbus gravelly loam, 1 to 4 percent slopes---	0	16,941	0	16,941	0.9
4	Arco silt loam, 0 to 2 percent slopes-----	0	697	780	1,477	*
5	Badland-Millhi complex, 10 to 50 percent slopes-----	0	0	4,148	4,148	0.2
6	Bartonflat gravelly loam, 1 to 4 percent slopes-----	0	146	8,695	8,841	0.5
7	Bartonflat very gravelly sandy loam, 0 to 6 percent slopes-----	0	10,820	398	11,218	0.6
8	Bartonhill-Whitecloud complex, 5 to 15 percent slopes-----	0	4,196	0	4,196	0.2
9	Bayhorse association, 20 to 50 percent slopes	0	4,727	0	4,727	0.2
10	Bayhorse-Dawtonia association, 15 to 40 percent slopes-----	0	1,184	0	1,184	*
11	Bigflat-Dacont complex, 4 to 8 percent slopes	0	0	612	612	*
12	Biglost-Copperbasin complex, 0 to 4 percent slopes-----	0	3,143	3,654	6,797	0.3
13	Bigrant complex, 0 to 2 percent slopes-----	0	118	455	573	*
14	Bigrant-Thosand-Dickeypeak complex, 0 to 4 percent slopes-----	0	5,929	1,920	7,849	0.4
15	Blackfoot loam, 0 to 2 percent slopes-----	0	1,606	0	1,606	*
16	Blackfoot-Borco complex, 0 to 2 percent slopes-----	0	1,349	129	1,478	*
17	Bluedome loam, 2 to 6 percent slopes-----	0	5,139	2,497	7,636	0.4
18	Bock-Breitenbach complex, 4 to 8 percent slopes-----	0	0	1,730	1,730	*
19	Bock-Bromaglin complex, 1 to 4 percent slopes	0	1,475	3,329	4,804	0.2
20	Bockston loam, 0 to 4 percent slopes-----	0	839	0	839	*
21	Brabas-Heathcoat complex, 8 to 30 percent slopes-----	0	0	6,511	6,511	0.3
22	Breitenbach gravelly loam, 1 to 4 percent slopes-----	0	1,578	695	2,273	0.1
23	Breitenbach gravelly loam, 4 to 8 percent slopes-----	0	0	452	452	*
24	Breitenbach gravelly loam, 8 to 12 percent slopes-----	0	0	141	141	*
25	Bunting gravelly loam, 0 to 2 percent slopes	0	3,819	0	3,819	0.2
26	Bunting gravelly loam, cool, 0 to 2 percent slopes-----	0	1,756	0	1,756	*
27	Bunting-Moffspring complex, 0 to 2 percent slopes-----	0	2,598	0	2,598	0.1
28	Bursteadt-Tohobit complex, 0 to 3 percent slopes-----	0	3,684	5,998	9,682	0.5
29	Busterback-Wiggleton complex, 2 to 6 percent slopes-----	2,241	7,920	352	10,513	0.5
30	Calcids-Badland-Xerolls complex, rolling to very steep-----	0	0	2,490	2,490	0.1
31	Calcids-Rubble land-Rock outcrop complex, 50 to 80 percent slopes-----	0	37,253	29,511	66,764	3.4
32	Castlepeak-Yankeefork complex, 2 to 6 percent slopes-----	1,510	1,627	706	3,843	0.2
33	Chamberlain gravelly loam, 2 to 8 percent slopes-----	0	1,590	22,501	24,091	1.2
34	Coalkiln-Zeelnot association, 35 to 70 percent slopes-----	0	918	1,869	2,787	0.1
35	Copperbasin-Redfish complex, 0 to 3 percent slopes-----	505	414	64	983	*
36	Copperbasin, cool-Redfish complex, 1 to 4 percent slopes-----	0	299	1,620	1,919	*

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Blaine County	Custer County	Lemhi County	Total	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
37	Cowbone-Tohobit complex, 0 to 3 percent slopes-----	0	493	3,260	3,753	0.2
38	Cronks-Challis association, 20 to 50 percent slopes-----	0	4,340	23,216	27,556	1.4
39	Cronks-Venum association, 6 to 20 percent slopes-----	0	1,678	968	2,646	0.1
40	Cryolls-Rubble land complex, 20 to 50 percent slopes-----	0	1,955	4,969	6,924	0.4
41	Cryolls-Rubble land-Rock outcrop complex, 50 to 80 percent slopes-----	0	24,712	22,263	46,975	2.4
42	Cryepts-Rubble land-Rock outcrop complex, 50 to 80 percent slopes-----	0	13,000	16,300	29,300	1.5
43	Custco stony loam, 8 to 15 percent slopes----	0	0	836	836	*
44	Dacont-Custco association, 20 to 50 percent slopes-----	0	2,092	10,827	12,919	0.7
45	Dacont-Resoot-Nielsen association, 6 to 40 percent slopes-----	0	3,183	15,072	18,255	0.9
46	Dacont-Zeebar association, 20 to 50 percent slopes-----	0	23,294	23,745	47,039	2.4
47	Darlington-Lesbut complex, 1 to 4 percent slopes-----	0	2,007	0	2,007	0.1
48	Dawtonia gravelly loam, 4 to 8 percent slopes	0	8,389	6,139	14,528	0.7
49	Dawtonia-Dawtonia, cold complex, 5 to 25 percent slopes-----	0	37	1,284	1,321	*
50	Dawtonia, cold-Dawtonia complex, 2 to 5 percent slopes-----	0	1,778	0	1,778	*
51	Dawtonia-Frailton complex, 20 to 50 percent slopes-----	0	14,237	7,527	21,764	1.1
52	Dawtonia-Kehar-Soen complex, 10 to 30 percent slopes-----	0	3,987	0	3,987	0.2
53	Dawtonia-Rock outcrop complex, 20 to 50 percent slopes-----	0	3,056	0	3,056	0.2
54	Dawtonia-Custco association, 20 to 50 percent slopes-----	0	4,916	26,616	31,532	1.6
55	Dawtonia-Dacont association, 20 to 50 percent slopes-----	0	42,280	4,506	46,786	2.4
56	Derwell-Whiteknob complex, 2 to 6 percent slopes-----	0	3,563	0	3,563	0.2
57	Derwell-Zer-Packmo complex, 1 to 20 percent slopes-----	0	4,610	28	4,638	0.2
58	Dickeypeak-Bigrant complex, 2 to 6 percent slopes-----	0	4,278	1,645	5,923	0.3
59	Donkehill very gravelly loam, 20 to 50 percent slopes-----	0	15,600	0	15,600	0.8
60	Donkehill-Zeebar complex, 8 to 50 percent slopes-----	0	14,025	1,240	15,265	0.8
61	Donkehill-Zeebar, low precipitation, complex, 20 to 35 percent slopes-----	0	1,653	5,372	7,025	0.4
62	Dumps, mine-----	0	1,007	876	1,883	*
63	Escarlo-Heathcoat complex, 4 to 30 percent slopes-----	0	0	9,211	9,211	0.5
64	Escarlo, high precipitation-Heathcoat complex, 4 to 30 percent slopes-----	0	0	3,825	3,825	0.2
65	Ezbin-Zeebar-Nielsen complex, 20 to 50 percent slopes-----	0	12,052	6,526	18,578	0.9
66	Fandow gravelly loam, 2 to 6 percent slopes--	0	72	8,193	8,265	0.4
67	Fandow-Arbus complex, 2 to 6 percent slopes--	0	0	10,466	10,466	0.5
68	Farvant-Badland-Gradco complex, 25 to 60 percent slopes-----	0	5,496	0	5,496	0.3
69	Farvant-Sactus-Dawtonia complex, 10 to 40 percent slopes-----	0	9,677	0	9,677	0.5

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Blaine County	Custer County	Lemhi County	Total	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
70	Fezip-Lemroi-Redfish complex, 0 to 2 percent slopes-----	0	1,157	1,777	2,934	0.1
71	Fezip-Redfish-Copperbasin complex, 0 to 3 percent slopes-----	565	3,726	710	5,001	0.3
72	Firebox gravelly loam, 2 to 10 percent slopes	0	7,828	3,170	10,998	0.6
73	Firebox extremely stony loam, 2 to 8 percent slopes-----	0	0	2,806	2,806	0.1
74	Frailton-Dawtonia complex, 15 to 50 percent slopes-----	0	4,964	0	4,964	0.3
75	Frailton-Gradco complex, 35 to 60 percent slopes-----	0	1,809	0	1,809	*
76	Friedman-Reck-Goldhill complex, 5 to 35 percent slopes-----	0	3,783	0	3,783	0.2
77	Gaciba-Cronks complex, 25 to 60 percent slopes-----	0	6,681	0	6,681	0.3
78	Gaciba-Dacont complex, 20 to 50 percent slopes-----	0	13,459	930	14,389	0.7
79	Gany gravelly loam, 30 to 60 percent slopes--	0	15,262	760	16,022	0.8
80	Geemore gravelly loam, 2 to 8 percent slopes	0	69	6,789	6,858	0.3
81	Germer-Dawtonia complex, 2 to 10 percent slopes-----	0	2,668	0	2,668	0.1
82	Goldaho-Zer complex, 5 to 35 percent slopes--	0	2,764	1,619	4,383	0.2
83	Goldhill-Zeebar complex, 8 to 50 percent slopes-----	0	10,232	0	10,232	0.5
84	Goosebury very gravelly loam, 2 to 8 percent slopes-----	0	4,705	812	5,517	0.3
85	Goosebury very gravelly loam, high precipitation, 5 to 20 percent slopes-----	0	8,537	0	8,537	0.4
86	Goosebury-Windcoat complex, 5 to 20 percent slopes-----	0	1,806	0	1,806	*
87	Gradco-Farvant complex, 15 to 30 percent slopes-----	0	7,409	0	7,409	0.4
88	Gradco-Farvant complex, 30 to 60 percent slopes-----	0	4,799	0	4,799	0.2
89	Hagenbarth-Brabas complex, 10 to 50 percent slopes-----	0	6,504	0	6,504	0.3
90	Heathcoat gravelly silt loam, 4 to 20 percent slopes-----	0	0	12,966	12,966	0.7
91	Heathcoat-Goldhill complex, 4 to 40 percent slopes-----	0	0	6,555	6,555	0.3
92	Heathcoat-Soen complex, 10 to 40 percent slopes-----	0	0	1,658	1,658	*
93	Howcan-Hagenbarth-Hutchley complex, 5 to 60 percent slopes-----	0	19,881	0	19,881	1.0
94	Hutchley-Nurkey complex, 10 to 40 percent slopes-----	0	4,466	0	4,466	0.2
95	Ike-Rock outcrop-Jimbee complex, 15 to 60 percent slopes-----	0	17,176	0	17,176	0.9
96	Inferno-Grouseville association, 15 to 50 percent slopes-----	0	2,713	0	2,713	0.1
97	Jimbee-Rock outcrop-Ike association, 30 to 75 percent slopes-----	0	9,197	0	9,197	0.5
98	Justesen-Drage complex, 2 to 15 percent slopes-----	0	3,400	18	3,418	0.2
99	Kadletz very gravelly loam, 2 to 6 percent slopes-----	0	39	6,344	6,383	0.3
100	Kehar gravelly loam, 8 to 20 percent slopes--	0	0	948	948	*
101	Kehar complex, 20 to 50 percent slopes-----	0	2,318	0	2,318	0.1
102	Ketchum very gravelly loam, 35 to 60 percent slopes-----	0	0	9,637	9,637	0.5
103	Ketchum complex, 20 to 50 percent slopes-----	0	1,574	12,724	14,298	0.7

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Blaine County	Custer County	Lemhi County	Total	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
104	Klug gravelly loam, low precipitation, 5 to 20 percent slopes-----	0	255	0	255	*
105	Klug-Gaciba-Dacont complex, 20 to 70 percent slopes-----	0	1,325	9,603	10,928	0.6
106	Klug-Povey complex, 30 to 60 percent slopes--	0	1,452	20,854	22,306	1.1
107	Klug, low precipitation-Povey complex, 25 to 60 percent slopes-----	0	7,529	0	7,529	0.4
108	Klug-Zeebar complex, 20 to 50 percent slopes	0	6,671	0	6,671	0.3
109	Lacrol-Friedman association, 15 to 35 percent slopes-----	0	0	2,380	2,380	0.1
110	Lag very cobbly loam, 20 to 40 percent slopes	0	6,495	7,834	14,329	0.7
111	Lag very cobbly loam, 40 to 70 percent slopes	0	6,175	0	6,175	0.3
112	Lag-Klug association, 50 to 70 percent slopes	0	1,005	7,795	8,800	0.4
113	Langer gravelly sandy loam, 10 to 40 percent slopes-----	0	2,605	0	2,605	0.1
114	Leadore gravelly loam, 2 to 6 percent slopes	0	0	18,090	18,090	0.9
115	Leatherman-Arbus complex, 2 to 6 percent slopes-----	0	1,768	0	1,768	*
116	Leatherman-Bluedome complex, 2 to 8 percent slopes-----	0	573	0	573	*
117	Lemco-Friedman complex, 20 to 50 percent slopes-----	0	3,687	6,003	9,690	0.5
118	Lemhi-Copperbasin-Lilylake complex, 0 to 2 percent slopes-----	0	0	1,557	1,557	*
119	Lemroi-Leecreek complex, 0 to 3 percent slopes-----	0	2,105	4,180	6,285	0.3
120	Lemroi-Leecreek-Grandjean complex, 0 to 3 percent slopes-----	0	1,627	101	1,728	*
121	Lesbut gravelly loam, 2 to 4 percent slopes--	0	804	0	804	*
122	Lilylake-Grandjean complex, 0 to 2 percent slopes-----	475	644	2,010	3,129	0.2
123	Mahaffey-Copperbasin-Wiskisprings complex, 0 to 2 percent slopes-----	0	0	927	927	*
124	Meegernot gravelly loam, 15 to 40 percent slopes-----	0	2,040	0	2,040	0.1
125	Meegero-Zeale complex, 15 to 45 percent slopes-----	0	0	5,050	5,050	0.3
126	Millhi silt loam, 2 to 4 percent slopes-----	0	0	484	484	*
127	Millhi gravelly silt loam, 5 to 15 percent slopes-----	0	252	4,445	4,697	0.2
128	Millhi complex, 10 to 30 percent slopes-----	0	0	12,846	12,846	0.7
129	Millhi-Badland complex, 5 to 25 percent slopes-----	0	0	10,173	10,173	0.5
130	Millhi-Lacrol association, 15 to 35 percent slopes-----	0	0	15,112	15,112	0.8
131	Misfire-Pattee-Dawtonia complex, 20 to 45 percent slopes-----	0	0	1,030	1,030	*
132	Mitring-Holinrock complex, 15 to 40 percent slopes-----	0	9,834	0	9,834	0.5
133	Mogg-Dawtonia association, 20 to 40 percent slopes-----	0	7,128	2,332	9,460	0.5
134	Mooretown-Blackfoot-Borah complex, 0 to 2 percent slopes-----	0	4,767	1,452	6,219	0.3
135	Mooretown-Borco complex, 0 to 2 percent slopes-----	0	4,942	858	5,800	0.3
136	Morphey silt loam, 1 to 4 percent slopes-----	0	0	2,167	2,167	0.1
137	Morphey silt loam, 4 to 8 percent slopes-----	0	0	1,130	1,130	*
138	Mountainboy gravelly silt loam, 2 to 8 percent slopes-----	0	0	16,022	16,022	0.8
139	Mountainboy gravelly silt loam, high precipitation, 2 to 6 percent slopes-----	0	0	2,056	2,056	0.1

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Blaine County	Custer County	Lemhi County	Total	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
140	Nicholia-Goosebury complex, 2 to 35 percent slopes-----	0	3,987	0	3,987	0.2
141	Nielsen-Gaciba association, 20 to 50 percent slopes-----	0	4,462	3,607	8,069	0.4
142	Nitchly-Skibo-Rock outcrop complex, 20 to 50 percent slopes-----	0	25,449	0	25,449	1.3
143	Nurkey-Zeebar-Hutchley complex, 20 to 50 percent slopes-----	0	10,140	0	10,140	0.5
144	Nurkey-Dacont association, 5 to 30 percent slopes-----	0	5,111	0	5,111	0.3
145	Nurkey-Dacont association, 30 to 60 percent slopes-----	0	10,436	0	10,436	0.5
146	Nurkey-Dawtonia association, 20 to 55 percent slopes-----	0	4,238	0	4,238	0.2
147	Oxhead gravelly loam, 2 to 8 percent slopes--	0	0	9,410	9,410	0.5
148	Packham gravelly loam, 1 to 4 percent slopes	0	0	1,454	1,454	*
149	Packham-Perreau complex, 5 to 15 percent slopes-----	0	0	2,230	2,230	0.1
150	Packmo-Leadore complex, 1 to 4 percent slopes	0	1,608	2,250	3,858	0.2
151	Packmo-Whiteknob complex, 1 to 4 percent slopes-----	0	6,900	550	7,450	0.4
152	Pahsimeroi gravelly loam, 2 to 6 percent slopes-----	0	4,132	21,662	25,794	1.3
153	Pahsimeroi gravelly loam, 10 to 20 percent slopes-----	0	1,147	1,664	2,811	0.1
154	Pahsimeroi extremely gravelly loam, 2 to 10 percent slopes-----	0	1,709	10,785	12,494	0.6
155	Paint complex, 2 to 8 percent slopes-----	0	911	9,827	10,738	0.5
156	Paint-Bluedome complex, 2 to 10 percent slopes-----	0	3,422	0	3,422	0.2
157	Paint-Whitecloud complex, 2 to 8 percent slopes-----	0	0	2,680	2,680	0.1
158	Parkay-Donkehill complex, 20 to 50 percent slopes-----	0	17,109	0	17,109	0.9
159	Parkay-Nurkey complex, 2 to 15 percent slopes	0	469	0	469	*
160	Parkay-Nurkey complex, 20 to 50 percent slopes-----	0	12,913	16	12,929	0.7
161	Parkay-Zeebar complex, 5 to 20 percent slopes	0	8,645	5,882	14,527	0.7
162	Parkay-Friedman association, 20 to 50 percent slopes-----	0	6,396	204	6,600	0.3
163	Pattee-Perreau complex, 1 to 4 percent slopes	0	0	2,398	2,398	0.1
164	Pattee-Perreau complex, 4 to 8 percent slopes	0	0	1,867	1,867	*
165	Pedoli-Dawtonia complex, 1 to 4 percent slopes-----	0	1,771	52	1,823	*
166	Pedoli-Whiteknob complex, 2 to 6 percent slopes-----	0	4,434	127	4,561	0.2
167	Penagul-Rosebriar complex, 20 to 60 percent slopes-----	0	4,065	0	4,065	0.2
168	Perreau silt loam, 1 to 4 percent slopes-----	0	0	725	725	*
169	Perreau silt loam, 4 to 8 percent slopes-----	0	0	768	768	*
170	Perreau silt loam, 8 to 20 percent slopes-----	0	0	9,105	9,105	0.5
171	Perreau-Dawtonia complex, 4 to 8 percent slopes-----	0	0	1,161	1,161	*
172	Perreau-Dawtonia complex, 20 to 45 percent slopes-----	0	0	625	625	*
173	Perreau-Pattee complex, 15 to 25 percent slopes-----	0	0	196	196	*
174	Pits, gravel-----	0	58	6	64	*
175	Pits, mine-----	0	0	96	96	*
176	Povey very gravelly loam, 15 to 45 percent slopes-----	2,178	2,172	37	4,387	0.2

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Blaine County	Custer County	Lemhi County	Total	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
177	Povey-Klug, cool complex, 25 to 60 percent slopes-----	0	1,013	18,261	19,274	1.0
178	Reck-Threedot complex, 5 to 35 percent slopes	0	2,453	0	2,453	0.1
179	Redfish-Fezip-Lilylake complex, 0 to 4 percent slopes-----	492	3,607	703	4,802	0.2
180	Resoot-Friedman complex, 5 to 35 percent slopes-----	0	5,086	5,422	10,508	0.5
181	Resoot-Friedman complex, 20 to 50 percent slopes-----	0	4,582	16,252	20,834	1.1
182	Ringle gravelly loam, 2 to 8 percent slopes--	0	26,895	2,058	28,953	1.5
183	Rock outcrop and Rubble land, very steep----	0	7,582	6,569	14,151	0.7
184	Sanfelipe complex, 5 to 15 percent slopes----	0	6,095	0	6,095	0.3
185	Shenon loam, 1 to 4 percent slopes-----	0	0	527	527	*
186	Shenon loam, 5 to 15 percent slopes-----	0	246	1,835	2,081	0.1
187	Shenon-Perreau complex, 4 to 8 percent slopes	0	0	1,743	1,743	*
188	Shenon-Perreau complex, 4 to 20 percent slopes-----	0	0	623	623	*
189	Simeroi gravelly loam, 2 to 6 percent slopes	0	5,668	7,240	12,908	0.7
190	Simeroi gravelly loam, 6 to 15 percent slopes	0	3,978	2,652	6,630	0.3
191	Simeroi complex, 2 to 8 percent slopes-----	0	6,795	0	6,795	0.3
192	Simeroi-Paint-Sanfelipe complex, 5 to 20 percent slopes-----	0	4,528	0	4,528	0.2
193	Simeroi-Whitecloud complex, 2 to 8 percent slopes-----	0	250	3,259	3,509	0.2
194	Skibo stony loam, 20 to 50 percent slopes----	0	3,665	1,035	4,700	0.2
195	Smout-Cowbone complex, 0 to 2 percent slopes	0	0	2,153	2,153	0.1
196	Smout-Yearian complex, 0 to 2 percent slopes	0	1,360	0	1,360	*
197	Snowslide gravelly loam, dry, 1 to 10 percent slopes-----	0	10,761	3,053	13,814	0.7
198	Snowslide very gravelly loam, 1 to 6 percent slopes-----	0	2,922	0	2,922	0.1
199	Snowslide very gravelly loam, dry, 20 to 40 percent slopes-----	0	2,992	100	3,092	0.2
200	Snowslide-Badland-Perreau complex, 5 to 35 percent slopes-----	0	0	2,021	2,021	0.1
201	Snowslide-Farvant complex, 10 to 40 percent slopes-----	0	4,513	283	4,796	0.2
202	Snowslide-Zer-Snowslide complex, 5 to 35 percent slopes-----	0	4,024	2,724	6,748	0.3
203	Soen gravelly loam, 0 to 4 percent slopes----	0	227	55	282	*
204	Soen-Justesen-Howcan complex, 4 to 35 percent slopes-----	0	1,207	0	1,207	*
205	Sparmo silt loam, 1 to 5 percent slopes-----	0	2,526	4,869	7,395	0.4
206	Sparmo-Zer complex, 1 to 5 percent slopes----	0	11,111	8,856	19,967	1.0
207	Sparmo-Zer complex, 6 to 12 percent slopes----	0	0	108	108	*
208	Sprabat sandy loam, 0 to 4 percent slopes----	0	464	0	464	*
209	Sprabat-Snowslide complex, 1 to 8 percent slopes-----	0	6,971	324	7,295	0.4
210	Struggle complex, 5 to 35 percent slopes-----	763	640	3,591	4,994	0.3
211	Surrett gravelly loam, 2 to 8 percent slopes	0	0	4,275	4,275	0.2
212	Surrett-Nurkey complex, 2 to 10 percent slopes-----	0	1,487	0	1,487	*
213	Swahlen-Packham complex, 2 to 8 percent slopes-----	0	0	1,650	1,650	*
214	Swahlen-Yearian complex, 0 to 4 percent slopes-----	0	0	911	911	*
215	Thosand-Chillybu complex, 0 to 2 percent slopes-----	0	3,964	53	4,017	0.2
216	Thosand-Sancrane complex, 0 to 2 percent slopes-----	0	2,006	2,090	4,096	0.2
217	Thosand-Wiskisprings complex, 0 to 2 percent slopes-----	0	934	1,250	2,184	0.1

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Blaine County	Custer County	Lemhi County	Total	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
218	Threedot loam, 10 to 30 percent slopes-----	0	0	6,139	6,139	0.3
219	Threedot gravelly loam, 5 to 30 percent slopes-----	0	3,903	0	3,903	0.2
220	Threedot complex, 20 to 50 percent slopes----	0	1,606	0	1,606	*
221	Typic Cryaquepts, 1 to 3 percent slopes-----	0	398	1,650	2,048	0.1
222	Ureal-Zeebar-Dacont complex, 20 to 50 percent slopes-----	0	16,099	2,578	18,677	1.0
223	Venum-Cronks complex, 20 to 50 percent slopes	0	23,944	10,741	34,685	1.8
224	Venum-Rock outcrop complex, 25 to 55 percent slopes-----	0	5,714	0	5,714	0.3
225	Venum-Custco association, 20 to 50 percent slopes-----	0	1,363	2,046	3,409	0.2
226	Whitecloud gravelly loam, cold, 2 to 6 percent slopes-----	0	5,140	0	5,140	0.3
227	Whitecloud gravelly loam, low precipitation, 2 to 8 percent slopes-----	0	1,138	0	1,138	*
228	Whitecloud-Sanfelipe-Fandow complex, 5 to 15 percent slopes-----	0	1,994	0	1,994	0.1
229	Whitecloud-Simeroi complex, 2 to 8 percent slopes-----	0	26,070	4,408	30,478	1.6
230	Whiteknob gravelly loam, 2 to 8 percent slopes-----	0	1,987	18,806	20,793	1.1
231	Whiteknob-Leadore complex, 2 to 8 percent slopes-----	0	613	3,700	4,313	0.2
232	Whiteknob-Zer complex, 2 to 6 percent slopes	0	5,208	207	5,415	0.3
233	Wiggleton gravelly silt loam, 2 to 10 percent slopes-----	0	268	13,442	13,710	0.7
234	Wiggleton-Copperbasin complex, 0 to 4 percent slopes-----	231	1,791	218	2,240	0.1
235	Wimpey-Zeph-Ajax complex, 0 to 2 percent slopes-----	0	0	3,400	3,400	0.2
236	Windcoat gravelly silt loam, 2 to 6 percent slopes-----	0	0	4,186	4,186	0.2
237	Windcoat-Fandow complex, 5 to 20 percent slopes-----	0	6,376	0	6,376	0.3
238	Wiskisprings-Biglost complex, 0 to 3 percent slopes-----	0	5,790	2,090	7,880	0.4
239	Wiskisprings-Biglost-Copperbasin complex, 0 to 3 percent slopes-----	0	4,404	2,095	6,499	0.3
240	Xeric Torrifluvents, 1 to 3 percent slopes---	0	498	0	498	*
241	Yearian very stony loam, 1 to 4 percent slopes-----	0	128	3,103	3,231	0.2
242	Yearian very stony loam, 4 to 8 percent slopes-----	0	0	250	250	*
243	Zeale-Meegero complex, 4 to 20 percent slopes	0	16,633	27	16,660	0.9
244	Zeale-Meegero complex, 20 to 40 percent slopes-----	0	20,895	693	21,588	1.1
245	Zeale-Zeelnot complex, 15 to 35 percent slopes-----	0	0	572	572	*
246	Zeebar-Nielsen-Povey complex, 20 to 70 percent slopes-----	0	10,594	8,588	19,182	1.0
247	Zeebar-Parkay complex, 20 to 50 percent slopes-----	0	644	0	644	*
248	Zeebar-Resoot complex, 20 to 50 percent slopes-----	0	4,063	742	4,805	0.2
249	Zeegee-Ajax complex, 0 to 2 percent slopes---	0	0	3,921	3,921	0.2
250	Zeelnot gravelly loam, 15 to 40 percent slopes-----	0	836	3,564	4,400	0.2
251	Zeelnot gravelly loam, low precipitation, 15 to 40 percent slopes-----	0	5,064	0	5,064	0.3

See footnote at end of table.

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Blaine County	Custer County	Lemhi County	Total	
					Area	Extent
		Acres	Acres	Acres	Acres	Pct
252	Zeelnot-Meegernot-Adek association, 5 to 40 percent slopes-----	0	21,132	0	21,132	1.1
253	Zer gravelly loam, 20 to 50 percent slopes---	0	5,650	1,544	7,194	0.4
254	Zer gravelly loam, cold, 20 to 40 percent slopes-----	0	0	5,262	5,262	0.3
255	Zer gravelly loam, saline, 1 to 4 percent slopes-----	0	1,936	205	2,141	0.1
256	Zer gravelly loam, warm, 2 to 15 percent slopes-----	0	1,455	0	1,455	*
257	Zer very gravelly silt loam, saline, 5 to 10 percent slopes-----	0	448	199	647	*
258	Zer very cobbly loam, 20 to 50 percent slopes	0	0	5,767	5,767	0.3
259	Zer-Snowslide complex, 1 to 4 percent slopes	0	2,157	4,985	7,142	0.4
260	Zer-Snowslide complex, 5 to 25 percent slopes	0	1,761	1,871	3,632	0.2
261	Zer-Whiteknob complex, 1 to 4 percent slopes	0	1,082	0	1,082	*
262	Simeroi very gravelly silt loam, 30 to 60 percent slopes-----	0	0	2,349	2,349	0.1
263	Water-----	40	3,820	2,520	6,380	0.3
	Total-----	9,000	1,088,720	862,000	1,959,720	100.0

* Less than 0.1 percent.

Table 5.--Land Capability and Yields per Acre of Crops and Pasture

(The "N" column indicates nonirrigated areas; the "I" columns indicate irrigated areas.
Yields are those that can be expected under a high level of management. 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		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
1: Alpinepeak-----	6s	6s	---	---	---	---	2.00
2: Aquents-----	8	---	---	---	---	---	---
Riverwash-----	8	---	---	---	---	---	---
3: Arbus-----	6s	---	---	---	---	---	---
4: Arco-----	4c	3w	4.00	---	4.00	---	10.00
5: Badland-----	8	---	---	---	---	---	---
Millhi-----	7e	---	---	---	---	---	---
6: Bartonflat-----	6e	4e	3.00	---	---	---	8.00
7: Bartonflat-----	6s	6e	3.00	---	---	---	8.00
8: Bartonhill-----	6s	4e	3.00	---	---	---	8.00
Whitecloud-----	6s	4e	4.00	---	---	---	8.00
9: Bayhorse, north----	7e	---	---	---	---	---	---
Bayhorse, south----	7e	---	---	---	---	---	---
10: Bayhorse-----	6e	---	---	---	---	---	---
Dawtonia-----	6e	---	---	---	---	---	---
11: Bigflat-----	6e	3e	3.00	65.00	---	---	4.00
Dacont-----	6e	4e	---	---	---	---	---
12: Biglost-----	6s	6s	---	---	---	---	---
Copperbasin-----	6c	6c	---	---	---	---	3.50
13: Bigrant, very poorly drained----	5w	---	---	---	---	---	---
Bigrant, poorly drained-----	4w	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
14:							
Bigrant-----	4w	4w	---	---	---	---	---
Thosand-----	5w	5w	---	---	---	---	---
Dickeypeak-----	6s	6s	---	---	2.50	---	4.00
15:							
Blackfoot-----	6c	3c	5.00	90.00	---	---	12.00
16:							
Blackfoot-----	6c	3c	5.00	90.00	---	---	12.00
Borco-----	6s	4s	---	70.00	---	---	7.00
17:							
Bluedome-----	6e	---	---	---	---	---	---
18:							
Bock-----	6e	3e	4.00	70.00	---	---	10.00
Breitenbach-----	6e	3e	4.00	100.00	---	---	---
19:							
Bock-----	6e	3c	4.00	75.00	---	---	10.00
Bromaglin-----	6s	4e	---	---	---	---	---
20:							
Bockston-----	6e	---	---	---	---	---	---
21:							
Brabas-----	7e	---	---	---	---	---	---
Heathcoat-----	6s	---	---	---	---	---	---
22:							
Breitenbach-----	6c	3c	4.00	100.00	---	---	---
23:							
Breitenbach-----	6e	3e	4.00	100.00	---	---	---
24:							
Breitenbach-----	6e	3e	4.00	100.00	---	---	---
25:							
Bunting-----	4c	---	---	---	---	---	---
26:							
Bunting-----	4c	---	---	---	---	---	---
27:							
Bunting-----	4c	---	---	---	---	---	---
Moffspring-----	4c	---	---	---	---	---	---
28:							
Bursteadt-----	3w	3w	---	---	4.00	---	7.00
Tohobit-----	4w	4w	---	---	4.00	---	7.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
29:							
Busterback-----	6s	6s	---	---	---	---	---
Wiggleton-----	6s	6s	---	---	---	---	---
30:							
Calcids-----	7e	---	---	---	---	---	---
Badland-----	8	---	---	---	---	---	---
Xerolls-----	6e	---	---	---	---	---	---
31:							
Calcids-----	7e	---	---	---	---	---	---
Rubble land-----	8	---	---	---	---	---	---
Rock outcrop-----	8	---	---	---	---	---	---
32:							
Castlepeak-----	7s	6s	---	---	---	---	---
Yankeefork-----	6s	6s	---	---	---	---	---
33:							
Chamberlain-----	6s	6e	---	---	---	---	---
34:							
Coalkiln-----	7e	---	---	---	---	---	---
Zeelnot-----	7e	---	---	---	---	---	---
35:							
Copperbasin-----	6c	6c	---	---	---	---	3.50
Redfish-----	5w	5w	---	---	---	---	---
36:							
Copperbasin-----	6c	6c	---	---	---	---	3.50
Redfish-----	5w	5w	---	---	---	---	---
37:							
Cowbone-----	5w	5w	---	---	3.00	---	5.00
Tohobit-----	4w	4w	---	---	4.00	---	7.00
38:							
Cronks-----	6e	---	---	---	---	---	---
Challis-----	6e	---	---	---	---	---	---
39:							
Cronks-----	7s	---	---	---	---	---	---
Venum-----	6e	---	---	---	---	---	---
40:							
Cryolls-----	7e	---	---	---	---	---	---
Rubble land-----	8	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
41:							
Cryolls-----	7e	---	---	---	---	---	---
Rubble land-----	8	---	---	---	---	---	---
Rock outcrop-----	8	---	---	---	---	---	---
42:							
Cryepts-----	7e	---	---	---	---	---	---
Rubble land-----	8	---	---	---	---	---	---
Rock outcrop-----	8	---	---	---	---	---	---
43:							
Custco-----	6e	4e	4.00	---	4.00	---	10.00
44:							
Dacont-----	6e	---	---	---	---	---	---
Custco-----	6e	---	---	---	---	---	---
45:							
Dacont-----	6e	---	---	---	---	---	---
Resoot-----	6e	---	---	---	---	---	---
Nielsen-----	7e	---	---	---	---	---	---
46:							
Dacont-----	6e	---	---	---	---	---	---
Zeebar-----	6e	---	---	---	---	---	---
47:							
Darlington-----	6c	4s	4.00	80.00	---	---	---
Lesbut-----	6s	4s	3.00	70.00	---	---	5.00
48:							
Dawtonia-----	6e	3e	4.50	90.00	4.50	120.00	8.00
49:							
Dawtonia-----	6e	---	---	---	---	---	---
Dawtonia, cold-----	7e	---	---	---	---	---	---
50:							
Dawtonia, cold-----	7e	---	---	---	---	---	---
Dawtonia-----	6e	3e	4.50	---	4.50	---	8.00
51:							
Dawtonia-----	7e	---	---	---	---	---	---
Frailton-----	7e	---	---	---	---	---	---
52:							
Dawtonia-----	6e	---	---	---	---	---	---
Kehar-----	6e	---	---	---	---	---	---
Soen-----	4e	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
53:							
Dawtonia-----	7e	---	---	---	---	---	---
Rock outcrop-----	8	---	---	---	---	---	---
54:							
Dawtonia-----	7e	---	---	---	---	---	---
Custco-----	6e	---	---	---	---	---	---
55:							
Dawtonia-----	7e	---	---	---	---	---	---
Dacont-----	6e	---	---	---	---	---	---
56:							
Derwell-----	6e	4e	4.00	---	---	---	10.00
Whiteknob-----	6s	4s	4.00	100.00	---	90.00	8.00
57:							
Derwell-----	6e	---	---	---	---	---	---
Zer-----	6e	---	---	---	---	---	---
Packmo-----	6e	---	---	---	---	---	---
58:							
Dickeypeak-----	6s	4s	---	---	---	---	4.00
Bigrant-----	4w	---	---	---	---	---	---
59:							
Donkehill-----	6e	---	---	---	---	---	---
60:							
Donkehill-----	6e	---	---	---	---	---	---
Zeebar-----	6e	---	---	---	---	---	---
61:							
Donkehill-----	6e	---	---	---	---	---	---
Zeebar-----	6e	---	---	---	---	---	---
62:							
Dumps, mine-----	8	---	---	---	---	---	---
63:							
Escarlo-----	4e	---	---	---	---	---	---
Heathcoat-----	6s	---	---	---	---	---	---
64:							
Escarlo-----	4e	---	---	---	---	---	---
Heathcoat-----	6s	---	---	---	---	---	---
65:							
Ezbin-----	6e	---	---	---	---	---	---
Zeebar-----	6e	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
65: Nielsen-----	7e	---	---	---	---	---	---
66: Fandow-----	7s	---	---	---	---	---	---
67: Fandow-----	7s	---	---	---	---	---	---
Arbus-----	6s	---	---	---	---	---	---
68: Farvant-----	7s	---	---	---	---	---	---
Badland-----	8	---	---	---	---	---	---
Gradco-----	6e	---	---	---	---	---	---
69: Farvant-----	7s	---	---	---	---	---	---
Sactus-----	7s	---	---	---	---	---	---
Dawtonia-----	7e	---	---	---	---	---	---
70: Fezip-----	5w	5w	---	---	---	---	5.00
Lemroi-----	4w	4w	---	---	---	---	4.50
Redfish-----	5w	5w	---	---	---	---	---
71: Fezip-----	5w	5w	---	---	---	---	5.00
Redfish-----	5w	5w	---	---	---	---	---
Copperbasin-----	6c	6c	---	---	---	---	3.50
72: Firebox-----	6s	---	---	---	---	---	---
73: Firebox-----	7s	---	---	---	---	---	---
74: Frailton-----	7e	---	---	---	---	---	---
Dawtonia-----	6e	---	---	---	---	---	---
75: Frailton-----	7e	---	---	---	---	---	---
Gradco-----	7e	---	---	---	---	---	---
76: Friedman-----	4e	---	---	---	---	---	---
Reck-----	6e	---	---	---	---	---	---
Goldhill-----	6e	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
77:							
Gaciba-----	7e	---	---	---	---	---	---
Cronks-----	7e	---	---	---	---	---	---
78:							
Gaciba-----	7e	---	---	---	---	---	---
Dacont-----	6e	---	---	---	---	---	---
79:							
Gany-----	7e	---	---	---	---	---	---
80:							
Geomore-----	6s	---	---	---	---	---	---
81:							
Germer-----	6e	4e	---	70.00	4.00	---	---
Dawtonia-----	6e	4e	---	70.00	4.00	---	---
82:							
Goldaho-----	6e	---	---	---	---	---	---
Zer-----	6e	---	---	---	---	---	---
83:							
Goldhill-----	6e	---	---	---	---	---	---
Zeebar-----	6e	---	---	---	---	---	---
84:							
Goosebury-----	6e	---	---	---	---	---	---
85:							
Goosebury-----	6e	---	---	---	---	---	---
86:							
Goosebury-----	6e	---	---	---	---	---	---
Windcoat-----	6e	---	---	---	---	---	---
87:							
Gradco-----	6e	---	---	---	---	---	---
Farvant-----	7s	---	---	---	---	---	---
88:							
Gradco-----	7e	---	---	---	---	---	---
Farvant-----	7s	---	---	---	---	---	---
89:							
Hagenbarth-----	7e	---	---	---	---	---	---
Brabas-----	7e	---	---	---	---	---	---
90:							
Heathcoat-----	6s	---	---	---	---	---	---
91:							
Heathcoat-----	6s	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
91: Goldhill-----	6e	---	---	---	---	---	---
92: Heathcoat-----	6s	---	---	---	---	---	---
Soen-----	6e	---	---	---	---	---	---
93: Howcan-----	7e	---	---	---	---	---	---
Hagenbarth-----	6e	---	---	---	---	---	---
Hutchley-----	6e	---	---	---	---	---	---
94: Hutchley-----	6e	---	---	---	---	---	---
Nurkey-----	6e	---	---	---	---	---	---
95: Ike-----	6e	---	---	---	---	---	---
Rock outcrop-----	8	---	---	---	---	---	---
Jimbee-----	7e	---	---	---	---	---	---
96: Inferno-----	6e	---	---	---	---	---	---
Grouseville-----	7e	---	---	---	---	---	---
97: Jimbee-----	7e	---	---	---	---	---	---
Rock outcrop-----	8	---	---	---	---	---	---
Ike-----	7e	---	---	---	---	---	---
98: Justesen-----	3e	---	---	---	---	---	---
Drage-----	3e	---	---	---	---	---	---
99: Kadletz-----	7s	4s	3.50	70.00	---	100.00	8.00
100: Kehar-----	6e	---	---	---	---	---	---
101: Kehar-----	6e	---	---	---	---	---	---
Kehar, eroded-----	7e	---	---	---	---	---	---
102: Ketchum-----	7e	---	---	---	---	---	---
103: Ketchum, cold-----	6e	---	---	---	---	---	---
Ketchum-----	6e	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
104: Klug-----	6e	---	---	---	---	---	---
105: Klug-----	7e	---	---	---	---	---	---
Gaciba-----	7e	---	---	---	---	---	---
Dacont-----	6e	---	---	---	---	---	---
106: Klug-----	7e	---	---	---	---	---	---
Povey-----	7e	---	---	---	---	---	---
107: Klug-----	7e	---	---	---	---	---	---
Povey-----	7e	---	---	---	---	---	---
108: Klug-----	7e	---	---	---	---	---	---
Zeebar-----	6e	---	---	---	---	---	---
109: Lacrol-----	6e	---	---	---	---	---	---
Friedman-----	4e	---	---	---	---	---	---
110: Lag-----	6e	---	---	---	---	---	---
111: Lag-----	7e	---	---	---	---	---	---
112: Lag-----	7e	---	---	---	---	---	---
Klug-----	7e	---	---	---	---	---	---
113: Langer-----	6e	---	---	---	---	---	---
114: Leadore-----	6e	4e	3.50	70.00	---	100.00	8.00
115: Leatherman-----	7s	---	---	---	---	---	---
Arbus-----	6s	---	---	---	---	---	---
116: Leatherman-----	7s	---	---	---	---	---	---
Bluedome-----	6e	---	---	---	---	---	---
117: Lemco-----	6e	---	---	---	---	---	---
Friedman-----	6e	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
118:							
Lemhi-----	4w	4w	---	---	2.50	---	4.50
Copperbasin-----	4s	4s	---	---	---	---	4.50
Lilylake-----	5w	5w	---	---	---	---	---
119:							
Lemroi-----	4w	4w	---	---	2.50	---	4.50
Leecreek-----	4w	4w	---	---	2.50	---	4.50
120:							
Lemroi-----	4w	4w	---	---	2.50	---	4.50
Leecreek-----	4w	4w	---	---	2.50	---	4.50
Grandjean-----	5w	5w	---	---	---	---	---
121:							
Lesbut-----	6s	4s	3.00	70.00	---	---	5.00
122:							
Lilylake-----	5w	5w	---	---	---	---	---
Grandjean-----	5w	5w	---	---	---	---	---
123:							
Mahaffey-----	4s	4s	---	---	---	---	4.50
Copperbasin-----	4s	4s	---	---	---	---	4.50
Wiskisprings-----	5w	5w	---	---	---	---	4.00
124:							
Meegernot-----	6e	---	---	---	---	---	---
125:							
Meegero-----	6e	---	---	---	---	---	---
Zeale-----	6e	---	---	---	---	---	---
126:							
Millhi-----	6e	---	---	---	---	---	---
127:							
Millhi-----	6e	---	---	---	---	---	---
128:							
Millhi-----	6e	---	---	---	---	---	---
Millhi, eroded-----	7e	---	---	---	---	---	---
129:							
Millhi-----	6e	---	---	---	---	---	---
Badland-----	8	---	---	---	---	---	---
130:							
Millhi-----	6e	---	---	---	---	---	---
Lacrol-----	6e	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
131:							
Misfire-----	6e	---	---	---	---	---	---
Pattee-----	6e	---	---	---	---	---	---
Dawtonia-----	7e	---	---	---	---	---	---
132:							
Mitring-----	7e	---	---	---	---	---	---
Holinrock-----	6e	---	---	---	---	---	---
133:							
Mogg-----	7e	---	---	---	---	---	---
Dawtonia-----	7e	---	---	---	---	---	---
134:							
Mooretown-----	4w	---	---	---	---	---	---
Blackfoot-----	3w	2w	4.50	75.00	---	---	10.00
Borah-----	5w	5w	---	---	4.00	---	10.00
135:							
Mooretown-----	6c	3c	---	75.00	---	---	8.00
Borco-----	6s	4s	---	70.00	---	---	7.00
136:							
Morphey-----	3e	3e	5.00	---	---	---	---
137:							
Morphey-----	3e	3e	5.00	---	---	---	---
138:							
Mountainboy-----	6s	---	---	---	---	---	---
139:							
Mountainboy-----	6s	---	---	---	---	---	---
140:							
Nicholia-----	6s	---	---	---	---	---	---
Goosebury-----	6e	---	---	---	---	---	---
141:							
Nielsen-----	7e	---	---	---	---	---	---
Gaciba-----	7e	---	---	---	---	---	---
142:							
Nitchly-----	7e	---	---	---	---	---	---
Skibo-----	6e	---	---	---	---	---	---
Rock outcrop-----	8	---	---	---	---	---	---
143:							
Nurkey-----	6e	---	---	---	---	---	---
Zeebar-----	6e	---	---	---	---	---	---
Hutchley-----	6e	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
144:							
Nurkey-----	6e	---	---	---	---	---	---
Dacont-----	6e	---	---	---	---	---	---
145:							
Nurkey-----	7e	---	---	---	---	---	---
Dacont-----	7e	---	---	---	---	---	---
146:							
Nurkey-----	6e	---	---	---	---	---	---
Dawtonia-----	7e	---	---	---	---	---	---
147:							
Oxhead-----	6e	---	---	---	---	---	---
148:							
Packham-----	6s	4s	3.00	45.00	---	---	7.50
149:							
Packham-----	6s	---	---	---	---	---	---
Perreau-----	6e	---	---	---	---	---	---
150:							
Packmo-----	6e	4e	---	---	---	---	3.00
Leadore-----	6e	4e	3.50	---	---	---	8.00
151:							
Packmo-----	6e	4e	---	---	---	---	3.00
Whiteknob-----	6s	4s	4.00	---	---	---	8.00
152:							
Pahsimeroi-----	6s	---	---	---	---	---	---
153:							
Pahsimeroi-----	6e	---	---	---	---	---	---
154:							
Pahsimeroi-----	6s	---	---	---	---	---	---
155:							
Paint-----	7e	---	---	---	---	---	---
Paint, cold-----	7e	---	---	---	---	---	---
156:							
Paint-----	7e	---	---	---	---	---	---
Bluedome-----	6e	---	---	---	---	---	---
157:							
Paint-----	7e	---	---	---	---	---	---
Whitecloud-----	6s	---	---	---	---	---	---
158:							
Parkay-----	6e	---	---	---	---	---	---
Donkehill-----	6e	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
159:							
Parkay-----	4e	---	---	---	---	---	---
Nurkey-----	6e	---	---	---	---	---	---
160:							
Parkay-----	7e	---	---	---	---	---	---
Nurkey-----	6e	---	---	---	---	---	---
161:							
Parkay-----	6e	---	---	---	---	---	---
Zeebar-----	6e	---	---	---	---	---	---
162:							
Parkay-----	6e	---	---	---	---	---	---
Friedman-----	6e	---	---	---	---	---	---
163:							
Pattee-----	6e	3e	4.50	90.00	---	110.00	11.00
Perreau-----	6c	3e	5.50	85.00	---	120.00	14.00
164:							
Pattee-----	6e	3e	4.50	90.00	---	110.00	11.00
Perreau-----	6e	3e	5.50	85.00	---	120.00	14.00
165:							
Pedoli-----	6e	4e	3.50	70.00	3.00	---	---
Dawtonia-----	6e	3e	4.50	90.00	4.50	120.00	8.00
166:							
Pedoli-----	6e	4e	3.50	70.00	3.00	---	---
Whiteknob-----	6s	4s	4.00	100.00	---	90.00	8.00
167:							
Penagul-----	7e	---	---	---	---	---	---
Rosebriar-----	7e	---	---	---	---	---	---
168:							
Perreau-----	6c	3e	5.50	85.00	---	120.00	14.00
169:							
Perreau-----	6e	3e	5.50	85.00	---	120.00	14.00
170:							
Perreau-----	6e	---	---	---	---	---	---
171:							
Perreau-----	6e	3e	5.50	85.00	---	120.00	14.00
Dawtonia-----	6e	3e	4.50	90.00	---	120.00	8.00
172:							
Perreau-----	6e	---	---	---	---	---	---
Dawtonia-----	7e	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
173:							
Perreau-----	6e	---	---	---	---	---	---
Pattee-----	6e	---	---	---	---	---	---
174:							
Pits, gravel-----	8	---	---	---	---	---	---
175:							
Pits, mine-----	8	---	---	---	---	---	---
176:							
Povey-----	6e	---	---	---	---	---	---
177:							
Povey-----	7e	---	---	---	---	---	---
Klug-----	7e	---	---	---	---	---	---
178:							
Reck-----	6e	---	---	---	---	---	---
Threedot-----	6e	---	---	---	---	---	---
179:							
Redfish-----	5w	5w	---	---	---	---	---
Fezip-----	5w	5w	---	---	---	---	5.00
Lilylake-----	5w	5w	---	---	---	---	---
180:							
Resoot-----	6e	---	---	---	---	---	---
Friedman-----	4e	---	---	---	---	---	---
181:							
Resoot-----	6e	---	---	---	---	---	---
Friedman-----	6e	---	---	---	---	---	---
182:							
Ringle-----	7s	4s	4.00	110.00	---	100.00	10.00
183:							
Rock outcrop-----	8	---	---	---	---	---	---
Rubble land-----	8	---	---	---	---	---	---
184:							
Sanfelipe-----	6e	---	---	---	---	---	---
Sanfelipe, moist---	6e	---	---	---	---	---	---
185:							
Shenon-----	4c	3e	5.50	85.00	---	120.00	9.00
186:							
Shenon-----	4e	4e	5.00	80.00	---	115.00	9.00
187:							
Shenon-----	4e	3e	5.50	85.00	---	120.00	9.00
Perreau-----	6e	3e	5.50	85.00	---	120.00	14.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
188:							
Shenon-----	4e	4e	5.00	---	---	---	9.00
Perreau-----	6e	4e	5.00	---	---	---	13.00
189:							
Simeroi-----	6e	3e	4.00	100.00	---	90.00	8.00
190:							
Simeroi-----	6e	---	---	---	---	---	---
191:							
Simeroi, cold-----	6e	3e	4.00	---	---	---	8.00
Simeroi-----	6e	3e	4.00	---	---	---	8.00
192:							
Simeroi-----	6e	---	---	---	---	---	---
Paint-----	7e	---	---	---	---	---	---
Sanfelipe-----	6e	---	---	---	---	---	---
193:							
Simeroi-----	6e	3e	4.00	---	---	---	8.00
Whitecloud-----	6s	6s	2.50	---	---	---	7.00
194:							
Skibo-----	6e	---	---	---	---	---	---
195:							
Smout-----	4s	4s	---	---	2.00	---	5.00
Cowbone-----	5w	5w	---	---	3.00	---	5.00
196:							
Smout-----	4s	4s	---	---	2.00	---	5.00
Yearian-----	5w	5w	---	---	---	---	5.00
197:							
Snowslide-----	7e	---	---	---	---	---	---
198:							
Snowslide-----	7s	---	---	---	---	---	---
199:							
Snowslide-----	7e	---	---	---	---	---	---
200:							
Snowslide-----	7e	---	---	---	---	---	---
Badland-----	8	---	---	---	---	---	---
Perreau-----	6e	---	---	---	---	---	---
201:							
Snowslide-----	7e	---	---	---	---	---	---
Farvant-----	7s	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
202:							
Snowslide, south---	7e	---	---	---	---	---	---
Zer-----	6e	---	---	---	---	---	---
Snowslide, north---	7e	---	---	---	---	---	---
203:							
Soen-----	4e	4e	3.00	70.00	---	---	---
204:							
Soen-----	4e	---	---	---	---	---	---
Justesen-----	3e	---	---	---	---	---	---
Howcan-----	6e	---	---	---	---	---	---
205:							
Sparmo-----	6e	3c	3.00	75.00	---	100.00	5.00
206:							
Sparmo-----	6e	3c	3.00	75.00	---	100.00	5.00
Zer-----	6e	4e	2.25	60.00	---	75.00	3.75
207:							
Sparmo-----	6e	3e	3.00	75.00	---	100.00	5.00
Zer-----	6e	4e	2.25	60.00	---	75.00	3.75
208:							
Sprabat-----	7c	3e	4.00	80.00	---	110.00	8.00
209:							
Sprabat-----	7e	3e	---	---	---	---	---
Snowslide-----	7e	4e	4.00	80.00	---	105.00	8.00
210:							
Struggle-----	6e	---	---	---	---	---	---
Struggle, very stony-----	6e	---	---	---	---	---	---
211:							
Surrett-----	6s	---	---	---	---	---	---
212:							
Surrett-----	6s	---	---	---	---	---	---
Nurkey-----	6e	---	---	---	---	---	---
213:							
Swahlen-----	4s	3s	3.00	---	---	---	3.00
Packham-----	6s	4s	3.00	45.00	---	---	7.50
214:							
Swahlen-----	4s	3s	3.00	---	---	---	3.00
Yearian-----	5w	5w	---	---	---	---	5.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
215:							
Thosand-----	5w	5w	---	---	---	---	---
Chillybu-----	5w	5w	---	---	---	---	---
216:							
Thosand-----	5w	5w	---	---	---	---	---
Sancrane-----	5w	5w	---	---	---	---	---
217:							
Thosand-----	5w	5w	---	---	---	---	---
Wiskisprings-----	5w	5w	---	---	---	---	4.00
218:							
Threedot-----	6e	---	---	---	---	---	---
219:							
Threedot-----	6e	---	---	---	---	---	---
220:							
Threedot, dry-----	7e	---	---	---	---	---	---
Threedot-----	7e	---	---	---	---	---	---
221:							
Typic Cryaquepts---	5w	---	---	---	---	---	---
222:							
Ureal-----	6e	---	---	---	---	---	---
Zeebar-----	6e	---	---	---	---	---	---
Dacont-----	6e	---	---	---	---	---	---
223:							
Venum-----	7e	---	---	---	---	---	---
Cronks-----	7s	---	---	---	---	---	---
224:							
Venum-----	7e	---	---	---	---	---	---
Rock outcrop-----	8	---	---	---	---	---	---
225:							
Venum-----	7e	---	---	---	---	---	---
Custco-----	6e	---	---	---	---	---	---
226:							
Whitecloud-----	6s	6s	2.50	---	---	---	7.00
227:							
Whitecloud-----	6s	---	---	---	---	---	---
228:							
Whitecloud-----	6s	---	---	---	---	---	---
Sanfelipe-----	6e	---	---	---	---	---	---
Fandow-----	7s	---	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
229:							
Whitecloud-----	6s	4s	4.00	---	---	---	8.00
Simeroi-----	6e	3e	4.00	---	---	---	8.00
230:							
Whiteknob-----	6s	4s	---	---	---	---	8.00
231:							
Whiteknob-----	6s	4s	---	---	---	---	8.00
Leadore-----	6e	4e	---	---	---	---	8.00
232:							
Whiteknob-----	6s	4s	---	---	---	---	8.00
Zer-----	6e	4e	---	---	---	---	---
233:							
Wiggleton-----	6s	---	---	---	---	---	---
234:							
Wiggleton-----	6s	6s	---	---	---	---	---
Copperbasin-----	6c	6c	---	---	---	---	3.50
235:							
Wimpey-----	4w	4w	---	---	2.50	---	6.25
Zeph-----	4w	4w	---	---	1.50	---	3.00
Ajax-----	5w	5w	---	---	2.50	---	6.25
236:							
Windcoat-----	6e	---	---	---	---	---	---
237:							
Windcoat-----	6e	---	---	---	---	---	---
Fadow-----	7s	---	---	---	---	---	---
238:							
Wiskisprings-----	5w	5w	---	---	2.00	---	4.00
Biglost-----	6s	6s	---	---	---	---	2.00
239:							
Wiskisprings-----	5w	5w	---	---	2.00	---	4.00
Biglost-----	6s	6s	---	---	---	---	2.00
Copperbasin-----	6c	6c	---	---	2.00	---	3.50
240:							
Xeric Torrifluvents	4e	---	---	---	---	---	---
241:							
Yearian-----	5w	5w	---	---	---	---	5.00
242:							
Yearian-----	6w	6w	---	---	---	---	5.00

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
243:							
Zeale-----	6e	---	---	---	---	---	---
Meegero-----	6e	---	---	---	---	---	---
244:							
Zeale-----	6e	---	---	---	---	---	---
Meegero-----	6e	---	---	---	---	---	---
245:							
Zeale-----	6e	---	---	---	---	---	---
Zeelnot-----	6e	---	---	---	---	---	---
246:							
Zeebar-----	6e	---	---	---	---	---	---
Nielsen-----	7e	---	---	---	---	---	---
Povey-----	7e	---	---	---	---	---	---
247:							
Zeebar-----	6e	---	---	---	---	---	---
Parkay-----	6e	---	---	---	---	---	---
248:							
Zeebar-----	6e	---	---	---	---	---	---
Resoot-----	6e	---	---	---	---	---	---
249:							
Zeegee-----	5w	5w	---	---	2.50	---	6.25
Ajax-----	5w	5w	---	---	2.50	---	6.25
250:							
Zeelnot-----	6e	---	---	---	---	---	---
251:							
Zeelnot-----	6e	---	---	---	---	---	---
252:							
Zeelnot-----	6e	---	---	---	---	---	---
Meegernot-----	6e	---	---	---	---	---	---
Adek-----	6e	---	---	---	---	---	---
253:							
Zer-----	7e	---	---	---	---	---	---
254:							
Zer-----	6e	---	---	---	---	---	---
255:							
Zer-----	4s	4s	2.50	80.00	---	---	---
256:							
Zer-----	6e	4e	2.25	60.00	---	---	---
257:							
Zer-----	6s	4e	---	---	---	---	---

Table 5.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability		Alfalfa hay	Barley	Grass hay	Oats	Pasture
	N	I	I	I	I	I	I
			Tons	Bu	Tons	Bu	AUM
258: Zer-----	6e	---	---	---	---	---	---
259: Zer-----	6e	4e	2.25	60.00	---	75.00	3.75
Snowslide-----	7s	3s	4.00	80.00	---	105.00	8.00
260: Zer-----	6e	---	---	---	---	---	---
Snowslide-----	7e	---	---	---	---	---	---
261: Zer-----	6e	4e	---	---	---	---	---
Whitknob-----	6s	4s	4.00	100.00	---	90.00	8.00
262: Simeroi-----	7e	---	---	---	---	---	---
263: Water-----	8	---	---	---	---	---	---

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities

(Composition of ecological sites based on percent weight; composition of forest understory based on percent canopy cover. Absence of an entry indicates that an ecological site was not assigned)

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight Lb/acre		Forest	Range Pct
1: Alpinepeak-----	SEMIWET MEADOW CAREX (R012XY023ID)	Favorable	1,500	Sedge		30
		Normal	1,100	Wheatgrass		25
		Unfavorable	650	Basin wildrye		10
				Other perennial forbs		10
				Willow		5
2: Aquents. Riverwash.						
3: Arbus-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	350	Low sagebrush		30
		Unfavorable	200	Other shrubs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Indian ricegrass		3
				Wheatgrass		2
4: Arco-----	SEMIWET MEADOW (R012XY039ID)	Favorable	4,000	Sedge		20
		Normal	2,250	Shrubby cinquefoil		20
		Unfavorable	1,600	Mountain brome		10
				Tufted hairgrass		10
				Basin wildrye		5
				Cinquefoil		5
				Clover		5
5: Badland. Millhi-----	FRAGILE LANDS 7-9 ATCO/LESAS2 (R012XY019ID)	Favorable	300	Shadscale saltbush		20
		Normal	150	Indian ricegrass		15
		Unfavorable	75	Hood's phlox		10
				Sandberg bluegrass		10
				Bottlebrush squirreltail		10
				Bud sagebrush		10
				Wyoming big sagebrush		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
				Other shrubs		5
				Woollypod milkvetch		5
6: Bartonflat-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	500	Bluebunch wheatgrass		45
		Normal	325	Wyoming big sagebrush		20
		Unfavorable	250	Other shrubs		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Bottlebrush squirreltail		5
				Other perennial forbs		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
7: Bartonflat-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	500	Bluebunch wheatgrass		45
		Normal	325	Wyoming big sagebrush		20
		Unfavorable	250	Other shrubs		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Bottlebrush squirreltail		5
			Other perennial forbs		5	
8: Bartonhill-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	900	Western wheatgrass		30
		Normal	500	Basin big sagebrush		25
		Unfavorable	300	Other perennial grasses		10
				Other shrubs		7
				Basin wildrye		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
				Sandberg bluegrass		3
				Green rabbitbrush		3
				Arrowleaf balsamroot		2
				Bottlebrush squirreltail		2
				Longleaf hawksbeard		2
				Aster		1
Whitecloud-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	600	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
			Other shrubs		5	
9: Bayhorse, north	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Indian ricegrass		5
			Sandberg bluegrass		5	
			Other perennial forbs		5	
Bayhorse, south	FLAGSTONE 8-11 ARTRW8/LESAS2 (R012XY017ID)	Favorable	500	Wyoming big sagebrush		35
		Normal	300	Salmon wildrye		35
		Unfavorable	175	Hood's phlox		5
				Sandberg bluegrass		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
			Other perennial grasses		5	
			Other shrubs		5	
10: Bayhorse-----	FLAGSTONE 8-11 ARTRW8/LESAS2 (R012XY017ID)	Favorable	500	Wyoming big sagebrush		35
		Normal	300	Salmon wildrye		35
		Unfavorable	175	Hood's phlox		5
				Sandberg bluegrass		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
			Other perennial grasses		5	
			Other shrubs		5	

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
		Lb/acre		Pct		
10: Dawtonia-----	FLAGSTONE 8-11 ARTRW8/LESAS2 (R012XY017ID)	Favorable	500	Salmon wildrye		35
		Normal	300	Wyoming big sagebrush		30
		Unfavorable	200	Other shrubs		10
				Sandberg bluegrass		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
				Other perennial grasses		5
				Phlox		5
11: Bigflat.						
Dacont-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	600	Bluebunch wheatgrass		55
		Normal	450	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Salmon wildrye		5
				Western wheatgrass		5
12: Biglost-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	1,000	Western wheatgrass		45
		Normal	600	Basin big sagebrush		20
		Unfavorable	400	Other perennial forbs		10
				Other perennial grasses		10
				Other shrubs		10
				Sandberg bluegrass		5
Copperbasin----	RIVERBOTTOM 10-16 POPUL/PASM (R012XY042ID)	Favorable	1,800	Other perennial forbs		15
		Normal	1,300	Western wheatgrass		15
		Unfavorable	800	Kentucky bluegrass		10
				Basin wildrye		10
				Other perennial grasses		10
				Other shrubs		10
				Sedge		10
				Willow		10
				Black cottonwood		5
				Bluebunch wheatgrass		5
13: Bigrant, very poorly drained	WET MEADOW (R012XY038ID)	Favorable	4,500	Sedge		30
		Normal	3,600	Nebraska sedge		15
		Unfavorable	3,000	Tufted hairgrass		15
				Baltic rush		5
				Inland saltgrass		5
				Shrubby cinquefoil		5
				Small camas		5
				Willow		5
Bigrant, poorly drained-----	SEMIWET MEADOW (R012XY039ID)	Favorable	4,000	Slender wheatgrass		20
		Normal	2,250	Sedge		15
		Unfavorable	1,600	Basin wildrye		10
				Inland saltgrass		10
				Tufted hairgrass		10
				Baltic rush		5
				Nebraska sedge		5
				Nevada bluegrass		5
				Shrubby cinquefoil		5
				Western wheatgrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
14: Bigrant-----	SEMIWET MEADOW (R012XY039ID)	Favorable	4,000	Slender wheatgrass		20
		Normal	2,250	Sedge		15
		Unfavorable	1,600	Basin wildrye		10
				Inland saltgrass		10
				Tufted hairgrass		10
				Baltic rush		5
				Nebraska sedge		5
				Nevada bluegrass		5
				Shrubby cinquefoil		5
				Western wheatgrass		5
Thosand-----	WET MEADOW (R012XY038ID)	Favorable	4,500	Sedge		30
		Normal	3,600	Nebraska sedge		15
		Unfavorable	3,000	Tufted hairgrass		15
				Baltic rush		5
				Clover		5
				Small camas		5
			Willow		5	
Dickeypeak-----	SALINE LOAMY 8-11 SAVE4/LECI4 (R012XY018ID)	Favorable	950	Black greasewood		35
		Normal	700	Basin wildrye		25
		Unfavorable	350	Bottlebrush squirreltail		10
				Basin big sagebrush		5
				Thickspike wheatgrass		5
15: Blackfoot-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	1,000	Western wheatgrass		30
		Normal	600	Basin big sagebrush		25
		Unfavorable	400	Sandberg bluegrass		5
				Basin wildrye		5
16: Blackfoot-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	1,000	Western wheatgrass		30
		Normal	600	Basin big sagebrush		25
		Unfavorable	400	Sandberg bluegrass		5
				Basin wildrye		5
Borco-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	800	Western wheatgrass		30
		Normal	400	Basin big sagebrush		25
		Unfavorable	300	Other perennial grasses		10
				Other shrubs		10
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Basin wildrye		5
				Bluebunch wheatgrass		5
			Other perennial forbs		5	
17: Bluedome-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		45
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial forbs		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
18: Bock-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		30
		Normal	700	Wyoming big sagebrush		20
		Unfavorable	450	Green rabbitbrush		10
				Other perennial grasses		10
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Threetip sagebrush		5
Breitenbach----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	900	Bluebunch wheatgrass		40
		Normal	600	Wyoming big sagebrush		20
		Unfavorable	350	Thurber needlegrass		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
19: Bock-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		30
		Normal	700	Wyoming big sagebrush		20
		Unfavorable	450	Green rabbitbrush		10
				Other perennial grasses		10
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Threetip sagebrush		5
Bromaglin-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Bluebunch wheatgrass		30
		Normal	600	Wyoming big sagebrush		25
		Unfavorable	300	Needleandthread		10
				Other perennial grasses		10
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Other shrubs		5
20: Bockston-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		30
		Normal	700	Wyoming big sagebrush		20
		Unfavorable	450	Green rabbitbrush		10
				Other perennial grasses		10
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Threetip sagebrush		5
21: Brabas-----	WINDSWEPT RIDGE 11-16 ARTR4- ARAR8/POA (R012XY014ID)	Favorable	350	Sandberg bluegrass		15
		Normal	200	Hood's phlox		10
		Unfavorable	100	Bluebunch wheatgrass		10
				Fringed sagewort		10
				Other perennial forbs		10
				Aster		5
				Bluegrass		5
				Bottlebrush squirreltail		5
				Buckwheat		5
				Low sagebrush		5
				Other perennial grasses		5
				Other shrubs		5
				Stemless goldenweed		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
21: Heathcoat-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,100	Idaho fescue		25
		Normal	750	Mountain big sagebrush		20
		Unfavorable	550	Bluebunch wheatgrass		15
				Other perennial forbs		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Lupine		5
				Other shrubs		5
22: Breitenbach-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	900	Bluebunch wheatgrass		40
		Normal	600	Wyoming big sagebrush		20
		Unfavorable	350	Thurber needlegrass		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
23: Breitenbach-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	900	Bluebunch wheatgrass		40
		Normal	600	Wyoming big sagebrush		20
		Unfavorable	350	Thurber needlegrass		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
24: Breitenbach-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	900	Bluebunch wheatgrass		40
		Normal	600	Wyoming big sagebrush		20
		Unfavorable	350	Thurber needlegrass		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
25: Bunting-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	950	Bluebunch wheatgrass		30
		Normal	700	Thurber needlegrass		15
		Unfavorable	350	Wyoming big sagebrush		15
				Indian ricegrass		5
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Needleandthread		5
26: Bunting-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	750	Bluebunch wheatgrass		45
		Normal	400	Low sagebrush		30
		Unfavorable	200	Hood's phlox		5
				Sandberg bluegrass		5
				Prairie Junegrass		5
27: Bunting-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	950	Bluebunch wheatgrass		30
		Normal	700	Thurber needlegrass		15
		Unfavorable	350	Wyoming big sagebrush		15
				Indian ricegrass		5
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Needleandthread		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
27: Moffspring-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	800	Western wheatgrass		30
		Normal	600	Basin big sagebrush		25
		Unfavorable	300	Basin wildrye		10
				Bluebunch wheatgrass		10
				Indian ricegrass		5
28: Bursteadt-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	750	Western wheatgrass		40
		Normal	550	Basin big sagebrush		20
		Unfavorable	300	Basin wildrye		10
				Indian ricegrass		5
				Bluebunch wheatgrass		5
				Longleaf hawksbeard		5
Tohobit-----	RIVERBOTTOM 10-16 POPUL/PASM (R012XY042ID)	Favorable	1,600	Western wheatgrass		15
		Normal	1,200	Basin wildrye		10
		Unfavorable	750	Other perennial forbs		10
				Willow		10
				Nebraska sedge		5
				Woods' rose		5
				Black cottonwood		5
			Bluebunch wheatgrass		5	
29: Busterback-----	GRAVELLY LOAM 16-22 ARTRV/FEID (043AY010ID)	Favorable	1,500	Idaho fescue		40
		Normal	1,000	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Other perennial forbs		10
				Other perennial grasses		10
				Columbia needlegrass		5
				Arrowleaf balsamroot		5
				Other shrubs		5
Wiggleton-----	GRAVELLY LOAM 16-22 ARTRV/FEID (043AY010ID)	Favorable	1,500	Idaho fescue		40
		Normal	1,000	Mountain big sagebrush		20
		Unfavorable	500	Bluebunch wheatgrass		10
				Other perennial forbs		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Other shrubs		5
30: Calcids-----	STEEP LIMESTONE 13-16 CELE3/PSSP6 (R012XY015ID)	Favorable	500	Bluebunch wheatgrass		40
		Normal	300	Wyoming big sagebrush		10
		Unfavorable	200	Curleaf mountain mahogany		10
				Mountain big sagebrush		10
				Sagebrush		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Needlegrass		5
Badland.						
Xerolls.						

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
31:						
Calcids-----	STEEP LIMESTONE 13-16 CELE3/PSSP6 (R012XY015ID)	Favorable	500	Bluebunch wheatgrass		40
		Normal	300	Wyoming big sagebrush		10
		Unfavorable	200	Curleaf mountain mahogany		10
				Mountain big sagebrush		10
				Sagebrush		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Needlegrass		5
Rubble land.						
Rock outcrop.						
32:						
Castlepeak-----	SHALLOW GRAVELLY 13-16 ARAR8/FEID (043AY016ID)	Favorable	900	Idaho fescue		55
		Normal	600	Low sagebrush		20
		Unfavorable	400	Other perennial forbs		10
				Other shrubs		10
				Other perennial grasses		5
Yankeefork-----	GRAVELLY LOAM 16-22 ARTRV/FEID (043AY010ID)	Favorable	1,400	Idaho fescue		40
		Normal	900	Bluebunch wheatgrass		15
		Unfavorable	400	Mountain big sagebrush		15
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Other perennial grasses		5
33:						
Chamberlain-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,000	Idaho fescue		25
		Normal	650	Bluebunch wheatgrass		15
		Unfavorable	350	Mountain big sagebrush		15
				Other perennial forbs		10
				Other perennial grasses		10
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Other shrubs		5
34:						
Coalkiln-----	DOUGLAS FIR/PINEGRASS (CDG113)	Favorable	---	Common juniper	20	
		Normal	---	Heartleaf arnica	15	
		Unfavorable	---	Other perennial forbs	10	
				Pinegrass	10	
				Douglas fir	5	
				Bluegrass	5	
				Low Oregongrape	5	
				Pyrola	5	
				Sedge	5	
				Vetch	5	
Zeelnot-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,300	Idaho fescue		30
		Normal	900	Mountain big sagebrush		20
		Unfavorable	400	Bluebunch wheatgrass		10
				Other perennial grasses		10
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
35: Copperbasin-----	MOUNTAIN WET MEADOW (043AY012ID)	Favorable	4,000	Idaho fescue		20
		Normal	3,000	Silver sagebrush		20
		Unfavorable	2,000	Tufted hairgrass		20
				Fleabane		5
				Northwest cinquefoil		5
				Other shrubs		5
				Sedge		5
Redfish-----	RIPARIAN SALIX/CAREX (043AY011ID)	Favorable	4,000	Beaked sedge		25
		Normal	3,500	Water sedge		20
		Unfavorable	3,000	Wolf's willow		10
				Other perennial forbs		10
				Sedge		10
				Willow		10
				Other perennial grasses		5
				Other shrubs		5
				Western polemonium		5
36: Copperbasin-----	RIVERBOTTOM 10-16 POPUL/PASM (R012XY042ID)	Favorable	1,800	Other perennial forbs		15
		Normal	1,300	Western wheatgrass		15
		Unfavorable	800	Kentucky bluegrass		10
				Basin wildrye		10
				Other perennial grasses		10
				Other shrubs		10
				Sedge		10
				Willow		10
				Black cottonwood		5
				Bluebunch wheatgrass		5
Redfish-----	RIPARIAN SALIX/CAREX (043AY011ID)	Favorable	4,000	Beaked sedge		25
		Normal	3,500	Water sedge		20
		Unfavorable	3,000	Wolf's willow		10
				Other perennial forbs		10
				Sedge		10
				Willow		10
				Other perennial grasses		5
				Other shrubs		5
				Western polemonium		5
37: Cowbone-----	RIVERBOTTOM 10-16 POPUL/PASM (R012XY042ID)	Favorable	2,000	Black cottonwood		15
		Normal	1,500	Western wheatgrass		15
		Unfavorable	1,000	Basin wildrye		10
				Other perennial forbs		10
				Slimstem reedgrass		10
				Woods' rose		5
				Willow		5
Tohobit-----	RIVERBOTTOM 10-16 POPUL/PASM (R012XY042ID)	Favorable	1,600	Western wheatgrass		15
		Normal	1,200	Basin wildrye		10
		Unfavorable	750	Other perennial forbs		10
				Willow		10
				Nebraska sedge		5
				Woods' rose		5
				Black cottonwood		5
				Bluebunch wheatgrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
38:						
Cronks-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	650	Bluebunch wheatgrass		50
		Normal	400	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Salmon wildrye		10
				Indian ricegrass		5
				Other perennial grasses		5
				Other shrubs		5
Challis-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		40
		Normal	600	Threetip sagebrush		20
		Unfavorable	450	Hood's phlox		5
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Bluebunch wheatgrass		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
39:						
Cronks-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Salmon wildrye		10
				Indian ricegrass		5
				Other perennial grasses		5
				Other shrubs		5
Venum-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	700	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
40:						
Cryolls-----	STEEP LIMESTONE 16-22 CELE3/FEID (R012XY016ID)	Favorable	500	Idaho fescue		30
		Normal	350	Bluebunch wheatgrass		10
		Unfavorable	200	Curleaf mountain mahogany		10
				Longleaf hawksbeard		10
				Prairie Junegrass		5
Rubble land.						
41:						
Cryolls-----	STEEP LIMESTONE 16-22 CELE3/FEID (R012XY016ID)	Favorable	500	Idaho fescue		30
		Normal	350	Bluebunch wheatgrass		10
		Unfavorable	200	Curleaf mountain mahogany		10
				Longleaf hawksbeard		10
				Prairie Junegrass		5
Rubble land.						
Rock outcrop.						

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
42: Cryepts-----	WHITEBARK PINE/ELK SEDGE	Favorable	---	Grouse blueberry	20	
		Normal	---	Whitebark pine	15	
		Unfavorable	---	Bluegrass	10	
				Heartleaf arnica	10	
				Other perennial forbs	10	
				Sedge	10	
				Mountain juniper	5	
				Other perennial grasses	5	
				Pinegrass	5	
				Pink mountainheath	5	
				Subalpine fir	5	
Rubble land.						
Rock outcrop.						
43: Custco-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		40
		Normal	600	Threetip sagebrush		20
		Unfavorable	450	Bluebunch wheatgrass		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
44: Dacont-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	600	Bluebunch wheatgrass		55
		Normal	450	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Salmon wildrye		5
				Western wheatgrass		5
Custco-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		40
		Normal	600	Threetip sagebrush		20
		Unfavorable	450	Bluebunch wheatgrass		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
45: Dacont-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	600	Bluebunch wheatgrass		55
		Normal	450	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Salmon wildrye		5
				Western wheatgrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
45: Resoot-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	1,000	Idaho fescue		35
		Normal	700	Threetip sagebrush		20
		Unfavorable	500	Bluebunch wheatgrass		10
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Mountain big sagebrush		5
				Other perennial forbs		5
				Prairie Junegrass		5
Nielsen-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		45
		Normal	600	Threetip sagebrush		15
		Unfavorable	450	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Milkvetch		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Phlox		5
46: Dacont-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	600	Bluebunch wheatgrass		55
		Normal	450	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Salmon wildrye		5
				Western wheatgrass		5
Zeebar-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	1,100	Idaho fescue		35
		Normal	900	Threetip sagebrush		20
		Unfavorable	600	Bluebunch wheatgrass		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Mountain big sagebrush		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5
47: Darlington-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	900	Bluebunch wheatgrass		30
		Normal	700	Wyoming big sagebrush		20
		Unfavorable	400	Thurber needlegrass		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Western wheatgrass		5
Lesbut-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Thurber needlegrass		5
				Arrowleaf balsamroot		5
				Thickspike wheatgrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
48: Dawtonia-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
				Salmon wildrye		5
49: Dawtonia-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
				Salmon wildrye		5
Dawtonia, cold--	WINDSWEPT 8-11 SPAR2-ARFR4/POSE- HECOC8 (R012XY006ID)	Favorable	300	Sandberg bluegrass		15
		Normal	200	Phlox		15
		Unfavorable	100	Nuttall tansy		10
				Fringed sagewort		10
				Needleandthread		10
				Swallen's needlegrass		5
				Indian ricegrass		5
				Wyoming big sagebrush		5
				Bottlebrush squirreltail		5
				Buckwheat		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
50: Dawtonia, cold--	WINDSWEPT 8-11 SPAR2-ARFR4/POSE- HECOC8 (R012XY006ID)	Favorable	300	Sandberg bluegrass		15
		Normal	200	Phlox		15
		Unfavorable	100	Nuttall tansy		10
				Fringed sagewort		10
				Needleandthread		10
				Swallen's needlegrass		5
				Indian ricegrass		5
				Wyoming big sagebrush		5
				Bottlebrush squirreltail		5
				Buckwheat		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
Dawtonia-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
				Salmon wildrye		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
51: Dawtonia-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
				Salmon wildrye		5
Frailton-----	SHALLOW FRACTURED SOUTH 8-12 ARTRW8/PSSP6 (R012XY031ID)	Favorable	500	Wyoming big sagebrush		20
		Normal	350	Bluebunch wheatgrass		20
		Unfavorable	150	Indian ricegrass		10
				Other perennial grasses		10
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
				Salmon wildrye		5
				Thickspike wheatgrass		5
				Western wheatgrass		5
52: Dawtonia-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
				Salmon wildrye		5
Kehar-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	800	Wyoming big sagebrush		25
		Normal	600	Bluebunch wheatgrass		25
		Unfavorable	300	Other shrubs		15
				Needleandthread		10
				Indian ricegrass		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Other perennial forbs		5
				Other perennial grasses		5
Soen-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	1,000	Western wheatgrass		45
		Normal	600	Basin big sagebrush		20
		Unfavorable	400	Other perennial forbs		10
				Other perennial grasses		10
				Other shrubs		10
				Sandberg bluegrass		5
53: Dawtonia-----	FLAGSTONE 8-11 ARTRW8/LESAS2 (R012XY017ID)	Favorable	500	Salmon wildrye		35
		Normal	300	Wyoming big sagebrush		30
		Unfavorable	200	Other shrubs		10
				Sandberg bluegrass		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
				Other perennial grasses		5
				Phlox		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			Pct
			Lb/acre			
53: Rock outcrop.						
54: Dawtonia-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
				Salmon wildrye		5
Custco-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		40
		Normal	600	Threetip sagebrush		20
		Unfavorable	450	Bluebunch wheatgrass		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
55: Dawtonia-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
				Salmon wildrye		5
Dacont-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	600	Bluebunch wheatgrass		55
		Normal	450	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Salmon wildrye		5
				Western wheatgrass		5
56: Derwell-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	800	Bluebunch wheatgrass		30
		Normal	600	Wyoming big sagebrush		25
		Unfavorable	250	Other shrubs		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Needleandthread		5
				Sandwort		5
Whiteknob-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	600	Bluebunch wheatgrass		45
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
57:						
Derwell-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	800	Bluebunch wheatgrass		30
		Normal	600	Wyoming big sagebrush		25
		Unfavorable	250	Other shrubs		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Needleandthread		5
				Sandwort		5
Zer-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		5
				Sandberg bluegrass		5
				Salmon wildrye		5
Packmo-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
58:						
Dickeypeak-----	SALINE LOAMY 8-11 SAVE4/LECI4 (R012XY018ID)	Favorable	950	Black greasewood		35
		Normal	700	Basin wildrye		25
		Unfavorable	350	Bottlebrush squirreltail		10
				Basin big sagebrush		5
				Thickspike wheatgrass		5
Bigrant-----	SEMIWET MEADOW (R012XY039ID)	Favorable	4,000	Slender wheatgrass		20
		Normal	2,250	Sedge		15
		Unfavorable	1,600	Basin wildrye		10
				Inland saltgrass		10
				Tufted hairgrass		10
				Baltic rush		5
				Nebraska sedge		5
				Nevada bluegrass		5
				Shrubby cinquefoil		5
				Western wheatgrass		5
59:						
Donkehill-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	500	Bluebunch wheatgrass		45
		Normal	350	Low sagebrush		35
		Unfavorable	275	Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Prairie Junegrass		5
60:						
Donkehill-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	500	Bluebunch wheatgrass		45
		Normal	350	Low sagebrush		35
		Unfavorable	275	Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Prairie Junegrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
60: Zeebar-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Other perennial forbs		10
				Arrowleaf balsamroot		5
				Mountain brome		5
				Other perennial grasses		5
				Other shrubs		5
				Slender wheatgrass		5
61: Donkehill-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	500	Bluebunch wheatgrass		45
		Normal	350	Low sagebrush		35
		Unfavorable	275	Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Prairie Junegrass		5
Zeebar-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	1,100	Idaho fescue		35
		Normal	900	Threetip sagebrush		20
		Unfavorable	600	Bluebunch wheatgrass		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Mountain big sagebrush		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5
62: Dumps, mine.						
63: Escarlo-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	700	Bluebunch wheatgrass		45
		Normal	400	Low sagebrush		25
		Unfavorable	300	Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
				Winterfat		5
Heathcoat-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,100	Idaho fescue		25
		Normal	750	Mountain big sagebrush		20
		Unfavorable	550	Bluebunch wheatgrass		15
				Other perennial forbs		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Lupine		5
				Other shrubs		5
64: Escarlo-----	CLAYEY 13-16 ARAR8/FEID (R012XY020ID)	Favorable	700	Idaho fescue		30
		Normal	400	Bluebunch wheatgrass		20
		Unfavorable	250	Low sagebrush		15
				Sandberg bluegrass		10
				Phlox		10
				Hooker's balsamroot		5
				Other perennial forbs		5
				Other shrubs		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
64: Heathcoat-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,100	Idaho fescue		25
		Normal	750	Mountain big sagebrush		20
		Unfavorable	550	Bluebunch wheatgrass		15
				Other perennial forbs		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Lupine		5
				Other shrubs		5
65: Ezbin-----	DOUGLAS FIR/PINEGRASS (CDG113)	Favorable	---	Pinegrass	20	
		Normal	---	Idaho fescue	10	
		Unfavorable	---	Bluebunch wheatgrass	10	
				Mountain big sagebrush	10	
				Other perennial forbs	10	
				Other shrubs	10	
				Blue wildrye	5	
				Heartleaf arnica	5	
				Longleaf hawksbeard	5	
				Mountain brome	5	
				Other perennial grasses	5	
	Whortleleaf snowberry			5		
Zeebar-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Other perennial forbs		10
				Arrowleaf balsamroot		5
				Mountain brome		5
				Other perennial grasses		5
				Other shrubs		5
	Slender wheatgrass		5			
Nielsen-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		45
		Normal	600	Threetip sagebrush		15
		Unfavorable	450	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Milkvetch		5
				Other perennial forbs		5
	Other perennial grasses		5			
	Other shrubs		5			
	Phlox		5			
66: Fandow-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	350	Low sagebrush		30
		Unfavorable	200	Other shrubs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Wheatgrass		5
67: Fandow-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	350	Low sagebrush		30
		Unfavorable	200	Other shrubs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Wheatgrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
67:						
Arbus-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	350	Low sagebrush		30
		Unfavorable	200	Other shrubs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Indian ricegrass		3
				Wheatgrass		2
68:						
Farvant-----	FRAGILE LANDS 7-9 ATCO/LESAS2 (R012XY019ID)	Favorable	300	Salmon wildrye		30
		Normal	200	Shadscale saltbush		15
		Unfavorable	100	Indian ricegrass		10
				Other perennial forbs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Wyoming big sagebrush		5
				Bottlebrush squirreltail		5
				Bud sagebrush		5
				Other perennial grasses		5
				Other shrubs		5
Badland.						
Gradco-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
69:						
Farvant-----	FRAGILE LANDS 7-9 ATCO/LESAS2 (R012XY019ID)	Favorable	300	Salmon wildrye		30
		Normal	200	Shadscale saltbush		15
		Unfavorable	100	Indian ricegrass		10
				Other perennial forbs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Wyoming big sagebrush		5
				Bottlebrush squirreltail		5
				Bud sagebrush		5
				Other perennial grasses		5
				Other shrubs		5
Sactus-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		35
		Normal	300	Indian ricegrass		20
		Unfavorable	200	Needleandthread		15
				Bottlebrush squirreltail		10
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
69: Dawtonia-----	FLAGSTONE 8-11 ARTRW8/LESAS2 (R012XY017ID)	Favorable	500	Salmon wildrye		35
		Normal	300	Wyoming big sagebrush		30
		Unfavorable	200	Other shrubs		10
				Sandberg bluegrass		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
				Other perennial grasses		5
			Phlox		5	
70: Fezip-----	WET MEADOW (043AY007ID)	Favorable	4,000	Water sedge		25
		Normal	3,500	Beaked sedge		20
		Unfavorable	3,000	Willow		20
				Sedge		10
				Baltic rush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Tufted hairgrass		5
				Western polemonium		5
Lemroi. Redfish-----	RIPARIAN SALIX/CAREX (043AY011ID)	Favorable	4,000	Beaked sedge		25
		Normal	3,500	Water sedge		20
		Unfavorable	3,000	Wolf's willow		10
				Other perennial forbs		10
				Sedge		10
				Willow		10
				Other perennial grasses		5
			Other shrubs		5	
			Western polemonium		5	
71: Fezip-----	WET MEADOW (043AY007ID)	Favorable	4,000	Water sedge		25
		Normal	3,500	Beaked sedge		20
		Unfavorable	3,000	Willow		20
				Sedge		10
				Baltic rush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Tufted hairgrass		5
				Western polemonium		5
Redfish-----	RIPARIAN SALIX/CAREX (043AY011ID)	Favorable	4,000	Beaked sedge		25
		Normal	3,500	Water sedge		20
		Unfavorable	3,000	Wolf's willow		10
				Other perennial forbs		10
				Sedge		10
				Willow		10
				Other perennial grasses		5
			Other shrubs		5	
			Western polemonium		5	
Copperbasin-----	MOUNTAIN WET MEADOW (043AY012ID)	Favorable	4,000	Idaho fescue		20
		Normal	3,000	Silver sagebrush		20
		Unfavorable	2,000	Tufted hairgrass		20
				Fleabane		5
				Northwest cinquefoil		5
				Other shrubs		5
			Sedge		5	

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
72: Firebox-----	DRY GRAVELLY 13-16 ARTR4/PSSP6 (R012XY008ID)	Favorable	900	Bluebunch wheatgrass		50
		Normal	500	Threetip sagebrush		25
		Unfavorable	300	Other perennial grasses		10
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
73: Firebox-----	GRAVELLY 13-16 ARTR4/FEID (R012XY033ID)	Favorable	550	Idaho fescue		40
		Normal	375	Threetip sagebrush		15
		Unfavorable	300	Sandberg bluegrass		5
				Biscuitroot		5
				Bluebunch wheatgrass		5
				Buckwheat		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Shootingstar		5
				Stonecrop		5
74: Frailton-----		FLAGSTONE 8-11 ARTRW8/LESAS2 (R012XY017ID)	Favorable	500	Wyoming big sagebrush	
	Normal		300	Salmon wildrye		35
	Unfavorable		175	Sandberg bluegrass		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
				Other perennial grasses		5
			Other shrubs		5	
			Phlox		5	
Dawtonia-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
			Other shrubs		5	
			Phlox		5	
			Salmon wildrye		5	
75: Frailton-----	FRAGILE LANDS 7-9 ATCO/LESAS2 (R012XY019ID)	Favorable	350	Salmon wildrye		40
		Normal	200	Indian ricegrass		15
		Unfavorable	75	Shadscale saltbush		15
				Sandberg bluegrass		5
				Wyoming big sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
			Phlox		5	
Gradco-----	LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	700	Bluebunch wheatgrass		40
		Normal	400	Black sagebrush		25
		Unfavorable	300	Other perennial forbs		10
				Sandberg bluegrass		5
				Other shrubs		5
			Salmon wildrye		5	

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
76: Friedman-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Mountain brome		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Whortleleaf snowberry		5
Reck-----	CLAYEY 12-16 ARARL/FEID (R012XY034ID)	Favorable	1,050	Idaho fescue		25
		Normal	650	Alkali sagebrush		20
		Unfavorable	400	Bluebunch wheatgrass		15
				Other perennial forbs		15
				Nevada bluegrass		5
				Bottlebrush squirreltail		5
				Low sagebrush		5
			Other perennial grasses		5	
			Other shrubs		5	
Goldhill-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	800	Bluebunch wheatgrass		40
		Normal	400	Low sagebrush		25
		Unfavorable	300	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Bluegrass		5
			Prairie Junegrass		5	
77: Gaciba-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		45
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other shrubs		5
			Salmon wildrye		5	
Cronks-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	650	Bluebunch wheatgrass		50
		Normal	400	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Salmon wildrye		10
				Indian ricegrass		5
				Other perennial grasses		5
			Other shrubs		5	
78: Gaciba-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		45
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other shrubs		5
			Salmon wildrye		5	

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
78: Dacont-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	600	Bluebunch wheatgrass		55
		Normal	450	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Salmon wildrye		5
				Western wheatgrass		5
79: Gany-----	DOUGLAS FIR/MOUNTAIN SNOWBERRY (CDS626)	Favorable	---	Mountain snowberry	25	
		Normal	---	Mountain big sagebrush	15	
		Unfavorable	---	Other shrubs	15	
				Bluebunch wheatgrass	10	
				Longleaf hawksbeard	5	
				Mountain brome	5	
				Other perennial forbs	5	
				Other perennial grasses	5	
				Rosy pussytoes	5	
				Slender wheatgrass	5	
			Western yarrow	5		
80: Geemore-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,200	Idaho fescue		45
		Normal	800	Mountain big sagebrush		20
		Unfavorable	600	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Lupine		5
				Other perennial forbs		5
			Other perennial grasses		5	
			Other shrubs		5	
81: Germer-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	300	Indian ricegrass		20
		Unfavorable	200	Bottlebrush squirreltail		15
				Needleandthread		15
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
			Other shrubs		5	
Dawtonia-----	FLAGSTONE 8-11 ARTRW8/LESAS2 (R012XY017ID)	Favorable	500	Salmon wildrye		35
		Normal	300	Wyoming big sagebrush		30
		Unfavorable	200	Other shrubs		10
				Sandberg bluegrass		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
			Other perennial grasses		5	
			Phlox		5	
82: Goldaho-----	DRY LOAMY 7-10 ATCO-ARFR4/PSSP6 (R012XY026ID)	Favorable	500	Bluebunch wheatgrass		60
		Normal	350	Hood's phlox		5
		Unfavorable	150	Indian ricegrass		5
				Sandberg bluegrass		5
				Fringed sagewort		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Shadscale saltbush		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition			
		Kind of year	Dry		Forest	Range		
			Weight				Pct	Pct
			Lb/acre					
82: Zer-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40		
		Normal	450	Wyoming big sagebrush		25		
		Unfavorable	250	Hood's phlox		5		
				Sandberg bluegrass		5		
				Salmon wildrye		5		
83: Goldhill-----	CLAYEY 12-16 ARARL/FEID (R012XY034ID)	Favorable	1,100	Idaho fescue		30		
		Normal	700	Alkali sagebrush		20		
		Unfavorable	400	Bluebunch wheatgrass		10		
				Hood's phlox		5		
				Hooker's balsamroot		5		
				Bluegrass		5		
				Buckwheat		5		
				Low sagebrush		5		
				Other perennial forbs		5		
				Other perennial grasses		5		
				Other shrubs		5		
Zeebar-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40		
		Normal	800	Mountain big sagebrush		15		
		Unfavorable	500	Bluebunch wheatgrass		10		
				Other perennial forbs		10		
				Arrowleaf balsamroot		5		
				Mountain brome		5		
				Other perennial grasses		5		
				Other shrubs		5		
				Slender wheatgrass		5		
84: Goosebury-----	COLD GRAVELLY 8-12 ARNO4/HECOC8 (R012XY040ID)	Favorable	700	Black sagebrush		20		
		Normal	400	Needleandthread		20		
		Unfavorable	200	Hood's phlox		10		
				Sandberg bluegrass		10		
				Bluebunch wheatgrass		10		
				Indian ricegrass		5		
85: Goosebury-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Low sagebrush		40		
		Normal	350	Bluebunch wheatgrass		30		
		Unfavorable	200	Other perennial grasses		10		
				Hood's phlox		5		
				Sandberg bluegrass		5		
				Other perennial forbs		5		
				Other shrubs		5		
86: Goosebury-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Low sagebrush		40		
		Normal	350	Bluebunch wheatgrass		30		
		Unfavorable	200	Other perennial grasses		10		
				Hood's phlox		5		
				Sandberg bluegrass		5		
				Other perennial forbs		5		
				Other shrubs		5		

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition			
		Kind of year	Dry		Forest	Range		
			Weight				Pct	Pct
			Lb/acre					
86: Windcoat-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		30		
		Normal	350	Low sagebrush		30		
		Unfavorable	200	Other shrubs		10		
				Hood's phlox		5		
				Sandberg bluegrass		5		
				Needleandthread		5		
				Other perennial forbs		5		
				Other perennial grasses		5		
				Wheatgrass		5		
87: Gradco-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40		
		Normal	400	Wyoming big sagebrush		20		
		Unfavorable	250	Other perennial grasses		10		
				Other shrubs		10		
				Hood's phlox		5		
				Indian ricegrass		5		
				Sandberg bluegrass		5		
				Other perennial forbs		5		
Farvant-----	FRAGILE LANDS 7-9 ATCO/LESAS2 (R012XY019ID)	Favorable	300	Salmon wildrye		30		
		Normal	200	Shadscale saltbush		15		
		Unfavorable	100	Indian ricegrass		10		
				Other perennial forbs		10		
				Hood's phlox		5		
				Sandberg bluegrass		5		
				Wyoming big sagebrush		5		
				Bottlebrush squirreltail		5		
				Bud sagebrush		5		
				Other perennial grasses		5		
Other shrubs		5						
88: Gradco-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	650	Bluebunch wheatgrass		40		
		Normal	400	Wyoming big sagebrush		20		
		Unfavorable	250	Other perennial grasses		10		
				Other shrubs		10		
				Hood's phlox		5		
				Indian ricegrass		5		
				Sandberg bluegrass		5		
				Other perennial forbs		5		
Farvant-----	FRAGILE LANDS 7-9 ATCO/LESAS2 (R012XY019ID)	Favorable	300	Salmon wildrye		30		
		Normal	200	Shadscale saltbush		15		
		Unfavorable	100	Indian ricegrass		10		
				Other perennial forbs		10		
				Hood's phlox		5		
				Sandberg bluegrass		5		
				Wyoming big sagebrush		5		
				Bottlebrush squirreltail		5		
				Bud sagebrush		5		
				Other perennial grasses		5		
Other shrubs		5						

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
89: Hagenbarth-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		50
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Arrowleaf balsamroot		5
				Bluebunch wheatgrass		5
				Buckwheat		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Other shrubs		5
				Slender wheatgrass		5
Brabas-----	WINDSWEPT RIDGE 11-16 ARTR4- ARAR8/POA (R012XY014ID)	Favorable	350	Sandberg bluegrass		15
		Normal	200	Hood's phlox		10
		Unfavorable	100	Bluebunch wheatgrass		10
				Fringed sagewort		10
				Other perennial forbs		10
				Aster		5
				Bluegrass		5
				Bottlebrush squirreltail		5
				Buckwheat		5
				Low sagebrush		5
				Other perennial grasses		5
				Other shrubs		5
				Stemless goldenweed		5
90: Heathcoat-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,100	Idaho fescue		25
		Normal	750	Mountain big sagebrush		20
		Unfavorable	550	Bluebunch wheatgrass		15
				Other perennial forbs		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Lupine		5
				Other shrubs		5
91: Heathcoat-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,100	Idaho fescue		25
		Normal	750	Mountain big sagebrush		20
		Unfavorable	550	Bluebunch wheatgrass		15
				Other perennial forbs		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Lupine		5
				Other shrubs		5
Goldhill-----	CLAYEY 12-16 ARARL/FEID (R012XY034ID)	Favorable	900	Idaho fescue		20
		Normal	600	Alkali sagebrush		20
		Unfavorable	300	Bluebunch wheatgrass		10
				Hooker's balsamroot		5
				Nevada bluegrass		5
				Biscuitroot		5
				Buckwheat		5
				Low sagebrush		5
				Onespike oatgrass		5
				Other perennial grasses		5
				Other shrubs		5
				Rosy pussytoes		5
				Sedge		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			Pct
			Lb/acre			
92:						
Heathcoat-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		35
		Normal	600	Threetip sagebrush		20
		Unfavorable	350	Bluebunch wheatgrass		10
				Other perennial forbs		10
				Arrowleaf balsamroot		5
				Lupine		5
				Other perennial grasses		5
				Other shrubs		5
Soen-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		35
		Normal	700	Wyoming big sagebrush		15
		Unfavorable	450	Other perennial grasses		15
				Other shrubs		15
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Wheatgrass		5
93:						
Howcan-----	LOAMY 12-16 ARTRV/PSSP6 (R012XY027ID)	Favorable	1,600	Bluebunch wheatgrass		40
		Normal	1,200	Mountain big sagebrush		15
		Unfavorable	800	Other perennial forbs		10
				Other perennial grasses		10
				Idaho fescue		5
				Arrowleaf balsamroot		5
				Big bluegrass		5
				Other shrubs		5
				Prairie Junegrass		5
Hagenbarth-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		50
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Arrowleaf balsamroot		5
				Bluebunch wheatgrass		5
				Buckwheat		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Other shrubs		5
				Slender wheatgrass		5
Hutchley-----	CLAYEY SOUTH SLOPE 12-16 ARAR8/PSSP6 (R012XY029ID)	Favorable	750	Low sagebrush		30
		Normal	425	Bluebunch wheatgrass		25
		Unfavorable	300	Hooker's balsamroot		10
				Other perennial grasses		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Dwarf green rabbitbrush		5
				Other perennial forbs		5
				Other shrubs		5
94:						
Hutchley-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		45
		Normal	500	Wyoming big sagebrush		15
		Unfavorable	300	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Dwarf green rabbitbrush		5
				Other perennial forbs		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
94: Nurkey-----	DRY GRAVELLY 13-16 ARTR4/PSSP6 (R012XY008ID)	Favorable	900	Bluebunch wheatgrass		45
		Normal	500	Threetip sagebrush		20
		Unfavorable	300	Idaho fescue		5
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Prairie Junegrass		5
				Rabbitbrush		5
95: Ike-----		LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	450	Bluebunch wheatgrass	
	Normal		350	Black sagebrush		25
	Unfavorable		200	Salmon wildrye		10
				Sandberg bluegrass		5
Rock outcrop.						
Jimbee-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	750	Bluebunch wheatgrass		50
		Normal	400	Low sagebrush		30
		Unfavorable	300	Sandberg bluegrass		5
				Other perennial forbs		5
				Other perennial grasses		5
			Other shrubs		5	
96: Inferno-----	CLAYEY SOUTH SLOPE 12-16 ARAR8/PSSP6 (R012XY029ID)	Favorable	750	Low sagebrush		35
		Normal	500	Bluebunch wheatgrass		20
		Unfavorable	300	Other perennial forbs		15
				Hooker's balsamroot		10
				Sandberg bluegrass		5
				Other perennial grasses		5
				Other shrubs		5
				Phlox		5
Grouseville----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Bluebunch wheatgrass		15
		Unfavorable	500	Mountain big sagebrush		15
				Other perennial forbs		10
				Antelope bitterbrush		5
			Bluegrass		5	
			Lupine		5	
			Snowberry		5	
97: Jimbee-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	750	Bluebunch wheatgrass		50
		Normal	400	Low sagebrush		30
		Unfavorable	300	Sandberg bluegrass		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
Rock outcrop.						
Ike-----	LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	450	Bluebunch wheatgrass		50
		Normal	350	Black sagebrush		25
		Unfavorable	200	Salmon wildrye		10
				Sandberg bluegrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
98:						
Justesen-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		40
		Normal	700	Wyoming big sagebrush		20
		Unfavorable	450	Sandberg bluegrass		10
				Other perennial forbs		10
				Indian ricegrass		5
				Arrowleaf balsamroot		5
				Other perennial grasses		5
				Other shrubs		5
Drage-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	1,000	Western wheatgrass		35
		Normal	600	Basin big sagebrush		25
		Unfavorable	400	Other perennial grasses		10
				Other shrubs		10
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Basin wildrye		5
				Other perennial forbs		5
99:						
Kadletz-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	350	Indian ricegrass		15
		Unfavorable	200	Needleandthread		15
				Bottlebrush squirreltail		10
				Other shrubs		10
				Sandberg bluegrass		5
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
100:						
Kehar-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	800	Wyoming big sagebrush		25
		Normal	600	Bluebunch wheatgrass		25
		Unfavorable	300	Other shrubs		15
				Needleandthread		10
				Indian ricegrass		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Other perennial forbs		5
				Other perennial grasses		5
101:						
Kehar-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	800	Wyoming big sagebrush		25
		Normal	600	Bluebunch wheatgrass		25
		Unfavorable	300	Other shrubs		15
				Needleandthread		10
				Indian ricegrass		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Other perennial forbs		5
				Other perennial grasses		5
Kehar, eroded---	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	800	Wyoming big sagebrush		25
		Normal	600	Bluebunch wheatgrass		25
		Unfavorable	300	Other shrubs		15
				Needleandthread		10
				Indian ricegrass		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Other perennial forbs		5
				Other perennial grasses		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
102: Ketchum-----	DOUGLAS FIR/PINEGRASS (CDG113)	Favorable	---	Pinegrass	25	
		Normal	---	Rocky Mountain Douglas fir	10	
		Unfavorable	---	Mountain juniper	10	
				Other perennial forbs	10	
				Other perennial grasses	8	
				Bluegrass	5	
				Grouse blueberry	5	
				Heartleaf arnica	5	
				Lodgepole pine	5	
				Low Oregongrape	5	
				Sedge	5	
				Squawcarpet	5	
				Other trees	2	
103: Ketchum, cold---	SUBALPINE FIR/GROUSE HUCKLEBERRY (blueberry) (CES421)	Favorable	---	Grouse blueberry	20	
		Normal	---	Subalpine fir	15	
		Unfavorable	---	Bluegrass	10	
				Heartleaf arnica	10	
				Other perennial forbs	10	
				Sedge	10	
				Mountain juniper	5	
				Other perennial grasses	5	
				Pinegrass	5	
				Pink mountainheath	5	
				Whitebark pine	5	
Ketchum-----	DOUGLAS FIR/PINEGRASS (CDG113)	Favorable	---	Pinegrass	25	
		Normal	---	Rocky Mountain Douglas fir	10	
		Unfavorable	---	Mountain juniper	10	
				Other perennial forbs	10	
				Other perennial grasses	8	
				Bluegrass	5	
				Grouse blueberry	5	
				Heartleaf arnica	5	
				Lodgepole pine	5	
				Low Oregongrape	5	
				Sedge	5	
				Squawcarpet	5	
				Other trees	2	
104: Klug-----	LOAMY 12-16 ARTRV/PSSP6 (R012XY027ID)	Favorable	1,100	Bluebunch wheatgrass		35
		Normal	700	Other perennial grasses		15
		Unfavorable	400	Mountain big sagebrush		10
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Lupine		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
105: Klug-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		35
		Normal	600	Threetip sagebrush		20
		Unfavorable	450	Bluebunch wheatgrass		10
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Lupine		5
				Mountain big sagebrush		5
				Other perennial forbs		5
				Prairie Junegrass		5
Gaciba-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		45
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other shrubs		5
				Salmon wildrye		5
Dacont-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	600	Bluebunch wheatgrass		55
		Normal	450	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Salmon wildrye		5
				Western wheatgrass		5
106: Klug-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		35
		Normal	600	Threetip sagebrush		20
		Unfavorable	450	Bluebunch wheatgrass		10
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Lupine		5
				Mountain big sagebrush		5
				Other perennial forbs		5
				Prairie Junegrass		5
Povey-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		45
		Normal	800	Mountain big sagebrush		20
		Unfavorable	500	Bluebunch wheatgrass		10
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Big bluegrass		5
				Slender wheatgrass		5
107: Klug-----	LOAMY 12-16 ARTRV/PSSP6 (R012XY027ID)	Favorable	1,100	Bluebunch wheatgrass		35
		Normal	700	Other perennial grasses		15
		Unfavorable	400	Mountain big sagebrush		10
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Lupine		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
107: Povey-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		45
		Normal	800	Mountain big sagebrush		20
		Unfavorable	500	Bluebunch wheatgrass		10
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Big bluegrass		5
				Slender wheatgrass		5
108: Klug-----	LOAMY 12-16 ARTRV/PSSP6 (R012XY027ID)	Favorable	1,100	Bluebunch wheatgrass		35
		Normal	700	Other perennial grasses		15
		Unfavorable	400	Mountain big sagebrush		10
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Lupine		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5
Zeebar-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY022ID)	Favorable	600	Bluebunch wheatgrass		45
		Normal	400	Low sagebrush		25
		Unfavorable	300	Other perennial forbs		10
				Other perennial grasses		10
				Other shrubs		5
				Winterfat		5
109: Lacrol-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		30
		Normal	600	Bluebunch wheatgrass		15
		Unfavorable	450	Threetip sagebrush		15
				Other perennial forbs		10
				Other shrubs		10
				Bluegrass		5
				Other perennial grasses		5
Friedman-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Mountain brome		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Whortleleaf snowberry		5
110: Lag-----	DOUGLAS FIR/PINEGRASS (CDG113)	Favorable	---	Pinegrass	20	
		Normal	---	Other shrubs	15	
		Unfavorable	---	Bluebunch wheatgrass	10	
				Mountain big sagebrush	10	
				Myrtle pachystima	10	
				Idaho fescue	5	
				Blue wildrye	5	
				Heartleaf arnica	5	
				Longleaf hawksbeard	5	
				Other perennial forbs	5	
				Other perennial grasses	5	
				Whortleleaf snowberry	5	

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
111: Lag-----	DOUGLAS FIR/PINEGRASS (CDG113)	Favorable	---	Pinegrass	20	
		Normal	---	Other shrubs	15	
		Unfavorable	---	Bluebunch wheatgrass	10	
				Mountain big sagebrush	10	
				Myrtle pachystima	10	
				Idaho fescue	5	
				Blue wildrye	5	
				Heartleaf arnica	5	
				Longleaf hawksbeard	5	
				Other perennial forbs	5	
				Other perennial grasses	5	
Whortleleaf snowberry	5					
112: Lag-----	DOUGLAS FIR/PINEGRASS (CDG113)	Favorable	---	Pinegrass	20	
		Normal	---	Other shrubs	15	
		Unfavorable	---	Bluebunch wheatgrass	10	
				Mountain big sagebrush	10	
				Myrtle pachystima	10	
				Idaho fescue	5	
				Blue wildrye	5	
				Heartleaf arnica	5	
				Longleaf hawksbeard	5	
				Other perennial forbs	5	
				Other perennial grasses	5	
Whortleleaf snowberry	5					
Klug-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		35
		Normal	600	Threetip sagebrush		20
		Unfavorable	450	Bluebunch wheatgrass		10
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Lupine		5
				Mountain big sagebrush		5
				Other perennial forbs		5
Prairie Junegrass		5				
113: Langer-----	SOUTH SLOPE LOAMY 13-16 ARTRV/FEID (043AY013ID)	Favorable	1,300	Idaho fescue		35
		Normal	900	Bluebunch wheatgrass		20
		Unfavorable	400	Mountain big sagebrush		20
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
Other perennial grasses		5				
Other shrubs		5				
114: Leadore-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
Phlox		5				

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre		Pct	Pct
115: Leatherman-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		38
		Normal	350	Low sagebrush		30
		Unfavorable	200	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Wheatgrass		2
Arbus-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	350	Low sagebrush		30
		Unfavorable	200	Other shrubs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Indian ricegrass		3
				Wheatgrass		2
116: Leatherman-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		38
		Normal	350	Low sagebrush		30
		Unfavorable	200	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Wheatgrass		2
Bluedome-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		45
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial forbs		5
117: Lemco-----	DOUGLAS FIR/PINEGRASS (CDG113)	Favorable	---	Pinegrass	20	
		Normal	---	Idaho fescue	10	
		Unfavorable	---	Bluebunch wheatgrass	10	
				Mountain big sagebrush	10	
				Other perennial forbs	10	
				Other shrubs	10	
				Blue wildrye	5	
				Heartleaf arnica	5	
				Longleaf hawksbeard	5	
				Mountain brome	5	
				Other perennial grasses	5	
				Whortleleaf snowberry	5	
Friedman-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Mountain brome		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Whortleleaf snowberry		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
118: Lemhi-----	SEMIWET MEADOW (R012XY039ID)	Favorable	3,000	Sedge		20
		Normal	2,250	Slender wheatgrass		20
		Unfavorable	1,200	Basin wildrye		10
				Western wheatgrass		10
				Woods' rose		5
				Cinquefoil		5
				Clover		5
				Mountain brome		5
Copperbasin----	SEMIWET MEADOW CAREX (R012XY023ID)	Favorable	1,500	Sedge		30
		Normal	1,100	Wheatgrass		25
		Unfavorable	650	Basin wildrye		10
				Other perennial forbs		10
				Willow		5
Lilylake-----	RIPARIAN WET MEADOW SALIX/CAREX (R012XY045ID)	Favorable	3,600	Beaked sedge		20
		Normal	2,800	Water sedge		20
		Unfavorable	2,000	Willow		20
				Baltic rush		10
				Other perennial grasses		5
119: Lemroi. Leecreek.						
120: Lemroi. Leecreek.						
Grandjean-----	WET MEADOW (MUCK) SALIX/CAREX (043AY014ID)	Favorable	4,000	Beaked sedge		30
		Normal	3,500	Water sedge		20
		Unfavorable	3,000	Willow		15
				Sedge		10
				Baltic rush		5
				Bluejoint		5
				Other perennial grasses		5
				Other shrubs		5
121: Lesbut-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	350	Low sagebrush		40
		Unfavorable	200	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
122: Lilylake-----	WET MEADOW (MUCK) SALIX/CAREX (043AY014ID)	Favorable	4,000	Beaked sedge		30
		Normal	3,500	Water sedge		20
		Unfavorable	3,000	Willow		15
				Sedge		10
				Baltic rush		5
				Bluejoint		5
				Other perennial forbs		5
				Other perennial grasses		5
				Western polemonium		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
122: Grandjean-----	WET MEADOW (MUCK) SALIX/CAREX (043AY014ID)	Favorable	4,000	Beaked sedge		30
		Normal	3,500	Water sedge		20
		Unfavorable	3,000	Willow		15
				Sedge		10
				Baltic rush		5
				Bluejoint		5
				Other perennial grasses		5
Other shrubs		5				
123: Mahaffey-----	RIVERBOTTOM 10-16 POPUL/PASM (R012XY042ID)	Favorable	2,000	Black cottonwood		15
		Normal	1,500	Basin wildrye		10
		Unfavorable	800	Other perennial forbs		10
				Sedge		10
				Streambank wheatgrass		10
				Western wheatgrass		10
				Willow		10
Copperbasin----	SEMIWET MEADOW CAREX (R012XY023ID)	Favorable	1,500	Sedge		30
		Normal	1,100	Wheatgrass		25
		Unfavorable	650	Basin wildrye		10
				Other perennial forbs		10
				Willow		5
Wisconsin-----	SEMIWET MEADOW (R012XY039ID)	Favorable	3,000	Sedge		20
		Normal	2,250	Slender wheatgrass		20
		Unfavorable	1,200	Western wheatgrass		10
				Basin wildrye		5
				Cinquefoil		5
				Clover		5
				Mountain brome		5
Shrubby cinquefoil		5				
Tufted hairgrass		5				
124: Meegernot-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Columbia needlegrass		5
				Arrowleaf balsamroot		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
				Other perennial grasses		5
Other shrubs		5				
Rosy pussytoes		5				
Slender wheatgrass		5				
Whortleleaf snowberry		5				
125: Meegero-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Mountain brome		5
				Other perennial forbs		5
Other perennial grasses		5				
Other shrubs		5				
Whortleleaf snowberry		5				

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition		
		Kind of year	Dry		Forest	Range	
			Weight				Pct
			Lb/acre				
125: Zeale-----	CLAYEY 13-16 ARAR8/FEID (R012XY020ID)	Favorable	700	Idaho fescue		30	
		Normal	400	Bluebunch wheatgrass		20	
		Unfavorable	250	Low sagebrush			20
				Hood's phlox			5
				Hooker's balsamroot			5
				Sandberg bluegrass			5
				Other perennial forbs			5
				Other shrubs			5
				Prairie Junegrass			5
126: Millhi-----	CLAYEY 7-10 ARTRW8-ATCO/PSSP6 (R012XY036ID)	Favorable	600	Bluebunch wheatgrass		25	
		Normal	350	Wyoming big sagebrush		20	
		Unfavorable	250	Indian ricegrass			10
				Other perennial grasses			10
				Shadscale saltbush			10
				Needleandthread			5
				Other perennial forbs			5
				Salmon wildrye			5
				Sand dropseed			5
127: Millhi-----	CLAYEY 7-10 ARTRW8-ATCO/PSSP6 (R012XY036ID)	Favorable	600	Bluebunch wheatgrass		25	
		Normal	350	Wyoming big sagebrush		20	
		Unfavorable	250	Indian ricegrass			10
				Other perennial grasses			10
				Shadscale saltbush			10
				Needleandthread			5
				Other perennial forbs			5
				Salmon wildrye			5
				Sand dropseed			5
128: Millhi-----	CLAYEY 7-10 ARTRW8-ATCO/PSSP6 (R012XY036ID)	Favorable	600	Bluebunch wheatgrass		25	
		Normal	350	Wyoming big sagebrush		20	
		Unfavorable	250	Indian ricegrass			10
				Other perennial grasses			10
				Shadscale saltbush			10
				Needleandthread			5
				Other perennial forbs			5
				Salmon wildrye			5
				Sand dropseed			5
Millhi, eroded--	FRAGILE LANDS 7-9 ATCO/LESAS2 (R012XY019ID)	Favorable	300	Shadscale saltbush		20	
		Normal	150	Indian ricegrass		15	
		Unfavorable	75	Hood's phlox			10
				Sandberg bluegrass			10
				Bottlebrush squirreltail			10
				Bud sagebrush			10
				Wyoming big sagebrush			5
				Bluebunch wheatgrass			5
				Other perennial forbs			5
				Other shrubs			5
				Woollypod milkvetch			5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
129: Millhi-----	CLAYEY 7-10 ARTRW8-ATCO/PSSP6 (R012XY036ID)	Favorable	600	Bluebunch wheatgrass		25
		Normal	350	Wyoming big sagebrush		20
		Unfavorable	250	Indian ricegrass		10
				Other perennial grasses		10
				Shadscale saltbush		10
				Needleandthread		5
				Other perennial forbs		5
				Salmon wildrye		5
				Sand dropseed		5
Badland.						
130: Millhi-----	CLAYEY 7-10 ARTRW8-ATCO/PSSP6 (R012XY036ID)	Favorable	600	Bluebunch wheatgrass		25
		Normal	350	Wyoming big sagebrush		20
		Unfavorable	250	Indian ricegrass		10
				Other perennial grasses		10
				Shadscale saltbush		10
				Needleandthread		5
				Other perennial forbs		5
				Salmon wildrye		5
				Sand dropseed		5
Lacrol-----		NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue	
	Normal		600	Bluebunch wheatgrass		15
	Unfavorable		450	Threetip sagebrush		15
				Other perennial forbs		10
				Other shrubs		10
				Bluegrass		5
			Other perennial grasses		5	
131: Misfire-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
			Phlox		5	
Pattee-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Bluebunch wheatgrass		30
		Normal	700	Wyoming big sagebrush		20
		Unfavorable	300	Nevada bluegrass		5
				Arrowleaf balsamroot		5
				Buckwheat		5
				Lupine		5
				Rabbitbrush		5
				Wheatgrass		5
Dawtonia-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
			Salmon wildrye		5	

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			Pct
			Lb/acre			
132: Mitring-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	400	Indian ricegrass		20
		Unfavorable	200	Bottlebrush squirreltail		15
				Needleandthread		15
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
Holinrock-----	DRY LOAMY 7-10 ATCO-ARFR4/PSSP6 (R012XY026ID)	Favorable	500	Bluebunch wheatgrass		40
		Normal	300	Needleandthread		15
		Unfavorable	100	Other perennial grasses		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Fringed sagewort		5
				Other perennial forbs		5
				Other shrubs		5
				Shadscale saltbush		5
133: Mogg-----	SHALLOW FRACTURED SOUTH 8-12 ARTRW8/PSSP6 (R012XY031ID)	Favorable	650	Bluebunch wheatgrass		25
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other shrubs		5
				Salmon wildrye		5
				Thickspike wheatgrass		5
			Western wheatgrass		5	
Dawtonia-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
			Phlox		5	
			Salmon wildrye		5	
134: Mooretown-----	SEMIWET MEADOW CAREX (R012XY023ID)	Favorable	1,800	Sedge		25
		Normal	1,100	Mountain brome		15
		Unfavorable	650	Rocky Mountain iris		5
				Woods' rose		5
				Clover		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Tufted hairgrass		5
				Wheatgrass		5
				Willow		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
134: Blackfoot-----	SEMIWET MEADOW (R012XY039ID)	Favorable	4,000	Sedge		20
		Normal	2,250	Mountain brome		10
		Unfavorable	1,600	Tufted hairgrass		10
				Basin wildrye		5
				Cinquefoil		5
				Clover		5
				Redtop		5
				Shrubby cinquefoil		5
Borah-----	WET MEADOW (R012XY038ID)	Favorable	4,500	Sedge		25
		Normal	3,600	Nebraska sedge		20
		Unfavorable	3,000	Tufted hairgrass		20
				Nevada bluegrass		5
				Woods' rose		5
				Cinquefoil		5
				Lupine		5
				Western wheatgrass		5
				Willow		5
				Yarrow		5
135: Mooretown-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	900	Western wheatgrass		30
		Normal	500	Basin big sagebrush		25
		Unfavorable	300	Other perennial grasses		10
				Other shrubs		10
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Basin wildrye		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
Borco-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	800	Western wheatgrass		30
		Normal	400	Basin big sagebrush		25
		Unfavorable	300	Other perennial grasses		10
				Other shrubs		10
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Basin wildrye		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
136: Morphey.						
137: Morphey.						
138: Mountainboy-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	750	Bluebunch wheatgrass		40
		Normal	400	Low sagebrush		30
		Unfavorable	300	Hood's phlox		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Prairie Junegrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			Pct
			Lb/acre			
139: Mountainboy-----	CLAYEY 13-16 ARAR8/FEID (R012XY020ID)	Favorable	700	Idaho fescue		30
		Normal	400	Bluebunch wheatgrass		20
		Unfavorable	250	Low sagebrush		20
				Hood's phlox		5
				Hooker's balsamroot		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
Prairie Junegrass		5				
140: Nicholia-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		45
		Normal	400	Low sagebrush		30
		Unfavorable	300	Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
Goosebury-----	WINDSWEPT 8-11 SPAR2-ARFR4/POSE- HECOC8 (R012XY006ID)	Favorable	275	Fringed sagewort		20
		Normal	100	Sandberg bluegrass		15
		Unfavorable	75	Nuttall tansy		10
				Bottlebrush squirreltail		10
				Other perennial forbs		10
				Sagebrush		10
				Indian ricegrass		5
				Bluebunch wheatgrass		5
				Needleandthread		5
				Other perennial grasses		5
141: Nielsen-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		45
		Normal	600	Threetip sagebrush		15
		Unfavorable	450	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Milkvetch		5
				Other perennial forbs		5
Other perennial grasses		5				
Other shrubs		5				
Phlox		5				
Gaciba-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		45
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other shrubs		5
Salmon wildrye		5				
142: Nitchly-----	LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	700	Bluebunch wheatgrass		40
		Normal	400	Black sagebrush		25
		Unfavorable	300	Other perennial forbs		10
				Other perennial grasses		10
				Other shrubs		10
				Sandberg bluegrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
142: Skibo-----	STEEP LIMESTONE 16-22 CELE3/FEID (R012XY016ID)	Favorable	600	Idaho fescue		25
		Normal	400	Curleaf mountain mahogany		20
		Unfavorable	200	Bluebunch wheatgrass		10
				Mountain big sagebrush		10
				Hood's phlox		5
				Nevada bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5
	Rock outcrop.					
143: Nurkey-----	LOAMY 12-16 ARTRV/PSSP6 (R012XY027ID)	Favorable	1,600	Bluebunch wheatgrass		35
		Normal	1,200	Mountain big sagebrush		10
		Unfavorable	800	Nevada bluegrass		5
				Sandberg bluegrass		5
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Lupine		5
				Other perennial forbs		5
				Prairie Junegrass		5
Zeebar-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Other perennial forbs		10
				Arrowleaf balsamroot		5
				Mountain brome		5
				Other perennial grasses		5
				Other shrubs		5
				Slender wheatgrass		5
Hutchley-----	CLAYEY SOUTH SLOPE 12-16 ARAR8/PSSP6 (R012XY029ID)	Favorable	750	Low sagebrush		30
		Normal	425	Bluebunch wheatgrass		25
		Unfavorable	300	Hooker's balsamroot		10
				Other perennial grasses		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Dwarf green rabbitbrush		5
				Other perennial forbs		5
				Other shrubs		5
144: Nurkey-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	950	Bluebunch wheatgrass		35
		Normal	700	Thurber needlegrass		15
		Unfavorable	350	Wyoming big sagebrush		15
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
Dacont-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	600	Bluebunch wheatgrass		55
		Normal	450	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Salmon wildrye		5
				Western wheatgrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight Lb/acre		Forest	Range
145: Nurkey-----	LOAMY 12-16 ARTRV/PSSP6 (R012XY027ID)	Favorable	1,600	Bluebunch wheatgrass		35
		Normal	1,200	Mountain big sagebrush		10
		Unfavorable	800	Nevada bluegrass		5
				Sandberg bluegrass		5
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Lupine		5
				Other perennial forbs		5
				Prairie Junegrass		5
Dacont-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	600	Bluebunch wheatgrass		55
		Normal	450	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Salmon wildrye		5
			Western wheatgrass		5	
146: Nurkey-----	DRY GRAVELLY 13-16 ARTR4/PSSP6 (R012XY008ID)	Favorable	900	Bluebunch wheatgrass		45
		Normal	500	Threetip sagebrush		20
		Unfavorable	300	Idaho fescue		5
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Prairie Junegrass		5
				Rabbitbrush		5
Dawtonia-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
			Salmon wildrye		5	
147: Oxhead-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Bluebunch wheatgrass		30
		Normal	700	Wyoming big sagebrush		25
		Unfavorable	300	Indian ricegrass		8
				Other perennial grasses		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Longleaf hawksbeard		5
				Milkvetch		5
			Other shrubs		5	
148: Packham-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
149: Packham-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
		Normal	550	Bluebunch wheatgrass		20
		Unfavorable	300	Indian ricegrass		8
				Needleandthread		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Milkvetch		5
				Sand dropseed		5
				Sandwort		5
150: Packmo-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
Leadore-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Phlox		5
151: Packmo-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
Whiteknob-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	600	Bluebunch wheatgrass		45
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
152: Pahsimeroi-----	LOAMY 7-10 ARTRW8/POSE-HECOC8 (R012XY030ID)	Favorable	500	Wyoming big sagebrush		35
		Normal	300	Sandberg bluegrass		20
		Unfavorable	175	Indian ricegrass		10
				Bottlebrush squirreltail		10
				Other perennial forbs		10
				Needleandthread		5
				Other perennial grasses		5
				Other shrubs		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
		Lb/acre		Pct Pct		
153: Pahsimeroi-----	LOAMY 7-10 ARTRW8/POSE-HECOC8 (R012XY030ID)	Favorable	500	Wyoming big sagebrush		35
		Normal	300	Sandberg bluegrass		20
		Unfavorable	175	Indian ricegrass		10
				Bottlebrush squirreltail		10
				Other perennial forbs		10
				Needleandthread		5
				Other perennial grasses		5
				Other shrubs		5
154: Pahsimeroi-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other shrubs		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Bottlebrush squirreltail		5
				Other perennial forbs		5
				Other perennial grasses		5
				Phlox		5
155: Paint-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		25
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
Paint, cold-----	WINDSWEPT 8-11 SPAR2-ARFR4/POSE- HECOC8 (R012XY006ID)	Favorable	275	Sandberg bluegrass		15
		Normal	150	Fringed sagewort		15
		Unfavorable	75	Needleandthread		15
				Hood's phlox		10
				Bottlebrush squirreltail		10
				Other perennial forbs		10
				Other shrubs		10
				Indian ricegrass		5
				Other perennial grasses		5
				Bluebunch wheatgrass		3
				Wyoming big sagebrush		2
156: Paint-----	LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	600	Bluebunch wheatgrass		40
		Normal	400	Black sagebrush		25
		Unfavorable	200	Other perennial forbs		10
				Other perennial grasses		10
				Other shrubs		10
				Sandberg bluegrass		5
Bluedome-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		45
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial forbs		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
157: Paint-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		25
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
Whitecloud-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	600	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
158: Parkay-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Mountain brome		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Whortleleaf snowberry		5
Donkehill-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	500	Bluebunch wheatgrass		45
		Normal	350	Low sagebrush		35
		Unfavorable	275	Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Prairie Junegrass		5
159: Parkay-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	800	Idaho fescue		30
		Normal	600	Threetip sagebrush		20
		Unfavorable	300	Bluebunch wheatgrass		15
				Nevada bluegrass		5
				Arrowleaf balsamroot		5
				Mountain big sagebrush		5
Nurkey-----	DRY GRAVELLY 13-16 ARTR4/PSSP6 (R012XY008ID)	Favorable	900	Bluebunch wheatgrass		45
		Normal	500	Threetip sagebrush		20
		Unfavorable	300	Idaho fescue		5
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Prairie Junegrass		5
				Rabbitbrush		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
160: Parkay-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Mountain brome		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Whortleleaf snowberry		5
Nurkey-----	LOAMY 12-16 ARTRV/PSSP6 (R012XY027ID)	Favorable	1,600	Bluebunch wheatgrass		35
		Normal	1,200	Mountain big sagebrush		10
		Unfavorable	800	Nevada bluegrass		5
				Sandberg bluegrass		5
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Lupine		5
				Other perennial forbs		5
				Prairie Junegrass		5
				161: Parkay-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable
Normal	800	Mountain big sagebrush				15
Unfavorable	500	Bluebunch wheatgrass				10
		Arrowleaf balsamroot				5
		Longleaf hawksbeard				5
		Mountain brome				5
		Other perennial forbs				5
		Other perennial grasses				5
		Other shrubs				5
		Whortleleaf snowberry				5
Zeebar-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	1,100	Idaho fescue		35
		Normal	900	Threetip sagebrush		20
		Unfavorable	600	Bluebunch wheatgrass		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Mountain big sagebrush		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5
				162: Parkay-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable
Normal	800	Mountain big sagebrush				15
Unfavorable	500	Bluebunch wheatgrass				10
		Arrowleaf balsamroot				5
		Longleaf hawksbeard				5
		Mountain brome				5
		Other perennial forbs				5
		Other perennial grasses				5
		Other shrubs				5
		Whortleleaf snowberry				5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition					
		Kind of year	Dry		Forest	Range				
			Weight				Pct	Pct		
			Lb/acre							
162: Friedman-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40				
		Normal	800	Mountain big sagebrush		15				
		Unfavorable	500	Bluebunch wheatgrass		10				
				Arrowleaf balsamroot		5				
				Longleaf hawksbeard		5				
				Mountain brome		5				
				Other perennial forbs		5				
				Other perennial grasses		5				
				Other shrubs		5				
				Whortleleaf snowberry		5				
163: Pattee-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Bluebunch wheatgrass		30				
		Normal	700	Wyoming big sagebrush		20				
		Unfavorable	300	Nevada bluegrass		5				
				Arrowleaf balsamroot		5				
				Buckwheat		5				
				Lupine		5				
				Rabbitbrush		5				
				Wheatgrass		5				
				164: Pattee-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Bluebunch wheatgrass		30
						Normal	700	Wyoming big sagebrush		20
Unfavorable	300	Nevada bluegrass				5				
		Arrowleaf balsamroot				5				
		Buckwheat				5				
		Lupine				5				
		Rabbitbrush				5				
		Wheatgrass				5				
		164: Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)			Favorable	750	Wyoming big sagebrush		20
						Normal	550	Bluebunch wheatgrass		20
Unfavorable	300			Indian ricegrass		8				
				Needleandthread		7				
				Sandberg bluegrass		5				
				Green rabbitbrush		5				
				Milkvetch		5				
				Sand dropseed		5				
				Sandwort		5				
				164: Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
Normal	550	Bluebunch wheatgrass				20				
Unfavorable	300	Indian ricegrass				8				
		Needleandthread				7				
		Sandberg bluegrass				5				
		Green rabbitbrush				5				
		Milkvetch				5				
		Sand dropseed				5				
		Sandwort				5				

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
165: Pedoli-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Wyoming big sagebrush		25
		Normal	700	Bluebunch wheatgrass		20
		Unfavorable	300	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Needleandthread		5
				Other perennial forbs		5
Other shrubs		5				
Winterfat		5				
Dawtonia-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY04ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
Salmon wildrye		5				
166: Pedoli-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Wyoming big sagebrush		25
		Normal	700	Bluebunch wheatgrass		20
		Unfavorable	300	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Needleandthread		5
				Other perennial forbs		5
Other shrubs		5				
Winterfat		5				
Whiteknob-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY04ID)	Favorable	600	Bluebunch wheatgrass		45
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
167: Penagul-----	FRAGILE LANDS 7-9 ATCO/LESAS2 (R012XY019ID)	Favorable	350	Salmon wildrye		40
		Normal	200	Shadscale saltbush		15
		Unfavorable	75	Hood's phlox		10
				Indian ricegrass		10
				Other perennial grasses		10
				Other shrubs		10
Other perennial forbs		5				

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
167: Rosebriar-----	FLAGSTONE 8-11 ARTRW8/LESAS2 (R012XY017ID)	Favorable	500	Wyoming big sagebrush		35
		Normal	300	Salmon wildrye		35
		Unfavorable	175	Sandberg bluegrass		5
				Bluebunch wheatgrass		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
	Phlox		5			
168: Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
		Normal	550	Bluebunch wheatgrass		20
		Unfavorable	300	Indian ricegrass		8
				Needleandthread		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Milkvetch		5
				Sand dropseed		5
	Sandwort		5			
169: Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
		Normal	550	Bluebunch wheatgrass		20
		Unfavorable	300	Indian ricegrass		8
				Needleandthread		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Milkvetch		5
				Sand dropseed		5
	Sandwort		5			
170: Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
		Normal	550	Bluebunch wheatgrass		20
		Unfavorable	300	Indian ricegrass		8
				Needleandthread		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Milkvetch		5
				Sand dropseed		5
	Sandwort		5			
171: Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
		Normal	550	Bluebunch wheatgrass		20
		Unfavorable	300	Indian ricegrass		8
				Needleandthread		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Milkvetch		5
				Sand dropseed		5
	Sandwort		5			
Dawtonia-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
	Phlox		5			
	Salmon wildrye		5			

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
172: Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
		Normal	550	Bluebunch wheatgrass		20
		Unfavorable	300	Indian ricegrass		8
				Needleandthread		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Milkvetch		5
				Sand dropseed		5
				Sandwort		5
Dawtonia-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
				Salmon wildrye		5
173: Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
		Normal	550	Bluebunch wheatgrass		20
		Unfavorable	300	Indian ricegrass		8
				Needleandthread		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Milkvetch		5
				Sand dropseed		5
				Sandwort		5
Pattee-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Bluebunch wheatgrass		30
		Normal	700	Wyoming big sagebrush		20
		Unfavorable	300	Nevada bluegrass		5
				Arrowleaf balsamroot		5
				Buckwheat		5
				Lupine		5
				Rabbitbrush		5
				Wheatgrass		5
174: Pits, gravel.						
175: Pits, mine.						
176: Povey-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		45
		Normal	800	Mountain big sagebrush		20
		Unfavorable	500	Bluebunch wheatgrass		10
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Big bluegrass		5
				Slender wheatgrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition					
		Kind of year	Dry		Forest	Range				
			Weight				Pct	Pct		
			Lb/acre							
177: Povey-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		45				
		Normal	800	Mountain big sagebrush		20				
		Unfavorable	500	Bluebunch wheatgrass		10				
				Sandberg bluegrass		5				
				Antelope bitterbrush		5				
				Arrowleaf balsamroot		5				
				Slender wheatgrass		5				
		Klug-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,300	Idaho fescue		30		
				Normal	900	Bluebunch wheatgrass		20		
Unfavorable	400			Mountain big sagebrush		20				
				Sandberg bluegrass		5				
				Antelope bitterbrush		5				
				Arrowleaf balsamroot		5				
				Other perennial forbs		5				
				Prairie Junegrass		5				
				Threetip sagebrush		5				
178: Reck-----	CLAYEY 12-16 ARARL/FEID (R012XY034ID)	Favorable	1,050	Idaho fescue		25				
		Normal	650	Alkali sagebrush		20				
		Unfavorable	400	Bluebunch wheatgrass		15				
				Other perennial forbs		15				
				Nevada bluegrass		5				
				Bottlebrush squirreltail		5				
				Low sagebrush		5				
				Other perennial grasses		5				
				Other shrubs		5				
				Threedot-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,600	Idaho fescue		30
						Normal	1,000	Other perennial forbs		15
						Unfavorable	700	Other perennial grasses		15
Mountain big sagebrush		10								
Columbia needlegrass		5								
Bluebunch wheatgrass		5								
Cinquefoil		5								
179: Redfish-----	WET MEADOW (043AY007ID)	Favorable	4,500	Sedge		25				
		Normal	3,600	Tufted hairgrass		20				
		Unfavorable	3,000	Nebraska sedge		15				
				Other perennial grasses		10				
				Alpine timothy		5				
				Cinquefoil		5				
				Clover		5				
				Other perennial forbs		5				
				Other shrubs		5				
				Redtop		5				
				Rush		5				
				Willow		5				
Fezip-----	WET MEADOW (043AY007ID)	Favorable	4,000	Water sedge		25				
		Normal	3,500	Beaked sedge		20				
		Unfavorable	3,000	Willow		20				
				Sedge		10				
				Baltic rush		5				
				Other perennial forbs		5				
				Other perennial grasses		5				
Tufted hairgrass		5								
Western polemonium		5								

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
179: Lilylake-----	WET MEADOW (MUCK) SALIX/CAREX (043AY014ID)	Favorable	4,000	Beaked sedge		30
		Normal	3,500	Water sedge		20
		Unfavorable	3,000	Willow		15
				Sedge		10
				Baltic rush		5
				Bluejoint		5
				Other perennial forbs		5
				Other perennial grasses		5
				Western polemonium		5
180: Resoot-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,300	Idaho fescue		30
		Normal	900	Bluebunch wheatgrass		20
		Unfavorable	400	Mountain big sagebrush		20
				Sandberg bluegrass		5
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Other perennial forbs		5
				Prairie Junegrass		5
				Threetip sagebrush		5
Friedman-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Mountain brome		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Whortleleaf snowberry		5
181: Resoot-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	1,000	Idaho fescue		35
		Normal	700	Threetip sagebrush		20
		Unfavorable	500	Bluebunch wheatgrass		10
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Mountain big sagebrush		5
				Other perennial forbs		5
				Prairie Junegrass		5
Friedman-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Mountain brome		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Whortleleaf snowberry		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition					
		Kind of year	Dry		Forest	Range				
			Weight				Pct	Pct		
			Lb/acre							
182: Ringle-----	GRAVELLY 7-10 ATCO/SPCR (R012XY041ID)	Favorable	400	Shadscale saltbush		30				
		Normal	225	Sand dropseed		20				
		Unfavorable	150	Indian ricegrass		10				
				Swallen's needlegrass		5				
				Sandberg bluegrass		5				
				Bottlebrush squirreltail		5				
				Bud sagebrush		5				
				Other perennial forbs		5				
				Other perennial grasses		5				
				Other shrubs		5				
				Phlox		5				
183: Rock outcrop. Rubble land.										
184: Sanfelipe-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	900	Bluebunch wheatgrass		35				
		Normal	700	Wyoming big sagebrush		25				
		Unfavorable	300	Other perennial forbs		10				
				Hood's phlox		5				
				Sandberg bluegrass		5				
				Other perennial grasses		5				
				Other shrubs		5				
				Sanfelipe, moist	DRY GRAVELLY 13-16 ARTR4/PSSP6 (R012XY008ID)	Favorable	900	Bluebunch wheatgrass		45
						Normal	500	Threetip sagebrush		20
						Unfavorable	300	Other shrubs		10
Hood's phlox		5								
Idaho fescue		5								
Sandberg bluegrass		5								
Other perennial forbs		5								
		Other perennial grasses		5						
185: Shenon-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		35				
		Normal	750	Wyoming big sagebrush		20				
		Unfavorable	450	Sandberg bluegrass		10				
				Thurber needlegrass		10				
				Other perennial grasses		10				
				Other perennial forbs		5				
				Other shrubs		5				
				Phlox		5				
				186: Shenon-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		35
						Normal	750	Wyoming big sagebrush		20
Unfavorable	450	Sandberg bluegrass				10				
		Thurber needlegrass		10						
		Other perennial grasses		10						
		Other perennial forbs		5						
		Other shrubs		5						
		Phlox		5						

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
187: Shenon-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		35
		Normal	750	Wyoming big sagebrush		20
		Unfavorable	450	Sandberg bluegrass		10
				Thurber needlegrass		10
				Other perennial grasses		10
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
		Normal	550	Bluebunch wheatgrass		20
		Unfavorable	300	Indian ricegrass		8
				Needleandthread		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Milkvetch		5
				Sand dropseed		5
				Sandwort		5
188: Shenon-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		35
		Normal	750	Wyoming big sagebrush		20
		Unfavorable	450	Sandberg bluegrass		10
				Thurber needlegrass		10
				Other perennial grasses		10
				Other perennial forbs		5
				Other shrubs		5
				Phlox		5
Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
		Normal	550	Bluebunch wheatgrass		20
		Unfavorable	300	Indian ricegrass		8
				Needleandthread		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Milkvetch		5
				Sand dropseed		5
				Sandwort		5
189: Simeroi-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
190: Simeroi-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition			
		Kind of year	Dry		Forest	Range		
			Weight				Pct	Pct
			Lb/acre					
191: Simeroi, cold---	WINDSWEPT 8-11 SPAR2-ARFR4/POSE- HECOC8 (R012XY006ID)	Favorable	300	Hood's phlox		15		
		Normal	200	Sandberg bluegrass		15		
		Unfavorable	100	Nuttall tansy		10		
				Fringed sagewort		10		
				Needleandthread		10		
				Other perennial forbs		10		
				Indian ricegrass		5		
				Wyoming big sagebrush		5		
				Bottlebrush squirreltail		5		
				Buckwheat		5		
				Other perennial grasses		5		
		Simeroi-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
Normal	400			Wyoming big sagebrush		20		
Unfavorable	250			Hood's phlox		5		
				Indian ricegrass		5		
				Sandberg bluegrass		5		
				Needleandthread		5		
				Other perennial forbs		5		
				Other perennial grasses		5		
192: Simeroi-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40		
		Normal	400	Wyoming big sagebrush		20		
		Unfavorable	250	Hood's phlox		5		
				Indian ricegrass		5		
				Sandberg bluegrass		5		
				Needleandthread		5		
				Other perennial forbs		5		
				Other perennial grasses		5		
		Paint-----	LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	600	Bluebunch wheatgrass		40
				Normal	400	Black sagebrush		25
				Unfavorable	200	Other perennial forbs		10
						Other perennial grasses		10
				Other shrubs		10		
Sanfelipe-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		50		
		Normal	400	Wyoming big sagebrush		20		
		Unfavorable	250	Hood's phlox		5		
				Sandberg bluegrass		5		
				Arrowleaf balsamroot		5		
				Buckwheat		5		
				Other perennial grasses		5		
				Other shrubs		5		
		193: Simeroi-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
				Normal	400	Wyoming big sagebrush		20
Unfavorable	250			Hood's phlox		5		
				Indian ricegrass		5		
				Sandberg bluegrass		5		
				Needleandthread		5		
				Other perennial forbs		5		
				Other perennial grasses		5		

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
193: Whitecloud-----	WINDSWEPT 8-11 SPAR2-ARFR4/POSE- HECOC8 (R012XY006ID)	Favorable	300	Hood's phlox		15
		Normal	150	Indian ricegrass		10
		Unfavorable	100	Nuttall tansy		10
				Sandberg bluegrass		10
				Bottlebrush squirreltail		10
				Fringed sagewort		10
				Needleandthread		10
				Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Winterfat		5
194: Skibo-----	STEEP LIMESTONE 16-22 CELE3/FEID (R012XY016ID)	Favorable	600	Idaho fescue		25
		Normal	400	Curlleaf mountain mahogany		20
		Unfavorable	200	Bluebunch wheatgrass		10
				Mountain big sagebrush		10
				Hood's phlox		5
				Nevada bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5
195: Smout-----	RIVERBOTTOM 10-16 POPUL/PASM (R012XY042ID)	Favorable	2,000	Black cottonwood		15
		Normal	1,500	Western wheatgrass		15
		Unfavorable	800	Basin wildrye		10
				Other perennial forbs		10
				Western wheatgrass		10
				Woods' rose		5
				Bluebunch wheatgrass		5
				Willow		5
Cowbone-----	RIVERBOTTOM 10-16 POPUL/PASM (R012XY042ID)	Favorable	2,000	Black cottonwood		15
		Normal	1,500	Western wheatgrass		15
		Unfavorable	1,000	Basin wildrye		10
				Other perennial forbs		10
				Slimstem reedgrass		10
				Woods' rose		5
				Willow		5
196: Smout-----	RIVERBOTTOM 10-16 POPUL/PASM (R012XY042ID)	Favorable	2,000	Black cottonwood		15
		Normal	1,500	Western wheatgrass		15
		Unfavorable	800	Basin wildrye		10
				Other perennial forbs		10
				Western wheatgrass		10
				Woods' rose		5
				Bluebunch wheatgrass		5
				Willow		5
Yearian-----	WET MEADOW (R012XY038ID)	Favorable	4,800	Sedge		30
		Normal	3,600	Nebraska sedge		15
		Unfavorable	2,800	Tufted hairgrass		15
				Baltic rush		5
				Cinquefoil		5
				Clover		5
				Small camas		5
				Willow		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
197: Snowslide-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	350	Indian ricegrass		15
		Unfavorable	200	Bottlebrush squirreltail		10
				Needleandthread		10
				Other shrubs		10
				Sandberg bluegrass		5
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Sand dropseed		5
198: Snowslide-----	GRAVELLY 7-10 ATCO/SPCR (R012XY041ID)	Favorable	400	Shadscale saltbush		30
		Normal	225	Sand dropseed		20
		Unfavorable	150	Indian ricegrass		10
				Other perennial forbs		10
				Other perennial grasses		10
				Sandberg bluegrass		5
				Bottlebrush squirreltail		5
				Bud sagebrush		5
				Other shrubs		5
199: Snowslide-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	350	Indian ricegrass		15
		Unfavorable	200	Bottlebrush squirreltail		10
				Needleandthread		10
				Other shrubs		10
				Sandberg bluegrass		5
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Sand dropseed		5
200: Snowslide-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	350	Indian ricegrass		15
		Unfavorable	200	Bottlebrush squirreltail		10
				Needleandthread		10
				Other shrubs		10
				Sandberg bluegrass		5
				Alkali cordgrass		5
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
Badland. Perreau-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	750	Wyoming big sagebrush		20
		Normal	550	Bluebunch wheatgrass		20
		Unfavorable	300	Indian ricegrass		8
				Needleandthread		7
				Sandberg bluegrass		5
				Green rabbitbrush		5
				Milkvetch		5
				Sand dropseed		5
				Sandwort		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
201: Snowslide-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	350	Indian ricegrass		15
		Unfavorable	200	Bottlebrush squirreltail		10
				Needleandthread		10
				Other shrubs		10
				Sandberg bluegrass		5
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Sand dropseed		5
Farvant-----	FRAGILE LANDS 7-9 ATCO/LESAS2 (R012XY019ID)	Favorable	300	Salmon wildrye		30
		Normal	200	Shadscale saltbush		15
		Unfavorable	100	Indian ricegrass		10
				Other perennial forbs		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Wyoming big sagebrush		5
				Bottlebrush squirreltail		5
				Bud sagebrush		5
				Other perennial grasses		5
				Other shrubs		5
202: Snowslide, south	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	350	Indian ricegrass		15
		Unfavorable	200	Bottlebrush squirreltail		10
				Needleandthread		10
				Other shrubs		10
				Sandberg bluegrass		5
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Sand dropseed		5
Zer-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		5
				Sandberg bluegrass		5
				Salmon wildrye		5
Snowslide, north	WINDSWEPT 8-11 SPAR2-ARFR4/POSE- HECOC8 (R012XY006ID)	Favorable	275	Fringed sagewort		20
		Normal	100	Sandberg bluegrass		15
		Unfavorable	75	Nuttall tansy		10
				Bottlebrush squirreltail		10
				Other perennial forbs		10
				Sagebrush		10
				Indian ricegrass		5
				Other perennial grasses		5
				Other shrubs		5
				Winterfat		5
203: Soen-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		35
		Normal	700	Wyoming big sagebrush		15
		Unfavorable	450	Other perennial grasses		15
				Other shrubs		15
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Wheatgrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
204: Soen-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		35
		Normal	700	Wyoming big sagebrush		15
		Unfavorable	450	Other perennial grasses		15
				Other shrubs		15
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Other perennial forbs		5
				Wheatgrass		5
Justesen-----	LOAMY 11-13 ARTRW8/PSSP6 (R012XY035ID)	Favorable	1,000	Bluebunch wheatgrass		40
		Normal	700	Wyoming big sagebrush		20
		Unfavorable	450	Sandberg bluegrass		10
				Other perennial forbs		10
				Indian ricegrass		5
				Arrowleaf balsamroot		5
				Other perennial grasses		5
				Other shrubs		5
Howcan-----	LOAMY 12-16 ARTRV/PSSP6 (R012XY027ID)	Favorable	1,600	Bluebunch wheatgrass		40
		Normal	1,200	Mountain big sagebrush		15
		Unfavorable	800	Other perennial forbs		10
				Other perennial grasses		10
				Idaho fescue		5
				Arrowleaf balsamroot		5
				Big bluegrass		5
				Other shrubs		5
				Prairie Junegrass		5
205: Sparmo-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Bluebunch wheatgrass		30
		Normal	700	Wyoming big sagebrush		25
		Unfavorable	300	Hood's phlox		5
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
206: Sparmo-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Bluebunch wheatgrass		30
		Normal	700	Wyoming big sagebrush		25
		Unfavorable	300	Hood's phlox		5
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
Zer-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		5
				Sandberg bluegrass		5
				Salmon wildrye		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
207: Sparmo-----	LOAMY 8-11 ARTRW8/PSSP6 (R012XY032ID)	Favorable	900	Bluebunch wheatgrass		30
		Normal	700	Wyoming big sagebrush		25
		Unfavorable	300	Hood's phlox		5
				Sandberg bluegrass		5
				Longleaf hawksbeard		5
				Milkvetch		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
Zer-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		5
				Sandberg bluegrass		5
				Salmon wildrye		5
208: Sprabat-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	300	Indian ricegrass		20
		Unfavorable	200	Bottlebrush squirreltail		15
				Needleandthread		15
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
209: Sprabat-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	300	Indian ricegrass		20
		Unfavorable	200	Bottlebrush squirreltail		15
				Needleandthread		15
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
Snowslide-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	350	Indian ricegrass		15
		Unfavorable	200	Bottlebrush squirreltail		10
				Needleandthread		10
				Other shrubs		10
				Sandberg bluegrass		5
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Sand dropseed		5
210: Struggle-----	LODGEPOLE PINE/ELK SEDGE (CLG321)	Favorable	---	Pinegrass	35	
		Normal	---	Elk sedge	15	
		Unfavorable	---	Idaho fescue	10	
				Lodgepole pine	10	
				Other perennial grasses	10	
				Lupine	5	
				Other perennial forbs	5	
				Other shrubs	5	
				Whortleleaf snowberry	5	

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
210: Struggle, very stony-----	LODGEPOLE PINE/ELK SEDGE (CLG321)	Favorable	---	Pinegrass	35	
		Normal	---	Elk sedge	15	
		Unfavorable	---	Idaho fescue	10	
				Lodgepole pine	10	
				Other perennial grasses	10	
				Lupine	5	
				Other perennial forbs	5	
Other shrubs	5					
Whortleleaf snowberry	5					
211: Surrett-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,100	Idaho fescue		25
		Normal	850	Bluebunch wheatgrass		20
		Unfavorable	400	Mountain big sagebrush		15
				Hood's phlox		5
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Other perennial forbs		5
				Other perennial grasses		5
Other shrubs		5				
212: Surrett-----	LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	550	Bluebunch wheatgrass		50
		Normal	400	Black sagebrush		25
		Unfavorable	200	Salmon wildrye		10
				Sandberg bluegrass		5
Nurkey-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	550	Bluebunch wheatgrass		45
		Normal	400	Low sagebrush		30
		Unfavorable	200	Hood's phlox		5
213: Swahlen-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	550	Bluebunch wheatgrass		45
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	200	Hood's phlox		5
				Indian ricegrass		5
Packham-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
Sandberg bluegrass				5		
				5		
				5		
				5		
214: Swahlen-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	550	Bluebunch wheatgrass		45
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	200	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
Yearian-----	WET MEADOW (R012XY038ID)	Favorable	4,800	Sedge		30
		Normal	3,600	Nebraska sedge		15
		Unfavorable	2,800	Tufted hairgrass		15
				Baltic rush		5
				Cinquefoil		5
				Clover		5
				Small camas		5
				Willow		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition					
		Kind of year	Dry		Forest	Range				
			Weight			Pct	Pct			
			Lb/acre							
215: Thosand-----	WET MEADOW (R012XY038ID)	Favorable	4,500	Sedge		30				
		Normal	3,600	Nebraska sedge		15				
		Unfavorable	3,000	Tufted hairgrass		15				
				Baltic rush		5				
				Clover		5				
				Small camas		5				
				Willow		5				
				Chillybu-----	WET MEADOW (MUCK) SALIX/CAREX (043AY014ID)	Favorable	4,000	Beaked sedge		30
						Normal	3,500	Water sedge		20
Unfavorable	3,000	Willow				15				
		Sedge				10				
		Baltic rush				5				
		Other perennial forbs				5				
		Other perennial grasses				5				
		Tufted hairgrass				5				
		Western polemonium				5				
216: Thosand-----	SEMIWET MEADOW CAREX (R012XY023ID)	Favorable	1,500	Sedge		30				
		Normal	1,100	Wheatgrass		25				
		Unfavorable	600	Mountain brome		15				
				Basin wildrye		10				
				Nebraska sedge		5				
				Clover		5				
				Sticky geranium		5				
				Tufted hairgrass		5				
				Sancrane-----	SEMIWET MEADOW CAREX (R012XY023ID)	Favorable	1,800	Sedge		25
Normal	1,100	Wheatgrass				20				
Unfavorable	600	Mountain brome				15				
		Other shrubs				10				
		Clover				5				
		Geranium				5				
		Other perennial forbs				5				
		Other perennial grasses				5				
		Tufted hairgrass				5				
Wildrye		5								
217: Thosand-----	SEMIWET MEADOW CAREX (R012XY023ID)	Favorable	1,500	Sedge		30				
		Normal	1,100	Wheatgrass		25				
		Unfavorable	600	Mountain brome		15				
				Basin wildrye		10				
				Nebraska sedge		5				
				Clover		5				
				Sticky geranium		5				
				Tufted hairgrass		5				
				Wisconsin-----	SEMIWET MEADOW (R012XY039ID)	Favorable	3,000	Sedge		20
Normal	2,250	Slender wheatgrass				20				
Unfavorable	1,200	Western wheatgrass				10				
		Basin wildrye				5				
		Cinquefoil				5				
		Clover				5				
		Mountain brome				5				
		Shrubby cinquefoil				5				
		Tufted hairgrass				5				

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition			
		Kind of year	Dry		Forest	Range		
			Weight				Pct	Pct
			Lb/acre					
218: Threedot-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,600	Idaho fescue		30		
		Normal	1,000	Other perennial forbs		15		
		Unfavorable	700	Other perennial grasses		15		
				Mountain big sagebrush		10		
				Columbia needlegrass		5		
				Bluebunch wheatgrass		5		
				Cinquefoil		5		
				Other shrubs		5		
				Slender wheatgrass		5		
219: Threedot-----	GRAVELLY LOAM 16-22 ARTRV/FEID (043AY010ID)	Favorable	1,500	Idaho fescue		40		
		Normal	1,000	Mountain big sagebrush		20		
		Unfavorable	500	Bluebunch wheatgrass		10		
				Columbia needlegrass		5		
				Arrowleaf balsamroot		5		
				Longleaf hawksbeard		5		
				Other perennial forbs		5		
				Other perennial grasses		5		
				Other shrubs		5		
220: Threedot, dry---	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		40		
		Normal	650	Threetip sagebrush		20		
		Unfavorable	400	Other perennial forbs		10		
				Other perennial grasses		10		
				Arrowleaf balsamroot		5		
				Bluebunch wheatgrass		5		
				Other shrubs		5		
				Phlox		5		
Threedot-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,600	Idaho fescue		30		
		Normal	1,000	Other perennial forbs		15		
		Unfavorable	700	Other perennial grasses		15		
				Mountain big sagebrush		10		
				Columbia needlegrass		5		
				Bluebunch wheatgrass		5		
				Cinquefoil		5		
				Other shrubs		5		
				Slender wheatgrass		5		
221: Typic Cryaquepts	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	1,000	Western wheatgrass		50		
		Normal	600	Basin big sagebrush		20		
		Unfavorable	400	Kentucky bluegrass		5		
				Basin wildrye		5		
				Bluebunch wheatgrass		5		
				Other perennial forbs		5		
				Other perennial grasses		5		
				Rabbitbrush		5		
222: Ureal-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	800	Bluebunch wheatgrass		55		
		Normal	450	Wyoming big sagebrush		15		
		Unfavorable	300	Arrowleaf balsamroot		5		
				Other perennial forbs		5		
				Other perennial grasses		5		
				Other shrubs		5		
Salmon wildrye		5						
Western wheatgrass		5						

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
222: Zeebar-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	1,100	Idaho fescue		35
		Normal	900	Threetip sagebrush		20
		Unfavorable	600	Bluebunch wheatgrass		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Mountain big sagebrush		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5
Dacont-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	600	Bluebunch wheatgrass		55
		Normal	450	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Salmon wildrye		5
				Western wheatgrass		5
223: Venum-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	700	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
Cronks-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	650	Bluebunch wheatgrass		50
		Normal	400	Wyoming big sagebrush		15
		Unfavorable	250	Other perennial forbs		10
				Salmon wildrye		10
				Indian ricegrass		5
				Other perennial grasses		5
				Other shrubs		5
224: Venum-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	700	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
Rock outcrop.						
225: Venum-----	SOUTH SLOPE GRAVELLY 11-13 ARTRW8/PSSP6 (R012XY005ID)	Favorable	700	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	300	Other perennial grasses		10
				Other shrubs		10
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
225: Custco-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		40
		Normal	600	Threetip sagebrush		20
		Unfavorable	450	Bluebunch wheatgrass		10
				Hood's phlox		5
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Other perennial forbs		5
		Other perennial grasses		5		
		Other shrubs		5		
226: Whitecloud-----	WINDSWEPT 8-11 SPAR2-ARFR4/POSE- HECOC8 (R012XY006ID)	Favorable	300	Hood's phlox		15
		Normal	150	Indian ricegrass		10
		Unfavorable	100	Nuttall tansy		10
				Sandberg bluegrass		10
				Bottlebrush squirreltail		10
				Fringed sagewort		10
				Needleandthread		10
				Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Winterfat		5
		227: Whitecloud-----	LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	700	Bluebunch wheatgrass
Normal	400			Black sagebrush		25
Unfavorable	300			Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other perennial grasses		5
		Other shrubs		5		
228: Whitecloud-----	WINDSWEPT 8-11 SPAR2-ARFR4/POSE- HECOC8 (R012XY006ID)	Favorable	300	Hood's phlox		15
		Normal	150	Indian ricegrass		10
		Unfavorable	100	Nuttall tansy		10
				Sandberg bluegrass		10
				Bottlebrush squirreltail		10
				Fringed sagewort		10
				Needleandthread		10
				Other perennial forbs		10
				Other perennial grasses		5
				Other shrubs		5
				Winterfat		5
		Sanfelipe-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass
Normal	400			Wyoming big sagebrush		20
Unfavorable	250			Hood's phlox		5
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Buckwheat		5
		Other perennial grasses		5		
		Other shrubs		5		
Fandow-----	LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	700	Bluebunch wheatgrass		40
		Normal	400	Black sagebrush		25
		Unfavorable	300	Other perennial forbs		10
				Other perennial grasses		10
				Other shrubs		10
		Sandberg bluegrass		5		

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
229: Whitecloud-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	600	Bluebunch wheatgrass		40
Normal		400	Wyoming big sagebrush		20	
Unfavorable		250	Other perennial grasses		10	
				Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other shrubs		5
Simeroi-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
Normal		400	Wyoming big sagebrush		20	
Unfavorable		250	Hood's phlox		5	
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
230: Whiteknob-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	600	Bluebunch wheatgrass		45
Normal		400	Wyoming big sagebrush		20	
Unfavorable		250	Hood's phlox		5	
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
231: Whiteknob-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	600	Bluebunch wheatgrass		45
Normal		400	Wyoming big sagebrush		20	
Unfavorable		250	Hood's phlox		5	
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
Leadore-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
Normal		400	Wyoming big sagebrush		20	
Unfavorable		250	Indian ricegrass		5	
				Sandberg bluegrass		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Phlox		5
232: Whiteknob-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	600	Bluebunch wheatgrass		45
Normal		400	Wyoming big sagebrush		20	
Unfavorable		250	Hood's phlox		5	
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
Zer-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
Normal		450	Wyoming big sagebrush		25	
Unfavorable		250	Hood's phlox		5	
				Sandberg bluegrass		5
				Salmon wildrye		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
233: Wiggleton-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		40
		Normal	600	Threetip sagebrush		20
		Unfavorable	400	Bluebunch wheatgrass		10
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Lupine		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
234: Wiggleton-----	GRAVELLY LOAM 16-22 ARTRV/FEID (043AY010ID)	Favorable	1,500	Idaho fescue		40
		Normal	1,000	Mountain big sagebrush		20
		Unfavorable	500	Bluebunch wheatgrass		15
				Other perennial forbs		10
				Balsamroot		5
				Longleaf hawksbeard		5
		Other shrubs		5		
Copperbasin-----	MOUNTAIN WET MEADOW (043AY012ID)	Favorable	4,000	Idaho fescue		20
		Normal	3,000	Silver sagebrush		20
		Unfavorable	2,000	Tufted hairgrass		20
				Fleabane		5
				Northwest cinquefoil		5
				Other shrubs		5
				Sedge		5
235: Wimpey-----	SEMIWET MEADOW (R012XY039ID)	Favorable	3,000	Sedge		20
		Normal	2,250	Slender wheatgrass		20
		Unfavorable	1,200	Basin wildrye		10
				Western wheatgrass		10
				Woods' rose		5
				Cinquefoil		5
				Clover		5
				Mountain brome		5
				Willow		5
Zeph-----	SEMIWET MEADOW CAREX (R012XY023ID)	Favorable	1,500	Sedge		30
		Normal	1,100	Western wheatgrass		25
		Unfavorable	650	Basin wildrye		10
				Rocky Mountain iris		5
				Woods' rose		5
				Willow		5
Ajax-----	WET MEADOW (R012XY038ID)	Favorable	4,800	Nebraska sedge		20
		Normal	3,800	Beaked sedge		15
		Unfavorable	2,800	Tufted hairgrass		15
				Water sedge		10
				Baltic rush		5
				Clover		5
				Glandular willowweed		5
				Northwest cinquefoil		5
				Willow		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition			
		Kind of year	Dry		Forest	Range		
			Weight				Pct	Pct
			Lb/acre					
236: Windcoat-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		30		
		Normal	350	Low sagebrush		30		
		Unfavorable	200	Other shrubs				10
				Hood's phlox				5
				Sandberg bluegrass				5
				Needleandthread				5
				Other perennial forbs				5
				Other perennial grasses				5
				Wheatgrass				5
237: Windcoat-----	SHALLOW GRAVELLY LOAM 8-12 ARAR8/PSSP6 (R012XY028ID)	Favorable	650	Bluebunch wheatgrass		30		
		Normal	350	Low sagebrush		30		
		Unfavorable	200	Other shrubs				10
				Hood's phlox				5
				Sandberg bluegrass				5
				Needleandthread				5
				Other perennial forbs				5
				Other perennial grasses				5
				Wheatgrass				5
Fandow-----	LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	700	Bluebunch wheatgrass		40		
		Normal	400	Black sagebrush		25		
		Unfavorable	300	Other perennial forbs				10
				Other perennial grasses				10
				Other shrubs				10
					5			
238: Wiskisprings----	SEMIWET MEADOW (R012XY039ID)	Favorable	3,000	Sedge		20		
		Normal	2,250	Slender wheatgrass		20		
		Unfavorable	1,200	Western wheatgrass				10
				Basin wildrye				5
				Cinquefoil				5
				Clover				5
				Mountain brome				5
				Shrubby cinquefoil				5
				Tufted hairgrass				5
Biglost-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	1,000	Western wheatgrass		45		
		Normal	600	Basin big sagebrush		20		
		Unfavorable	400	Other perennial forbs				10
				Other perennial grasses				10
				Other shrubs				10
					5			
239: Wiskisprings----	SEMIWET MEADOW (R012XY039ID)	Favorable	3,000	Sedge		20		
		Normal	2,250	Slender wheatgrass		20		
		Unfavorable	1,200	Western wheatgrass				10
				Basin wildrye				5
				Cinquefoil				5
				Clover				5
				Mountain brome				5
				Shrubby cinquefoil				5
				Tufted hairgrass				5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition			
		Kind of year	Dry		Forest	Range		
			Weight				Pct	Pct
			Lb/acre					
239: Biglost-----	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	1,000	Western wheatgrass		45		
		Normal	600	Basin big sagebrush		20		
		Unfavorable	400	Other perennial forbs		10		
				Other perennial grasses		10		
				Other shrubs		10		
				Sandberg bluegrass		5		
		Copperbasin----	RIVERBOTTOM 10-16 POPUL/PASM (R012XY042ID)	Favorable	1,800	Other perennial forbs		15
				Normal	1,300	Western wheatgrass		15
				Unfavorable	800	Kentucky bluegrass		10
						Basin wildrye		10
						Other perennial grasses		10
						Other shrubs		10
						Sedge		10
						Willow		10
Black cottonwood						5		
Bluebunch wheatgrass						5		
240: Xeric Torrifluvents--	ALLUVIAL BOTTOM 8-13 ARTRT/PASM (R012XY011ID)	Favorable	1,000	Western wheatgrass		45		
		Normal	600	Basin big sagebrush		20		
		Unfavorable	400	Other perennial forbs		10		
				Other perennial grasses		10		
				Other shrubs		10		
				Sandberg bluegrass		5		
241: Yearian-----	WET MEADOW (R012XY038ID)	Favorable	4,800	Sedge		30		
		Normal	3,600	Nebraska sedge		15		
		Unfavorable	2,800	Tufted hairgrass		15		
				Baltic rush		5		
				Cinquefoil		5		
				Clover		5		
				Small camas		5		
				Willow		5		
242: Yearian-----	WET MEADOW (R012XY038ID)	Favorable	4,800	Sedge		30		
		Normal	3,600	Nebraska sedge		15		
		Unfavorable	2,800	Tufted hairgrass		15		
				Baltic rush		5		
				Cinquefoil		5		
				Clover		5		
Small camas		5						
243: Zeale-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	750	Bluebunch wheatgrass		45		
		Normal	400	Low sagebrush		30		
		Unfavorable	300	Hood's phlox		5		
				Sandberg bluegrass		5		
				Other perennial grasses		5		
				Other shrubs		5		
Prairie Junegrass		5						

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
			Lb/acre		Pct	Pct
243: Meegero-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Mountain brome		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Whortleleaf snowberry		5
244: Zeale-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	750	Bluebunch wheatgrass		45
		Normal	400	Low sagebrush		30
		Unfavorable	300	Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial grasses		5
				Other shrubs		5
				Prairie Junegrass		5
Meegero-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Longleaf hawksbeard		5
				Mountain brome		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Whortleleaf snowberry		5
245: Zeale-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	750	Bluebunch wheatgrass		45
		Normal	400	Low sagebrush		30
		Unfavorable	300	Hood's phlox		5
				Sandberg bluegrass		5
				Other perennial grasses		5
				Other shrubs		5
				Prairie Junegrass		5
Zeelnot-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,300	Idaho fescue		30
		Normal	900	Mountain big sagebrush		20
		Unfavorable	400	Bluebunch wheatgrass		10
				Other perennial grasses		10
				Sandberg bluegrass		5
				Arrowleaf balsamroot		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5
246: Zeebar-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Other perennial forbs		10
				Arrowleaf balsamroot		5
				Mountain brome		5
				Other perennial grasses		5
				Other shrubs		5
				Slender wheatgrass		5

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
246: Nielsen-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		45
		Normal	600	Threetip sagebrush		15
		Unfavorable	450	Bluebunch wheatgrass		10
				Arrowleaf balsamroot		5
				Milkvetch		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Phlox		5
Povey-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		45
		Normal	800	Mountain big sagebrush		20
		Unfavorable	500	Bluebunch wheatgrass		10
				Antelope bitterbrush		5
				Arrowleaf balsamroot		5
				Big bluegrass		5
Slender wheatgrass		5				
247: Zeebar-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	1,100	Idaho fescue		35
		Normal	900	Threetip sagebrush		20
		Unfavorable	600	Bluebunch wheatgrass		10
				Other perennial grasses		10
				Arrowleaf balsamroot		5
				Mountain big sagebrush		5
				Other perennial forbs		5
				Other shrubs		5
				Prairie Junegrass		5
Parkay-----	NORTH SLOPE LOAMY 12-16 ARTR4/FEID (R012XY010ID)	Favorable	900	Idaho fescue		35
		Normal	600	Bluebunch wheatgrass		15
		Unfavorable	450	Threetip sagebrush		15
				Other perennial forbs		10
				Other perennial grasses		10
				Nevada bluegrass		5
				Arrowleaf balsamroot		5
				Mountain big sagebrush		5
Other shrubs		5				
248: Zeebar-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40
		Normal	800	Mountain big sagebrush		15
		Unfavorable	500	Bluebunch wheatgrass		10
				Other perennial forbs		10
				Arrowleaf balsamroot		5
				Mountain brome		5
				Other perennial grasses		5
				Other shrubs		5
				Slender wheatgrass		5
Resoot-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,000	Idaho fescue		35
		Normal	700	Threetip sagebrush		20
		Unfavorable	500	Bluebunch wheatgrass		10
				Nevada bluegrass		5
				Sandberg bluegrass		5
				Mountain big sagebrush		5
				Other perennial forbs		5
Prairie Junegrass		5				

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition			
		Kind of year	Dry		Forest	Range		
			Weight			Pct	Pct	
			Lb/acre					
249: Zeegee-----	WET MEADOW (R012XY038ID)	Favorable	4,500	Nebraska sedge		20		
		Normal	3,800	Beaked sedge		15		
		Unfavorable	3,000	Water sedge		10		
				Baltic rush		5		
				Clover		5		
				Glandular willowweed		5		
				Northwest cinquefoil		5		
				Tufted hairgrass		5		
				Willow		5		
Ajax-----	WET MEADOW (R012XY038ID)	Favorable	4,800	Nebraska sedge		20		
		Normal	3,800	Beaked sedge		15		
		Unfavorable	2,800	Tufted hairgrass		15		
				Water sedge		10		
				Baltic rush		5		
				Clover		5		
				Glandular willowweed		5		
				Northwest cinquefoil		5		
				Willow		5		
250: Zeelnot-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,300	Idaho fescue		30		
		Normal	900	Mountain big sagebrush		20		
		Unfavorable	400	Bluebunch wheatgrass		10		
				Other perennial grasses		10		
				Sandberg bluegrass		5		
				Arrowleaf balsamroot		5		
				Other perennial forbs		5		
				Other shrubs		5		
				Prairie Junegrass		5		
251: Zeelnot-----	GRAVELLY 13-16 ARTR4/FEID (R012XY033ID)	Favorable	800	Idaho fescue		45		
		Normal	500	Threetip sagebrush		20		
		Unfavorable	250	Bluebunch wheatgrass		10		
				Sandberg bluegrass		5		
				Other perennial forbs		5		
				Other perennial grasses		5		
				Other shrubs		5		
252: Zeelnot-----	LOAMY 13-16 ARTRV/FEID (R012XY012ID)	Favorable	1,300	Idaho fescue		30		
		Normal	900	Mountain big sagebrush		20		
		Unfavorable	400	Bluebunch wheatgrass		10		
				Other perennial grasses		10		
				Sandberg bluegrass		5		
				Arrowleaf balsamroot		5		
				Other perennial forbs		5		
				Other shrubs		5		
				Prairie Junegrass		5		
Meegernot-----	LOAMY 16-22 ARTRV/FEID (R012XY021ID)	Favorable	1,500	Idaho fescue		40		
		Normal	800	Mountain big sagebrush		15		
		Unfavorable	500	Columbia needlegrass		5		
				Arrowleaf balsamroot		5		
				Bluebunch wheatgrass		5		
				Other perennial forbs		5		
				Other perennial grasses		5		
				Other shrubs		5		
				Rosy pussytoes		5		
				Slender wheatgrass		5		
				Whortleleaf snowberry		5		

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
			Lb/acre			
252: Adek-----	WINDSWEPT RIDGE 11-16 ARTR4- ARAR8/POA (R012XY014ID)	Favorable	500	Hood's phlox		20
		Normal	300	Bluegrass		10
		Unfavorable	100	Other perennial forbs		10
				Other perennial grasses		10
				Other shrubs		10
				Idaho fescue		5
				Sandberg bluegrass		5
				Wyoming big sagebrush		5
				Alpine ionactis		5
				Bluebunch wheatgrass		5
Fringed sagewort		5				
Low sagebrush		5				
Threetip sagebrush		5				
253: Zer-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		5
				Sandberg bluegrass		5
254: Zer-----	SHALLOW LOAM 11-13 ARAR8/PSSP6 (R012XY002ID)	Favorable	500	Bluebunch wheatgrass		40
		Normal	325	Low sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Sandberg bluegrass		5
				Green rabbitbrush		5
Winterfat		5				
255: Zer-----	SALINE LOAMY 8-11 SAVE4/LECI4 (R012XY018ID)	Favorable	1,200	Black greasewood		35
		Normal	700	Basin wildrye		20
		Unfavorable	400	Basin big sagebrush		5
				Bottlebrush squirreltail		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Thickspike wheatgrass		5
Western wheatgrass		5				
256: Zer-----	FLAGSTONE 8-11 ARTRW8/LESAS2 (R012XY017ID)	Favorable	500	Salmon wildrye		35
		Normal	300	Wyoming big sagebrush		25
		Unfavorable	175	Hood's phlox		10
				Sandberg bluegrass		5
Bluebunch wheatgrass		5				
257: Zer-----	SALINE LOAMY 8-11 SAVE4/LECI4 (R012XY018ID)	Favorable	1,200	Black greasewood		35
		Normal	700	Basin wildrye		20
		Unfavorable	400	Basin big sagebrush		5
				Bottlebrush squirreltail		5
				Other perennial forbs		5
				Other perennial grasses		5
				Other shrubs		5
				Thickspike wheatgrass		5
Western wheatgrass		5				

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry Weight		Forest	Range
258: Zer-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Other shrubs		10
				Indian ricegrass		5
				Sandberg bluegrass		5
				Bottlebrush squirreltail		5
				Other perennial forbs		5
				Other perennial grasses		5
				Phlox		5
259: Zer-----		GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass	
	Normal		450	Wyoming big sagebrush		25
	Unfavorable		250	Hood's phlox		5
				Sandberg bluegrass		5
				Salmon wildrye		5
Snowslide-----	WINDSWEPT 8-11 SPAR2-ARFR4/POSE- HECOC8 (R012XY006ID)	Favorable	275	Fringed sagewort		20
		Normal	100	Sandberg bluegrass		15
		Unfavorable	75	Nuttall tansy		10
				Bottlebrush squirreltail		10
				Other perennial forbs		10
				Sagebrush		10
				Indian ricegrass		5
				Other perennial grasses		5
				Other shrubs		5
				Winterfat		5
260: Zer-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		5
				Sandberg bluegrass		5
				Salmon wildrye		5
Snowslide-----	SALINE GRAVELLY 7-9 ATCO/ACHY- HECOC8 (R012XY009ID)	Favorable	600	Shadscale saltbush		30
		Normal	350	Indian ricegrass		15
		Unfavorable	200	Bottlebrush squirreltail		10
				Needleandthread		10
				Other shrubs		10
				Sandberg bluegrass		5
				Bud sagebrush		5
				Other perennial forbs		5
				Other perennial grasses		5
				Sand dropseed		5
261: Zer-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	450	Wyoming big sagebrush		25
		Unfavorable	250	Hood's phlox		5
				Sandberg bluegrass		5
				Salmon wildrye		5
Whiteknob-----	GRAVELLY LOAM 8-12 ARTRW8/PSSP6 (R012XY004ID)	Favorable	600	Bluebunch wheatgrass		45
		Normal	400	Wyoming big sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
			Other perennial grasses		5	

Table 6.--Ecological Sites, Forest Habitat Types, and Characteristic Plant Communities--Continued

Map symbol and soil name	Ecological site or forest habitat type	Total production		Characteristic vegetation	Composition	
		Kind of year	Dry		Forest	Range
			Weight			
262: Simeroi-----	LIMEY GRAVELLY 8-13 ARNO4/PSSP6 (R012XY001ID)	Favorable	650	Bluebunch wheatgrass		40
		Normal	400	Black sagebrush		20
		Unfavorable	250	Hood's phlox		5
				Indian ricegrass		5
				Sandberg bluegrass		5
				Needleandthread		5
				Other perennial forbs		5
				Other perennial grasses		5
263: Water.						

Table 7.--Recreation

(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		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Alpinepeak-----	75	Very limited Gravel content	1.00	Very limited Gravel content	1.00	Not limited	
2: Aquents-----	75	Very limited Depth to saturated zone Flooding Content of large stones Gravel content	1.00 1.00 0.42 0.41	Very limited Depth to saturated zone Content of large stones Gravel content Flooding	1.00 1.00 0.42 0.41 0.40	Very limited Depth to saturated zone Content of large stones Flooding	1.00 0.42 0.40
Riverwash-----	20	Not rated		Not rated		Not rated	
3: Arbus-----	85	Very limited Sodium content Dusty Gravel content	1.00 0.50 0.41	Very limited Sodium content Dusty Gravel content	1.00 0.50 0.41	Somewhat limited Dusty 0.50	
4: Arco-----	90	Very limited Flooding	1.00	Not limited		Not limited	
5: Badland-----	50	Not rated		Not rated		Not rated	
Millhi-----	35	Very limited Depth to saturated zone Sodium content Salinity Restricted permeability Slope	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Sodium content Salinity Restricted permeability Slope	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Water erosion Slope Too clayey	1.00 1.00 1.00 1.00
6: Bartonflat-----	80	Somewhat limited Gravel content	0.41	Somewhat limited Gravel content	0.41	Not limited	
7: Bartonflat-----	75	Very limited Gravel content	1.00	Very limited Gravel content	1.00	Not limited	
8: Bartonhill-----	55	Very limited Gravel content Slope	1.00 0.16	Very limited Gravel content Slope	1.00 0.16	Not limited	
Whitecloud-----	30	Very limited Gravel content Dusty Slope	1.00 0.50 0.16	Very limited Gravel content Dusty Slope	1.00 0.50 0.16	Somewhat limited Dusty 0.50	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
9:							
Bayhorse, north-----	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Dusty	0.50
		Gravel content	0.68	Gravel content	0.68		
		Dusty	0.50	Dusty	0.50		
Bayhorse, south-----	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Dusty	0.50
		Gravel content	0.68	Gravel content	0.68		
		Dusty	0.50	Dusty	0.50		
10:							
Bayhorse-----	45	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Dusty	0.50
		Gravel content	0.68	Gravel content	0.68		
		Dusty	0.50	Dusty	0.50		
Dawtonia-----	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel content	1.00	Gravel content	1.00	Dusty	0.50
		Dusty	0.50	Dusty	0.50		
11:							
Bigflat-----	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Restricted permeability	0.41	Restricted permeability	0.41		
Dacont-----	20	Somewhat limited		Somewhat limited		Not limited	
		Gravel content	0.33	Gravel content	0.33		
12:							
Biglost-----	50	Very limited		Somewhat limited		Not limited	
		Flooding	1.00	Gravel content	0.50		
		Gravel content	0.50				
Copperbasin-----	30	Very limited		Very limited		Not limited	
		Flooding	1.00	Gravel content	1.00		
		Gravel content	1.00				
13:							
Bigrant, very poorly drained-----	45	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	Salinity	0.50		
		Salinity	0.50	Restricted permeability	0.21		
		Restricted permeability	0.21				
Bigrant, poorly drained-----	45	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	Salinity	0.50		
		Salinity	0.50	Restricted permeability	0.21		
		Restricted permeability	0.21				

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
14: Bigrant-----	35	Very limited Depth to saturated zone Flooding Salinity Restricted permeability	1.00 1.00 0.50 0.21	Very limited Depth to saturated zone Salinity Restricted permeability	1.00 0.50 0.21	Very limited Depth to saturated zone	1.00
Thosand-----	30	Very limited Depth to saturated zone Flooding Ponding Salinity	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Salinity	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00
Dickeypeak-----	20	Very limited Sodium content Salinity	1.00 1.00	Very limited Sodium content Salinity	1.00 1.00	Not limited	
15: Blackfoot-----	75	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
16: Blackfoot-----	45	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
Borco-----	40	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
17: Bluedome-----	80	Somewhat limited Dusty Depth to cemented pan	0.50 0.16	Somewhat limited Dusty Depth to cemented pan	0.50 0.16	Somewhat limited Dusty	0.50
18: Bock-----	55	Not limited		Not limited		Not limited	
Breitenbach-----	25	Not limited		Not limited		Not limited	
19: Bock-----	55	Not limited		Not limited		Not limited	
Bromaglin-----	35	Not limited		Not limited		Not limited	
20: Bockston-----	75	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
21: Brabas-----	65	Very limited Gravel content Slope Restricted permeability	1.00 1.00 0.96	Very limited Gravel content Slope Restricted permeability	1.00 1.00 0.96	Somewhat limited Slope	0.32

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
21: Heathcoat-----	25	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Somewhat limited Slope	0.32
22: Breitenbach-----	75	Somewhat limited Gravel content	0.59	Somewhat limited Gravel content	0.59	Not limited	
23: Breitenbach-----	75	Somewhat limited Gravel content	0.59	Somewhat limited Gravel content	0.59	Not limited	
24: Breitenbach-----	75	Somewhat limited Gravel content Slope	0.59 0.16	Somewhat limited Gravel content Slope	0.59 0.16	Not limited	
25: Bunting-----	95	Somewhat limited Gravel content	0.16	Somewhat limited Gravel content	0.16	Not limited	
26: Bunting-----	95	Somewhat limited Gravel content	0.16	Somewhat limited Gravel content	0.16	Not limited	
27: Bunting-----	70	Somewhat limited Gravel content	0.16	Somewhat limited Gravel content	0.16	Not limited	
Moffspring-----	25	Not limited		Not limited		Not limited	
28: Burststadt-----	50	Very limited Flooding	1.00	Not limited		Not limited	
Tohobit-----	35	Very limited Flooding Depth to saturated zone	1.00 0.07	Somewhat limited Depth to saturated zone	0.03	Not limited	
29: Busterback-----	60	Very limited Gravel content	1.00	Very limited Gravel content	1.00	Not limited	
Wiggleton-----	20	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
30: Calcids-----	35	Very limited Slope Content of large stones Dusty	1.00 0.54 0.50	Very limited Slope Content of large stones Dusty	1.00 0.54 0.50	Very limited Slope Content of large stones Dusty	1.00 0.54 0.50
Badland-----	25	Not rated		Not rated		Not rated	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
30: Xerolls-----	20	Very limited Slope Restricted permeability	1.00 0.45	Very limited Slope Restricted permeability	1.00 0.45	Very limited Slope Water erosion	1.00 1.00
31: Calcids-----	45	Very limited Slope Content of large stones Dusty	1.00 0.54 0.50	Very limited Slope Content of large stones Dusty	1.00 0.54 0.50	Very limited Slope Content of large stones Dusty	1.00 0.54 0.50
Rubble land-----	25	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
32: Castlepeak-----	50	Very limited Gravel content	1.00	Very limited Gravel content	1.00	Not limited	
Yankeefork-----	40	Somewhat limited Gravel content	0.22	Somewhat limited Gravel content	0.22	Not limited	
33: Chamberlain-----	80	Somewhat limited Dusty Gravel content	0.50 0.11	Somewhat limited Dusty Gravel content	0.50 0.11	Somewhat limited Dusty	0.50
34: Coalkiln-----	70	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Zeelnot-----	20	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty	1.00 0.50
35: Copperbasin-----	55	Very limited Flooding Gravel content	1.00 0.11	Somewhat limited Gravel content	0.11	Not limited	
Redfish-----	20	Very limited Depth to saturated zone Flooding Gravel content	1.00 1.00 0.25	Very limited Depth to saturated zone Flooding Gravel content	1.00 0.40 0.25	Very limited Depth to saturated zone Flooding	1.00 0.40
36: Copperbasin-----	45	Very limited Flooding Gravel content	1.00 1.00	Very limited Gravel content	1.00	Not limited	
Redfish-----	35	Very limited Depth to saturated zone Flooding Gravel content	1.00 1.00 0.25	Very limited Depth to saturated zone Flooding Gravel content	1.00 0.40 0.25	Very limited Depth to saturated zone Flooding	1.00 0.40

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
37: Cowbone-----	45	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
Tohobit-----	35	Very limited Flooding Depth to saturated zone	1.00 0.07	Somewhat limited Depth to saturated zone	0.03	Not limited	
38: Cronks-----	55	Very limited Slope Restricted permeability Content of large stones	1.00 0.41 0.03	Very limited Slope Restricted permeability Content of large stones	1.00 0.41 0.03	Very limited Slope Content of large stones	1.00 0.03
Challis-----	35	Very limited Slope Gravel content Restricted permeability	1.00 0.44 0.41	Very limited Slope Gravel content Restricted permeability	1.00 0.44 0.41	Very limited Slope	1.00
39: Cronks-----	60	Somewhat limited Slope Restricted permeability Content of large stones	0.84 0.41 0.26	Somewhat limited Slope Restricted permeability Content of large stones	0.84 0.41 0.26	Somewhat limited Content of large stones	0.26
Venum-----	30	Somewhat limited Slope Dusty Restricted permeability Content of large stones	0.84 0.50 0.41 0.14	Somewhat limited Slope Dusty Restricted permeability Content of large stones	0.84 0.50 0.41 0.14	Somewhat limited Dusty Content of large stones	0.50 0.14
40: Cryolls-----	65	Very limited Slope Gravel content Content of large stones	1.00 0.22 0.01	Very limited Slope Gravel content Content of large stones	1.00 0.22 0.01	Very limited Slope Content of large stones	1.00 0.01
Rubble land-----	20	Not rated		Not rated		Not rated	
41: Cryolls-----	50	Very limited Slope Gravel content Content of large stones	1.00 0.22 0.01	Very limited Slope Gravel content Content of large stones	1.00 0.22 0.01	Very limited Slope Content of large stones	1.00 0.01
Rubble land-----	20	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
42: Cryepts-----	50	Very limited Slope Content of large stones	1.00 0.29	Very limited Slope Content of large stones	1.00 0.29	Very limited Slope Content of large stones	1.00 0.29
Rubble land-----	20	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
43: Custco-----	80	Somewhat limited Slope Gravel content	0.63 0.18	Somewhat limited Slope Gravel content	0.63 0.18	Not limited	
44: Dacont-----	50	Very limited Slope Content of large stones	1.00 0.35	Very limited Slope Content of large stones	1.00 0.35	Very limited Slope Content of large stones	1.00 0.35
Custco-----	35	Very limited Slope Gravel content	1.00 0.36	Very limited Slope Gravel content	1.00 0.36	Very limited Slope	1.00
45: Dacont-----	35	Very limited Gravel content Slope	1.00 1.00	Very limited Gravel content Slope	1.00 1.00	Somewhat limited Slope	0.92
Resoot-----	30	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Somewhat limited Slope	0.92
Nielsen-----	25	Very limited Depth to bedrock Slope Restricted permeability Content of large stones	1.00 1.00 0.21 0.08	Very limited Depth to bedrock Slope Restricted permeability Content of large stones	1.00 1.00 0.21 0.08	Somewhat limited Content of large stones Slope	0.08 0.02
46: Dacont-----	40	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Slope	1.00
Zeebar-----	40	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
47: Darlington-----	55	Very limited Gravel content	1.00	Very limited Gravel content	1.00	Not limited	
Lesbut-----	25	Somewhat limited Gravel content	0.36	Somewhat limited Gravel content	0.36	Not limited	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
48: Dawtonia-----	80	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
49: Dawtonia-----	75	Very limited Gravel content Slope Dusty	1.00 1.00 0.50	Very limited Gravel content Slope Dusty	1.00 1.00 0.50	Somewhat limited Dusty	0.50
Dawtonia, cold-----	20	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
50: Dawtonia, cold-----	85	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
Dawtonia-----	15	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
51: Dawtonia-----	45	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty	1.00 0.50
Frailton-----	35	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.29	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.29	Very limited Slope Dusty	1.00 0.50
52: Dawtonia-----	35	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Somewhat limited Slope Dusty	0.50 0.50
Kehar-----	30	Very limited Slope Dusty Restricted permeability Gravel content	1.00 0.50 0.41 0.36	Very limited Slope Dusty Restricted permeability Gravel content	1.00 0.50 0.41 0.36	Somewhat limited Dusty	0.50
Soen-----	20	Very limited Slope Restricted permeability Gravel content	1.00 0.41 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.41 0.36	Not limited	
53: Dawtonia-----	60	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
Rock outcrop-----	20	Not rated		Not rated		Not rated	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
54: Dawtonia-----	50	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty	1.00 0.50
Custco-----	35	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Slope	1.00
55: Dawtonia-----	50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
Dacont-----	30	Very limited Slope Gravel content	1.00 0.33	Very limited Slope Gravel content	1.00 0.33	Very limited Slope	1.00
56: Derwell-----	65	Somewhat limited Dusty Gravel content	0.50 0.18	Somewhat limited Dusty Gravel content	0.50 0.18	Somewhat limited Dusty	0.50
Whiteknob-----	15	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
57: Derwell-----	30	Somewhat limited Dusty Gravel content	0.50 0.18	Somewhat limited Dusty Gravel content	0.50 0.18	Somewhat limited Dusty	0.50
Zer-----	25	Somewhat limited Dusty Gravel content	0.50 0.16	Somewhat limited Dusty Gravel content	0.50 0.16	Somewhat limited Dusty	0.50
Packmo-----	20	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.18	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.18	Somewhat limited Dusty	0.50
58: Dickeypeak-----	60	Very limited Sodium content Salinity	1.00 1.00	Very limited Sodium content Salinity	1.00 1.00	Not limited	
Bigrant-----	25	Very limited Depth to saturated zone Flooding Salinity Restricted permeability	1.00 1.00 0.50 0.21	Very limited Depth to saturated zone Salinity Restricted permeability	1.00 0.50 0.21	Very limited Depth to saturated zone	1.00
59: Donkehill-----	85	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.95	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.95	Very limited Slope	1.00

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
60: Donkehill-----	45	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.95	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.95	Very limited Slope	1.00
Zeebar-----	30	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
61: Donkehill-----	40	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.95	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.95	Very limited Slope	1.00
Zeebar-----	35	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
62: Dumps, mine-----	100	Not rated		Not rated		Not rated	
63: Escarlo-----	45	Very limited Slope Dusty Gravel content	1.00 0.50 0.25	Very limited Slope Dusty Gravel content	1.00 0.50 0.25	Somewhat limited Dusty Slope	0.50 0.08
Heathcoat-----	40	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Somewhat limited Slope	0.08
64: Escarlo-----	55	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Water erosion Dusty Slope	1.00 0.50 0.08
Heathcoat-----	40	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Somewhat limited Slope	0.08
65: Ezbin-----	40	Very limited Slope Dusty Content of large stones Gravel content	1.00 0.50 0.26 0.01	Very limited Slope Dusty Content of large stones Gravel content	1.00 0.50 0.26 0.01	Very limited Slope Dusty Content of large stones	1.00 0.50 0.26
Zeebar-----	30	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
65: Nielsen-----	15	Very limited Slope Depth to bedrock Restricted permeability Content of large stones	1.00 1.00 0.21 0.08	Very limited Slope Depth to bedrock Restricted permeability Content of large stones	1.00 1.00 0.21 0.08	Very limited Slope Content of large stones	1.00 0.08
66: Fandow-----	85	Very limited Sodium content Depth to cemented pan Dusty Gravel content	1.00 1.00 0.50 0.41	Very limited Sodium content Depth to cemented pan Dusty Gravel content	1.00 1.00 0.50 0.41	Somewhat limited Dusty	0.50
67: Fandow-----	50	Very limited Sodium content Depth to cemented pan Dusty Gravel content	1.00 1.00 0.50 0.41	Very limited Sodium content Depth to cemented pan Dusty Gravel content	1.00 1.00 0.50 0.41	Somewhat limited Dusty	0.50
Arbus-----	45	Very limited Sodium content Dusty Gravel content	1.00 0.50 0.41	Very limited Sodium content Dusty Gravel content	1.00 0.50 0.41	Somewhat limited Dusty	0.50
68: Farvant-----	35	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.01	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.01	Very limited Slope Content of large stones	1.00 0.01
Badland-----	25	Not rated		Not rated		Not rated	
Gradco-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
69: Farvant-----	45	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.33	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.33	Very limited Slope	1.00
Sactus-----	30	Very limited Depth to bedrock Gravel content Slope Dusty	1.00 1.00 1.00 0.50	Very limited Depth to bedrock Gravel content Slope Dusty	1.00 1.00 1.00 0.50	Somewhat limited Dusty Slope	0.50 0.18
Dawtonia-----	15	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty	1.00 0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
70: Fezip-----	35	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
Lemroi-----	25	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Redfish-----	15	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
71: Fezip-----	40	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
Redfish-----	25	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
Copperbasin-----	15	Very limited Flooding Gravel content	1.00 1.00	Very limited Gravel content	1.00	Not limited	
72: Firebox-----	85	Somewhat limited Dusty Gravel content	0.50 0.32	Somewhat limited Dusty Gravel content	0.50 0.32	Somewhat limited Dusty	0.50
73: Firebox-----	95	Very limited Content of large stones Dusty	1.00 0.50	Very limited Content of large stones Dusty	1.00 0.50	Very limited Content of large stones Dusty	1.00 0.50
74: Frailton-----	50	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.29	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.29	Very limited Slope	1.00
Dawtonia-----	35	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Somewhat limited Slope Dusty	0.50 0.50
75: Frailton-----	50	Very limited Slope Depth to bedrock Gravel content Dusty	1.00 1.00 1.00 0.50	Very limited Slope Depth to bedrock Gravel content Dusty	1.00 1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75: Gradco-----	25	Very limited Slope Dusty Gravel content	1.00 0.50 0.36	Very limited Slope Dusty Gravel content	1.00 0.50 0.36	Very limited Slope Dusty	1.00 0.50
76: Friedman-----	40	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Somewhat limited Slope	0.50
Reck-----	25	Very limited Restricted permeability Slope Gravel content	1.00 1.00 0.18	Very limited Restricted permeability Slope Gravel content	1.00 1.00 0.18	Somewhat limited Slope	0.50
Goldhill-----	20	Very limited Slope Restricted permeability	1.00 0.96	Very limited Slope Restricted permeability	1.00 0.96	Somewhat limited Slope	0.50
77: Gaciba-----	45	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 1.00	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 1.00	Very limited Slope	1.00
Cronks-----	30	Very limited Slope Restricted permeability Content of large stones	1.00 0.41 0.26	Very limited Slope Restricted permeability Content of large stones	1.00 0.41 0.26	Very limited Slope Content of large stones	1.00 0.26
78: Gaciba-----	70	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.18	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.18	Very limited Slope	1.00
Dacont-----	15	Very limited Slope Gravel content	1.00 0.33	Very limited Slope Gravel content	1.00 0.33	Very limited Slope	1.00
79: Gany-----	80	Very limited Slope Gravel content	1.00 0.62	Very limited Slope Gravel content	1.00 0.62	Very limited Slope	1.00
80: Geemore-----	90	Somewhat limited Gravel content Restricted permeability	0.50 0.21	Somewhat limited Gravel content Restricted permeability	0.50 0.21	Not limited	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
81: Germer-----	55	Somewhat limited Gravel content Dusty Restricted permeability	0.99 0.50 0.21	Somewhat limited Gravel content Dusty Restricted permeability	0.99 0.50 0.21	Somewhat limited Dusty	0.50
Dawtonia-----	25	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
82: Goldaho-----	65	Very limited Restricted permeability Slope Dusty Gravel content	1.00 1.00 0.50 0.41	Very limited Restricted permeability Slope Dusty Gravel content	1.00 1.00 0.50 0.41	Somewhat limited Slope Dusty	0.50 0.50
Zer-----	25	Very limited Slope Dusty Gravel content	1.00 0.50 0.16	Very limited Slope Dusty Gravel content	1.00 0.50 0.16	Somewhat limited Slope Dusty	0.50 0.50
83: Goldhill-----	50	Very limited Slope Restricted permeability	1.00 0.96	Very limited Slope Restricted permeability	1.00 0.96	Somewhat limited Slope	0.82
Zeebar-----	30	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
84: Goosebury-----	80	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
85: Goosebury-----	90	Very limited Gravel content Slope Dusty	1.00 0.84 0.50	Very limited Gravel content Slope Dusty	1.00 0.84 0.50	Somewhat limited Dusty	0.50
86: Goosebury-----	60	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.36	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.36	Somewhat limited Dusty	0.50
Windcoat-----	25	Very limited Depth to cemented pan Slope Dusty Gravel content	1.00 0.84 0.50 0.41	Very limited Depth to cemented pan Slope Dusty Gravel content	1.00 0.84 0.50 0.41	Somewhat limited Dusty	0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
87: Gradco-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Somewhat limited Slope	0.92
Farvant-----	35	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.33	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.33	Somewhat limited Slope	0.92
88: Gradco-----	50	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Farvant-----	35	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.33	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.33	Very limited Slope	1.00
89: Hagenbarth-----	65	Very limited Slope Restricted permeability	1.00 0.21	Very limited Slope Restricted permeability	1.00 0.21	Very limited Slope	1.00
Brabas-----	25	Very limited Gravel content Slope Restricted permeability	1.00 1.00 0.96	Very limited Gravel content Slope Restricted permeability	1.00 1.00 0.96	Not limited	
90: Heathcoat-----	75	Somewhat limited Restricted permeability Slope Gravel content	0.96 0.63 0.36	Somewhat limited Restricted permeability Slope Gravel content	0.96 0.63 0.36	Not limited	
91: Heathcoat-----	50	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Somewhat limited Slope	0.82
Goldhill-----	30	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Somewhat limited Slope	0.82
92: Heathcoat-----	45	Very limited Slope Restricted permeability	1.00 0.96	Very limited Slope Restricted permeability	1.00 0.96	Very limited Slope	1.00
Soen-----	30	Very limited Slope Restricted permeability	1.00 0.41	Very limited Slope Restricted permeability	1.00 0.41	Very limited Slope	1.00

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
93: Howcan-----	35	Very limited Slope Gravel content	1.00 0.36	Very limited Slope Gravel content	1.00 0.36	Very limited Slope	1.00
Hagenbarth-----	30	Very limited Slope Restricted permeability	1.00 0.21	Very limited Slope Restricted permeability	1.00 0.21	Very limited Slope	1.00
Hutchley-----	20	Very limited Depth to bedrock Slope Gravel content	1.00 0.84 0.83	Very limited Depth to bedrock Slope Gravel content	1.00 0.84 0.83	Not limited	
94: Hutchley-----	40	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.83	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.83	Very limited Slope	1.00
Nurkey-----	35	Very limited Gravel content Slope Dusty	1.00 1.00 0.50	Very limited Gravel content Slope Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
95: Ike-----	40	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.28	Very limited Slope Depth to bedrock Dusty Gravel content	1.00 1.00 0.50 0.28	Very limited Slope Dusty	1.00 0.50
Rock outcrop-----	20	Not rated		Not rated		Not rated	
Jimbee-----	15	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.36	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.36	Very limited Slope	1.00
96: Inferno-----	40	Very limited Slope Restricted permeability Gravel content	1.00 0.41 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.41 0.36	Very limited Slope	1.00
Grouseville-----	35	Very limited Slope Restricted permeability	1.00 0.96	Very limited Slope Restricted permeability	1.00 0.96	Very limited Slope	1.00
97: Jimbee-----	45	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.36	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.36	Very limited Slope	1.00
Rock outcrop-----	20	Not rated		Not rated		Not rated	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
97: Ike-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Dusty	0.50
		Dusty	0.50	Dusty	0.50		
		Gravel content	0.28	Gravel content	0.28		
98: Justesen-----	50	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Not limited	
Drage-----	35	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Not limited	
		Gravel content	0.02	Gravel content	0.02		
99: Kadletz-----	90	Very limited Gravel content	1.00	Very limited Gravel content	1.00	Somewhat limited Dusty	0.50
		Dusty	0.50	Dusty	0.50		
100: Kehar-----	80	Somewhat limited Slope	0.96	Somewhat limited Slope	0.96	Somewhat limited Dusty	0.50
		Dusty	0.50	Dusty	0.50		
		Restricted permeability	0.41	Restricted permeability	0.41		
		Gravel content	0.36	Gravel content	0.36		
101: Kehar-----	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Gravel content	0.99	Gravel content	0.99	Dusty	0.50
		Dusty	0.50	Dusty	0.50		
		Restricted permeability	0.41	Restricted permeability	0.41		
Kehar, eroded-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Too clayey	0.50	Too clayey	0.50	Too clayey	0.50
		Restricted permeability	0.41	Restricted permeability	0.41		
		Gravel content	0.36	Gravel content	0.36		
102: Ketchum-----	80	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Gravel content	1.00	Gravel content	1.00	Dusty	0.50
		Dusty	0.50	Dusty	0.50		
103: Ketchum, cold-----	70	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Content of large stones	0.01	Content of large stones	0.01	Content of large stones	0.01
Ketchum-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Content of large stones	0.01	Content of large stones	0.01	Content of large stones	0.01

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
104: Klug-----	85	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.33	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.33	Somewhat limited Dusty	0.50
105: Klug-----	30	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
Gaciba-----	25	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.08	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.08	Very limited Slope Content of large stones	1.00 0.08
Dacont-----	20	Very limited Slope Gravel content	1.00 0.33	Very limited Slope Gravel content	1.00 0.33	Very limited Slope	1.00
106: Klug-----	60	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
Povey-----	25	Very limited Slope Gravel content	1.00 0.04	Very limited Slope Gravel content	1.00 0.04	Very limited Slope	1.00
107: Klug-----	55	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
Povey-----	25	Very limited Slope Gravel content	1.00 0.04	Very limited Slope Gravel content	1.00 0.04	Very limited Slope	1.00
108: Klug-----	50	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
Zeebar-----	30	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
109: Lacrol-----	65	Very limited Depth to saturated zone Slope Restricted permeability Gravel content	1.00 1.00 0.45 0.14	Very limited Slope Depth to saturated zone Restricted permeability Gravel content	1.00 1.00 0.45 0.14	Very limited Depth to saturated zone Slope	1.00 1.00

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
109: Friedman-----	20	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Very limited Slope	1.00
110: Lag-----	80	Very limited Slope Content of large stones Dusty	1.00 0.61 0.50	Very limited Slope Content of large stones Dusty	1.00 0.61 0.50	Very limited Slope Content of large stones Dusty	1.00 0.61 0.50
111: Lag-----	75	Very limited Slope Content of large stones Dusty	1.00 0.61 0.50	Very limited Slope Content of large stones Dusty	1.00 0.61 0.50	Very limited Slope Content of large stones Dusty	1.00 0.61 0.50
112: Lag-----	70	Very limited Slope Content of large stones Dusty	1.00 0.61 0.50	Very limited Slope Content of large stones Dusty	1.00 0.61 0.50	Very limited Slope Content of large stones Dusty	1.00 0.61 0.50
Klug-----	15	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
113: Langer-----	75	Very limited Slope Gravel content	1.00 0.25	Very limited Slope Gravel content	1.00 0.25	Very limited Slope	1.00
114: Leadore-----	90	Somewhat limited Dusty Gravel content	0.50 0.22	Somewhat limited Dusty Gravel content	0.50 0.22	Somewhat limited Dusty	0.50
115: Leatherman-----	65	Very limited Depth to cemented pan Gravel content Dusty	1.00 0.98 0.50	Very limited Depth to cemented pan Gravel content Dusty	1.00 0.98 0.50	Somewhat limited Dusty	0.50
Arbus-----	35	Very limited Sodium content Dusty Gravel content	1.00 0.50 0.41	Very limited Sodium content Dusty Gravel content	1.00 0.50 0.41	Somewhat limited Dusty	0.50
116: Leatherman-----	45	Very limited Depth to cemented pan Gravel content Dusty	1.00 0.98 0.50	Very limited Depth to cemented pan Gravel content Dusty	1.00 0.98 0.50	Somewhat limited Dusty	0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
116: Bluedome-----	30	Somewhat limited Depth to cemented pan Dusty Gravel content	0.97 0.50 0.50	Somewhat limited Depth to cemented pan Dusty Gravel content	0.97 0.50 0.50	Somewhat limited Dusty	0.50
117: Lemco-----	65	Very limited Slope Restricted permeability	1.00 0.96	Very limited Slope Restricted permeability	1.00 0.96	Very limited Slope	1.00
Friedman-----	25	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Very limited Slope	1.00
118: Lemhi-----	45	Very limited Depth to saturated zone Flooding	1.00 1.00	Somewhat limited Depth to saturated zone	0.94	Somewhat limited Depth to saturated zone	0.86
Copperbasin-----	20	Very limited Flooding Gravel content	1.00 0.11	Somewhat limited Gravel content	0.11	Not limited	
Lilylake-----	15	Very limited Depth to saturated zone Flooding Ponding	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40
119: Lemroi-----	45	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Leecreek-----	40	Very limited Depth to saturated zone Flooding	1.00 1.00	Somewhat limited Depth to saturated zone	0.94	Somewhat limited Depth to saturated zone	0.86
120: Lemroi-----	40	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Leecreek-----	30	Very limited Depth to saturated zone Flooding	1.00 1.00	Somewhat limited Depth to saturated zone	0.94	Somewhat limited Depth to saturated zone	0.86
Grandjean-----	20	Very limited Depth to saturated zone Flooding Ponding	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
121: Lesbut-----	85	Somewhat limited Gravel content	0.36	Somewhat limited Gravel content	0.36	Not limited	
122: Lilylake-----	50	Very limited Depth to saturated zone Flooding Ponding	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Content of organic matter	1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00
Grandjean-----	25	Very limited Depth to saturated zone Flooding Ponding	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 1.00 0.40
123: Mahaffey-----	40	Very limited Flooding	1.00	Not limited		Not limited	
Copperbasin-----	20	Very limited Flooding Gravel content	1.00 0.11	Somewhat limited Gravel content	0.11	Not limited	
Wisconsin-----	20	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
124: Meegernot-----	75	Very limited Slope Gravel content	1.00 0.54	Very limited Slope Gravel content	1.00 0.54	Very limited Slope	1.00
125: Meegero-----	60	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Zeale-----	25	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
126: Millhi-----	90	Very limited Depth to saturated zone Sodium content Restricted permeability Dusty	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Sodium content Restricted permeability Dusty	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Dusty	1.00 0.50
127: Millhi-----	85	Very limited Depth to saturated zone Sodium content Restricted permeability Dusty Gravel content	1.00 1.00 1.00 0.50 0.32	Very limited Depth to saturated zone Sodium content Restricted permeability Dusty Gravel content	1.00 1.00 1.00 0.50 0.32	Very limited Depth to saturated zone Water erosion Dusty	1.00 1.00 0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
128: Millhi-----	45	Very limited Depth to saturated zone Sodium content Restricted permeability Slope Dusty	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Sodium content Restricted permeability Slope Dusty	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Water erosion Dusty Slope	1.00 1.00 0.50 0.18
Millhi, eroded-----	35	Very limited Depth to saturated zone Slope Sodium content Salinity Restricted permeability	1.00 1.00 1.00 1.00 1.00	Very limited Slope Depth to saturated zone Sodium content Salinity Restricted permeability	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Water erosion Slope Too clayey	1.00 1.00 1.00 1.00
129: Millhi-----	50	Very limited Depth to saturated zone Sodium content Restricted permeability Slope Dusty	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Sodium content Restricted permeability Slope Dusty	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Water erosion Dusty	1.00 1.00 0.50
Badland-----	30	Not rated		Not rated		Not rated	
130: Millhi-----	65	Very limited Depth to saturated zone Slope Sodium content Restricted permeability Dusty	1.00 1.00 1.00 1.00 0.50	Very limited Slope Depth to saturated zone Sodium content Restricted permeability Dusty	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Water erosion Slope Dusty	1.00 1.00 1.00 0.50
Lacrol-----	25	Very limited Depth to saturated zone Slope Restricted permeability	1.00 1.00 0.45	Very limited Slope Depth to saturated zone Restricted permeability	1.00 1.00 0.45	Very limited Depth to saturated zone Slope	1.00 1.00
131: Misfire-----	35	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Water erosion Slope Dusty	1.00 1.00 0.50
Pattee-----	25	Very limited Slope Sodium content Dusty	1.00 1.00 0.50	Very limited Slope Sodium content Dusty	1.00 1.00 0.50	Very limited Water erosion Slope Dusty	1.00 1.00 0.50
Dawtonia-----	20	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
132: Mitring-----	50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
Holinrock-----	35	Very limited Slope Gravel content Dusty	1.00 0.54 0.50	Very limited Slope Gravel content Dusty	1.00 0.54 0.50	Very limited Slope Dusty	1.00 0.50
133: Mogg-----	55	Very limited Slope Depth to bedrock Gravel content Dusty	1.00 1.00 1.00 0.50	Very limited Slope Depth to bedrock Gravel content Dusty	1.00 1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
Dawtonia-----	35	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
134: Mooretown-----	45	Very limited Flooding Depth to saturated zone	1.00 0.07	Somewhat limited Depth to saturated zone	0.03	Not limited	
Blackfoot-----	25	Somewhat limited Depth to saturated zone	0.07	Somewhat limited Depth to saturated zone	0.03	Not limited	
Borah-----	20	Very limited Flooding Depth to saturated zone	1.00 0.98	Somewhat limited Depth to saturated zone	0.75	Somewhat limited Depth to saturated zone	0.44
135: Mooretown-----	55	Not limited		Not limited		Not limited	
Borco-----	35	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
136: Morphey-----	80	Very limited Depth to saturated zone Dusty Restricted permeability	1.00 0.50 0.45	Somewhat limited Depth to saturated zone Dusty Restricted permeability	0.94 0.50 0.45	Somewhat limited Depth to saturated zone Dusty	0.86 0.50
137: Morphey-----	80	Very limited Depth to saturated zone Dusty Restricted permeability	1.00 0.50 0.45	Somewhat limited Depth to saturated zone Dusty Restricted permeability	0.94 0.50 0.45	Somewhat limited Depth to saturated zone Dusty	0.86 0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
138: Mountainboy-----	80	Very limited Depth to cemented pan Gravel content	1.00 0.50	Very limited Depth to cemented pan Gravel content	1.00 0.50	Not limited	
139: Mountainboy-----	80	Very limited Depth to cemented pan Gravel content	1.00 0.50	Very limited Depth to cemented pan Gravel content	1.00 0.50	Not limited	
140: Nicholia-----	65	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.32	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.32	Somewhat limited Dusty 0.50	
Goosebury-----	20	Very limited Gravel content Slope Dusty	1.00 1.00 0.50	Very limited Gravel content Slope Dusty	1.00 1.00 0.50	Somewhat limited Slope Dusty 0.68 0.50	
141: Nielsen-----	55	Very limited Slope Depth to bedrock Restricted permeability Content of large stones	1.00 1.00 0.21 0.08	Very limited Slope Depth to bedrock Restricted permeability Content of large stones	1.00 1.00 0.21 0.08	Very limited Slope Content of large stones 1.00 0.08	
Gaciba-----	35	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.08	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.08	Very limited Slope Content of large stones 1.00 0.08	
142: Nitchly-----	60	Very limited Slope Dusty Gravel content	1.00 0.50 0.44	Very limited Slope Dusty Gravel content	1.00 0.50 0.44	Very limited Slope Dusty 1.00 0.50	
Skibo-----	15	Very limited Slope Dusty Content of large stones Gravel content	1.00 0.50 0.20 0.11	Very limited Slope Dusty Content of large stones Gravel content	1.00 0.50 0.20 0.11	Very limited Slope Dusty Content of large stones 0.20	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
143: Nurkey-----	45	Very limited Slope Dusty Gravel content	1.00 0.50 0.36	Very limited Slope Dusty Gravel content	1.00 0.50 0.36	Very limited Slope Dusty 1.00 0.50	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
143: Zeebar-----	30	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
Hutchley-----	15	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.01	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.01	Very limited Slope	1.00
144: Nurkey-----	50	Very limited Slope Dusty Gravel content	1.00 0.50 0.13	Very limited Slope Dusty Gravel content	1.00 0.50 0.13	Somewhat limited Dusty Slope	0.50 0.18
Dacont-----	30	Very limited Slope Gravel content	1.00 0.33	Very limited Slope Gravel content	1.00 0.33	Somewhat limited Slope	0.18
145: Nurkey-----	50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
Dacont-----	25	Very limited Slope Content of large stones	1.00 0.35	Very limited Slope Content of large stones	1.00 0.35	Very limited Slope Content of large stones	1.00 0.35
146: Nurkey-----	50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
Dawtonia-----	35	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
147: Oxhead-----	90	Somewhat limited Dusty Gravel content	0.50 0.32	Somewhat limited Dusty Gravel content	0.50 0.32	Somewhat limited Dusty	0.50
148: Packham-----	75	Somewhat limited Dusty Gravel content	0.50 0.41	Somewhat limited Dusty Gravel content	0.50 0.41	Somewhat limited Dusty	0.50
149: Packham-----	60	Somewhat limited Dusty Gravel content	0.50 0.41	Somewhat limited Dusty Gravel content	0.50 0.41	Somewhat limited Dusty	0.50
Perreau-----	30	Somewhat limited Dusty Slope	0.50 0.16	Somewhat limited Dusty Slope	0.50 0.16	Very limited Water erosion Dusty	1.00 0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
150: Packmo-----	65	Somewhat limited Dusty Gravel content	0.50 0.18	Somewhat limited Dusty Gravel content	0.50 0.18	Somewhat limited Dusty	0.50
Leadore-----	20	Somewhat limited Dusty Gravel content	0.50 0.22	Somewhat limited Dusty Gravel content	0.50 0.22	Somewhat limited Dusty	0.50
151: Packmo-----	50	Somewhat limited Dusty Gravel content	0.50 0.18	Somewhat limited Dusty Gravel content	0.50 0.18	Somewhat limited Dusty	0.50
Whiteknob-----	30	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
152: Pahsimeroi-----	90	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
153: Pahsimeroi-----	80	Very limited Slope Dusty Gravel content	1.00 0.50 0.50	Very limited Slope Dusty Gravel content	1.00 0.50 0.50	Somewhat limited Dusty	0.50
154: Pahsimeroi-----	85	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
155: Paint-----	65	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.11	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.11	Somewhat limited Dusty	0.50
Paint, cold-----	25	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.11	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.11	Somewhat limited Dusty	0.50
156: Paint-----	65	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.11	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.11	Somewhat limited Dusty	0.50
Bluedome-----	25	Somewhat limited Dusty Depth to cemented pan	0.50 0.10	Somewhat limited Dusty Depth to cemented pan	0.50 0.10	Somewhat limited Dusty	0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
157: Paint-----	75	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.11	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.11	Somewhat limited Dusty	0.50
Whitecloud-----	25	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
158: Parkay-----	45	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Slope	1.00
Donkehill-----	35	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.95	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.95	Very limited Slope	1.00
159: Parkay-----	70	Somewhat limited Slope Gravel content	0.04 0.02	Somewhat limited Slope Gravel content	0.04 0.02	Not limited	
Nurkey-----	15	Somewhat limited Dusty Gravel content Slope	0.50 0.36 0.04	Somewhat limited Dusty Gravel content Slope	0.50 0.36 0.04	Somewhat limited Dusty	0.50
160: Parkay-----	45	Very limited Slope Gravel content	1.00 0.54	Very limited Slope Gravel content	1.00 0.54	Very limited Slope	1.00
Nurkey-----	35	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
161: Parkay-----	45	Somewhat limited Slope Gravel content	0.84 0.54	Somewhat limited Slope Gravel content	0.84 0.54	Not limited	
Zeebar-----	45	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.33	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.33	Somewhat limited Dusty	0.50
162: Parkay-----	55	Very limited Slope Gravel content	1.00 0.54	Very limited Slope Gravel content	1.00 0.54	Very limited Slope	1.00
Friedman-----	30	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Very limited Slope	1.00

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
163: Pattee-----	50	Very limited Sodium content Dusty	1.00 0.50	Very limited Sodium content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
Perreau-----	25	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
164: Pattee-----	45	Very limited Sodium content Dusty	1.00 0.50	Very limited Sodium content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
Perreau-----	30	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
165: Pedoli-----	50	Somewhat limited Dusty Gravel content	0.50 0.32	Somewhat limited Dusty Gravel content	0.50 0.32	Somewhat limited Dusty	0.50
Dawtonia-----	35	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
166: Pedoli-----	50	Somewhat limited Dusty Gravel content	0.50 0.32	Somewhat limited Dusty Gravel content	0.50 0.32	Somewhat limited Dusty	0.50
Whiteknob-----	30	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
167: Penagul-----	45	Very limited Slope Depth to bedrock Gravel content Restricted permeability	1.00 1.00 1.00 0.43	Very limited Slope Depth to bedrock Gravel content Restricted permeability	1.00 1.00 1.00 0.43	Very limited Slope	1.00
Rosebriar-----	30	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.59	Very limited Slope Depth to bedrock Gravel content	1.00 1.00 0.59	Very limited Slope	1.00
168: Perreau-----	75	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
169: Perreau-----	75	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
170: Perreau-----	80	Somewhat limited Slope Dusty	0.96 0.50	Somewhat limited Slope Dusty	0.96 0.50	Very limited Water erosion Dusty	1.00 0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
171: Perreau-----	50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
Dawtonia-----	40	Somewhat limited Dusty Gravel content	0.50 0.41	Somewhat limited Dusty Gravel content	0.50 0.41	Somewhat limited Dusty	0.50
172: Perreau-----	50	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Water erosion Slope Dusty	1.00 1.00 0.50
Dawtonia-----	40	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty	1.00 0.50
173: Perreau-----	45	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Water erosion Slope Dusty	1.00 0.50 0.50
Pattee-----	30	Very limited Slope Sodium content Dusty	1.00 1.00 0.50	Very limited Slope Sodium content Dusty	1.00 1.00 0.50	Very limited Water erosion Slope Dusty	1.00 0.50 0.50
174: Pits, gravel-----	100	Not rated		Not rated		Not rated	
175: Pits, mine-----	100	Not rated		Not rated		Not rated	
176: Povey-----	85	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Slope	1.00
177: Povey-----	55	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Slope	1.00
Klug-----	40	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
178: Reck-----	40	Very limited Restricted permeability Slope Gravel content Content of large stones	1.00 1.00 0.03 0.02	Very limited Restricted permeability Slope Gravel content Content of large stones	1.00 1.00 0.03 0.02	Somewhat limited Slope Content of large stones	0.50 0.02

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
178: Threedot-----	35	Very limited Restricted permeability Slope Depth to saturated zone Gravel content Content of large stones	1.00 1.00 0.99 0.03 0.02	Very limited Restricted permeability Slope Depth to saturated zone Content of large stones	1.00 1.00 0.78 0.03 0.02	Somewhat limited Slope Depth to saturated zone Content of large stones	0.50 0.50 0.02
179: Redfish-----	40	Very limited Depth to saturated zone Flooding Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40
Fezip-----	30	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
Lilylake-----	20	Very limited Depth to saturated zone Flooding Ponding	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Content of organic matter	1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00
180: Resoot-----	45	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Somewhat limited Slope	0.50
Friedman-----	35	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Somewhat limited Slope	0.50
181: Resoot-----	55	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope	1.00
Friedman-----	30	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.14	Very limited Slope	1.00
182: Ringle-----	90	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty	0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
183: Rock outcrop-----	50	Not rated		Not rated		Not rated	
Rubble land-----	50	Not rated		Not rated		Not rated	
184: Sanfelipe-----	60	Somewhat limited Dusty Gravel content Slope	0.50 0.36 0.16	Somewhat limited Dusty Gravel content Slope	0.50 0.36 0.16	Somewhat limited Dusty	0.50
Sanfelipe, moist----	30	Somewhat limited Dusty Gravel content Slope	0.50 0.36 0.16	Somewhat limited Dusty Gravel content Slope	0.50 0.36 0.16	Somewhat limited Dusty	0.50
185: Shenon-----	85	Not limited		Not limited		Not limited	
186: Shenon-----	85	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Not limited	
187: Shenon-----	45	Not limited		Not limited		Not limited	
Perreau-----	35	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
188: Shenon-----	55	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Not limited	
Perreau-----	30	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
189: Simeroi-----	85	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty	0.50
190: Simeroi-----	95	Somewhat limited Dusty Gravel content Slope	0.50 0.36 0.16	Somewhat limited Dusty Gravel content Slope	0.50 0.36 0.16	Somewhat limited Dusty	0.50
191: Simeroi, cold-----	70	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty	0.50
Simeroi-----	20	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty	0.50
192: Simeroi-----	50	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.36	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.36	Somewhat limited Dusty	0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
192: Paint-----	25	Very limited Depth to cemented pan Slope Dusty Gravel content	1.00 0.84 0.50 0.11	Very limited Depth to cemented pan Slope Dusty Gravel content	1.00 0.84 0.50 0.11	Somewhat limited Dusty	0.50
Sanfelipe-----	15	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.36	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.36	Somewhat limited Dusty	0.50
193: Simeroi-----	80	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty	0.50
Whitecloud-----	15	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50
194: Skibo-----	75	Very limited Slope Dusty Gravel content	1.00 0.50 0.01	Very limited Slope Dusty Gravel content	1.00 0.50 0.01	Very limited Slope Dusty	1.00 0.50
195: Smut-----	60	Very limited Flooding Dusty Gravel content	1.00 0.50 0.18	Somewhat limited Dusty Gravel content	0.50 0.18	Somewhat limited Dusty	0.50
Cowbone-----	25	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
196: Smut-----	55	Very limited Flooding Dusty	1.00 0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
Yearian-----	30	Very limited Depth to saturated zone Flooding Gravel content	1.00 1.00 0.14	Very limited Depth to saturated zone Gravel content	1.00 0.14	Very limited Depth to saturated zone	1.00
197: Snowslide-----	90	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty	0.50
198: Snowslide-----	85	Very limited Gravel content Dusty	1.00 0.50	Very limited Gravel content Dusty	1.00 0.50	Somewhat limited Dusty	0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
199: Snowslide-----	85	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Gravel content Dusty	1.00 1.00 0.50	Very limited Slope Dusty	1.00 0.50
200: Snowslide-----	40	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Water erosion Slope Dusty	1.00 0.50 0.50
Badland-----	20	Not rated		Not rated		Not rated	
Perreau-----	20	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Water erosion Slope Dusty	1.00 0.50 0.50
201: Snowslide-----	60	Very limited Gravel content Slope Dusty	1.00 1.00 0.50	Very limited Gravel content Slope Dusty	1.00 1.00 0.50	Somewhat limited Dusty Slope	0.50 0.18
Farvant-----	30	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.33	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.33	Very limited Slope	1.00
202: Snowslide, south----	35	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.36	Somewhat limited Slope Dusty Gravel content	0.84 0.50 0.36	Somewhat limited Dusty	0.50
Zer-----	30	Very limited Slope Dusty Gravel content	1.00 0.50 0.16	Very limited Slope Dusty Gravel content	1.00 0.50 0.16	Somewhat limited Slope Dusty	0.50 0.50
Snowslide, north----	20	Very limited Slope Dusty Gravel content	1.00 0.50 0.36	Very limited Slope Dusty Gravel content	1.00 0.50 0.36	Somewhat limited Slope Dusty	0.50 0.50
203: Soen-----	80	Somewhat limited Restricted permeability Gravel content	0.41 0.36	Somewhat limited Restricted permeability Gravel content	0.41 0.36	Not limited	
204: Soen-----	40	Somewhat limited Slope Restricted permeability	0.63 0.41	Somewhat limited Slope Restricted permeability	0.63 0.41	Not limited	
Justesen-----	30	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Not limited	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
204: Howcan-----	15	Very limited Slope Gravel content	1.00 0.36	Very limited Slope Gravel content	1.00 0.36	Very limited Slope	1.00
205: Sparmo-----	95	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
206: Sparmo-----	45	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
Zer-----	40	Somewhat limited Dusty Gravel content	0.50 0.16	Somewhat limited Dusty Gravel content	0.50 0.16	Somewhat limited Dusty	0.50
207: Sparmo-----	45	Somewhat limited Dusty Slope	0.50 0.04	Somewhat limited Dusty Slope	0.50 0.04	Very limited Water erosion Dusty	1.00 0.50
Zer-----	45	Somewhat limited Dusty Gravel content Slope	0.50 0.16 0.04	Somewhat limited Dusty Gravel content Slope	0.50 0.16 0.04	Somewhat limited Dusty	0.50
208: Sprabat-----	80	Somewhat limited Gravel content	0.32	Somewhat limited Gravel content	0.32	Not limited	
209: Sprabat-----	65	Somewhat limited Gravel content	0.32	Somewhat limited Gravel content	0.32	Not limited	
Snowslide-----	25	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty	0.50
210: Struggle-----	55	Somewhat limited Gravel content Slope	0.32 0.16	Somewhat limited Gravel content Slope	0.32 0.16	Not limited	
Struggle, very stony	30	Very limited Slope Content of large stones	1.00 0.26	Very limited Slope Content of large stones	1.00 0.26	Very limited Slope Content of large stones	1.00 0.26
211: Surrett-----	80	Somewhat limited Depth to cemented pan Gravel content	0.65 0.41	Somewhat limited Depth to cemented pan Gravel content	0.65 0.41	Not limited	
212: Surrett-----	45	Somewhat limited Depth to cemented pan Gravel content	0.46 0.41	Somewhat limited Depth to cemented pan Gravel content	0.46 0.41	Not limited	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
212: Nurkey-----	45	Somewhat limited Dusty Gravel content	0.50 0.08	Somewhat limited Dusty Gravel content	0.50 0.08	Somewhat limited Dusty	0.50
213: Swahlen-----	65	Somewhat limited Dusty Gravel content	0.50 0.24	Somewhat limited Dusty Gravel content	0.50 0.24	Somewhat limited Dusty	0.50
Packham-----	20	Somewhat limited Dusty Gravel content	0.50 0.41	Somewhat limited Dusty Gravel content	0.50 0.41	Somewhat limited Dusty	0.50
214: Swahlen-----	55	Somewhat limited Dusty Gravel content	0.50 0.24	Somewhat limited Dusty Gravel content	0.50 0.24	Somewhat limited Dusty	0.50
Yearian-----	30	Very limited Depth to saturated zone Flooding Gravel content Content of large stones	1.00 1.00 0.01 0.01	Very limited Depth to saturated zone Gravel content Content of large stones	1.00 0.01 0.01	Very limited Depth to saturated zone Content of large stones	1.00 0.01
215: Thosand-----	55	Very limited Depth to saturated zone Flooding Ponding Salinity	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Salinity	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00
Chillybu-----	35	Very limited Depth to saturated zone Flooding Ponding	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Content of organic matter	1.00 1.00 1.00	Very limited Depth to saturated zone Content of organic matter Ponding	1.00 1.00 1.00
216: Thosand-----	45	Very limited Depth to saturated zone Flooding Ponding Salinity	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Salinity	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00
Sancrane-----	35	Very limited Depth to saturated zone Ponding Salinity	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Salinity	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00
217: Thosand-----	45	Very limited Depth to saturated zone Flooding Ponding Salinity	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Salinity	1.00 1.00 0.50	Very limited Depth to saturated zone Ponding	1.00 1.00

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
217: Wiskisprings-----	35	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
218: Threedot-----	90	Very limited Restricted permeability Slope Depth to saturated zone	1.00 1.00 0.99	Very limited Restricted permeability Slope Depth to saturated zone	1.00 1.00 0.78	Somewhat limited Slope Depth to saturated zone	0.50 0.50
219: Threedot-----	80	Very limited Restricted permeability Slope Depth to saturated zone Gravel content	1.00 1.00 0.99 0.29	Very limited Restricted permeability Slope Depth to saturated zone Gravel content	1.00 1.00 0.78 0.29	Somewhat limited Depth to saturated zone Slope	0.50 0.18
220: Threedot, dry-----	45	Very limited Slope Restricted permeability Depth to saturated zone Gravel content	1.00 1.00 0.99 0.29	Very limited Slope Restricted permeability Depth to saturated zone Gravel content	1.00 1.00 0.78 0.29	Very limited Slope Depth to saturated zone	1.00 0.50
Threedot-----	35	Very limited Slope Restricted permeability Depth to saturated zone	1.00 1.00 0.99	Very limited Slope Restricted permeability Depth to saturated zone	1.00 1.00 0.78	Very limited Slope Depth to saturated zone	1.00 0.50
221: Typic Cryaquepts----	80	Somewhat limited Depth to saturated zone	0.81	Somewhat limited Depth to saturated zone	0.48	Somewhat limited Depth to saturated zone	0.11
222: Ureal-----	40	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.26	Very limited Slope Depth to bedrock Content of large stones	1.00 1.00 0.26	Very limited Slope Content of large stones	1.00 0.26
Zeebar-----	30	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
Dacont-----	15	Very limited Slope Content of large stones	1.00 0.35	Very limited Slope Content of large stones	1.00 0.35	Very limited Slope Content of large stones	1.00 0.35

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
223: Venum-----	50	Very limited Slope Dusty Restricted permeability Content of large stones	1.00 0.50 0.41 0.14	Very limited Slope Dusty Restricted permeability Content of large stones	1.00 0.50 0.41 0.14	Very limited Slope Dusty Content of large stones	1.00 0.50 0.14
Cronks-----	40	Very limited Slope Restricted permeability Content of large stones	1.00 0.41 0.26	Very limited Slope Restricted permeability Content of large stones	1.00 0.41 0.26	Very limited Slope Content of large stones	1.00 0.26
224: Venum-----	60	Very limited Slope Dusty Restricted permeability Gravel content Content of large stones	1.00 0.50 0.41 0.13 0.01	Very limited Slope Dusty Restricted permeability Gravel content Content of large stones	1.00 0.50 0.41 0.13 0.01	Very limited Slope Dusty Content of large stones	1.00 0.50 0.01
Rock outcrop-----	20	Not rated		Not rated		Not rated	
225: Venum-----	55	Very limited Slope Dusty Restricted permeability Content of large stones	1.00 0.50 0.41 0.14	Very limited Slope Dusty Restricted permeability Content of large stones	1.00 0.50 0.41 0.14	Very limited Slope Dusty Content of large stones	1.00 0.50 0.14
Custco-----	30	Very limited Slope Gravel content	1.00 0.36	Very limited Slope Gravel content	1.00 0.36	Very limited Slope	1.00
226: Whitecloud-----	85	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
227: Whitecloud-----	80	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
228: Whitecloud-----	40	Somewhat limited Dusty Gravel content Slope	0.50 0.50 0.16	Somewhat limited Dusty Gravel content Slope	0.50 0.50 0.16	Somewhat limited Dusty	0.50
Sanfelipe-----	25	Somewhat limited Dusty Gravel content Slope	0.50 0.36 0.16	Somewhat limited Dusty Gravel content Slope	0.50 0.36 0.16	Somewhat limited Dusty	0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
228: Fandow-----	20	Very limited Sodium content Depth to cemented pan Dusty Gravel content Slope	1.00 1.00 0.50 0.41 0.16	Very limited Sodium content Depth to cemented pan Dusty Gravel content Slope	1.00 1.00 0.50 0.41 0.16	Somewhat limited Dusty	0.50
229: Whitecloud-----	65	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
Simeroi-----	25	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty Gravel content	0.50 0.36	Somewhat limited Dusty	0.50
230: Whiteknob-----	90	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
231: Whiteknob-----	60	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
Leadore-----	30	Somewhat limited Dusty Gravel content	0.50 0.22	Somewhat limited Dusty Gravel content	0.50 0.22	Somewhat limited Dusty	0.50
232: Whiteknob-----	60	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty Gravel content	0.50 0.50	Somewhat limited Dusty	0.50
Zer-----	20	Somewhat limited Dusty Gravel content	0.50 0.16	Somewhat limited Dusty Gravel content	0.50 0.16	Somewhat limited Dusty	0.50
233: Wiggleton-----	85	Somewhat limited Dusty Gravel content	0.50 0.41	Somewhat limited Dusty Gravel content	0.50 0.41	Somewhat limited Dusty	0.50
234: Wiggleton-----	45	Very limited Gravel content	1.00	Very limited Gravel content	1.00	Not limited	
Copperbasin-----	35	Very limited Flooding Gravel content	1.00 0.11	Somewhat limited Gravel content	0.11	Not limited	
235: Wimpey-----	35	Very limited Flooding Too clayey Restricted permeability Depth to saturated zone	1.00 1.00 0.96 0.96 0.07	Very limited Too clayey Restricted permeability Depth to saturated zone	1.00 0.96 0.96 0.03	Very limited Too clayey	1.00

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
235: Zeph-----	30	Very limited Depth to saturated zone Flooding Too clayey Restricted permeability	1.00 1.00 1.00 0.96	Very limited Depth to saturated zone Too clayey Restricted permeability	1.00 1.00 1.00 0.96	Very limited Depth to saturated zone Too clayey	1.00 1.00
Ajax-----	20	Very limited Depth to saturated zone Flooding Too clayey Restricted permeability	1.00 1.00 1.00 0.96	Very limited Depth to saturated zone Too clayey Restricted permeability	1.00 1.00 1.00 0.96	Very limited Depth to saturated zone Too clayey	1.00 1.00
236: Windcoat-----	90	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.41	Very limited Depth to cemented pan Dusty Gravel content	1.00 0.50 0.41	Somewhat limited Dusty	0.50
237: Windcoat-----	45	Very limited Depth to cemented pan Slope Dusty Gravel content	1.00 0.84 0.50 0.41	Very limited Depth to cemented pan Slope Dusty Gravel content	1.00 0.84 0.50 0.41	Somewhat limited Dusty	0.50
Fandow-----	35	Very limited Sodium content Depth to cemented pan Slope Dusty Gravel content	1.00 1.00 0.84 0.50 0.41	Very limited Sodium content Depth to cemented pan Slope Dusty Gravel content	1.00 1.00 0.84 0.50 0.41	Somewhat limited Dusty	0.50
238: Wiskisprings-----	45	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
Biglost-----	35	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40
239: Wiskisprings-----	40	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40
Biglost-----	30	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40
Copperbasin-----	20	Very limited Flooding Gravel content	1.00 1.00	Very limited Gravel content	1.00	Not limited	

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
240: Xeric Torrifluvents	75	Very limited Flooding Dusty	1.00 0.50	Somewhat limited Dusty	0.50	Somewhat limited Dusty	0.50
241: Yearian-----	80	Very limited Depth to saturated zone Flooding Gravel content Content of large stones	1.00 1.00 0.01 0.01	Very limited Depth to saturated zone Gravel content Content of large stones	1.00 0.01 0.01	Very limited Depth to saturated zone Content of large stones	1.00 0.01
242: Yearian-----	80	Very limited Depth to saturated zone Gravel content Content of large stones	1.00 0.10 0.01	Very limited Depth to saturated zone Gravel content Content of large stones	1.00 0.10 0.01	Very limited Depth to saturated zone Content of large stones	1.00 0.01
243: Zeale-----	75	Somewhat limited Slope Dusty Gravel content	0.63 0.50 0.33	Somewhat limited Slope Dusty Gravel content	0.63 0.50 0.33	Somewhat limited Dusty	0.50
Meegero-----	15	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Not limited	
244: Zeale-----	55	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
Meegero-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
245: Zeale-----	45	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
Zeelnot-----	30	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty	1.00 0.50
246: Zeebar-----	35	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
246: Nielsen-----	30	Very limited Slope Depth to bedrock Restricted permeability Content of large stones	1.00 1.00 0.21 0.08	Very limited Slope Depth to bedrock Restricted permeability Content of large stones	1.00 1.00 0.21 0.08	Very limited Slope Content of large stones	1.00 0.08
Povey-----	20	Very limited Slope Gravel content	1.00 1.00	Very limited Slope Gravel content	1.00 1.00	Very limited Slope	1.00
247: Zeebar-----	55	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
Parkay-----	30	Very limited Slope Gravel content	1.00 0.54	Very limited Slope Gravel content	1.00 0.54	Very limited Slope	1.00
248: Zeebar-----	45	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty Gravel content	1.00 0.50 0.33	Very limited Slope Dusty	1.00 0.50
Resoot-----	35	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope Restricted permeability Gravel content	1.00 0.96 0.36	Very limited Slope	1.00
249: Zeegee-----	45	Very limited Depth to saturated zone Flooding Too clayey Restricted permeability	1.00 1.00 1.00 0.21	Very limited Depth to saturated zone Too clayey Restricted permeability	1.00 1.00 0.21	Very limited Depth to saturated zone Too clayey	1.00 1.00
Ajax-----	35	Very limited Depth to saturated zone Flooding Too clayey Restricted permeability	1.00 1.00 1.00 0.96	Very limited Depth to saturated zone Too clayey Restricted permeability	1.00 1.00 0.96	Very limited Depth to saturated zone Too clayey	1.00 1.00
250: Zeelnot-----	85	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty Gravel content	1.00 0.50 0.41	Very limited Slope Dusty	1.00 0.50

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
251: Zeelnot-----	90	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Gravel content	0.41	Gravel content	0.41		
252: Zeelnot-----	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Gravel content	0.41	Gravel content	0.41		
Meegernot-----	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel content	0.54	Gravel content	0.54		
Adek-----	15	Very limited		Very limited		Somewhat limited	
		Gravel content	1.00	Gravel content	1.00	Dusty	0.50
		Slope	1.00	Slope	1.00		
		Dusty	0.50	Dusty	0.50		
253: Zer-----	95	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Gravel content	0.16	Gravel content	0.16		
254: Zer-----	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Gravel content	0.16	Gravel content	0.16		
255: Zer-----	85	Very limited		Very limited		Somewhat limited	
		Salinity	1.00	Salinity	1.00	Dusty	0.50
		Gravel content	0.59	Gravel content	0.59		
		Dusty	0.50	Dusty	0.50		
256: Zer-----	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Gravel content	0.16	Gravel content	0.16		
		Slope	0.04	Slope	0.04		
257: Zer-----	80	Very limited		Very limited		Somewhat limited	
		Salinity	1.00	Salinity	1.00	Dusty	0.50
		Gravel content	1.00	Gravel content	1.00		
		Dusty	0.50	Dusty	0.50		
258: Zer-----	80	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Content of large stones	0.18	Content of large stones	0.18	Content of large stones	0.18
		Gravel content	0.01	Gravel content	0.01		

Table 7.--Recreation--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Paths and trails	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
259:							
Zer-----	75	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Gravel content	0.16	Gravel content	0.16		
Snowslide-----	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Gravel content	0.36	Gravel content	0.36		
260:							
Zer-----	70	Very limited		Very limited		Somewhat limited	
		Slope	1.00	Slope	1.00	Dusty	0.50
		Dusty	0.50	Dusty	0.50		
		Gravel content	0.16	Gravel content	0.16		
Snowslide-----	15	Very limited		Very limited		Somewhat limited	
		Slope	1.00	Slope	1.00	Dusty	0.50
		Dusty	0.50	Dusty	0.50		
		Gravel content	0.36	Gravel content	0.36		
261:							
Zer-----	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Gravel content	0.16	Gravel content	0.16		
Whiteknob-----	20	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Gravel content	0.50	Gravel content	0.50		
262:							
Simeroi-----	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Gravel content	1.00	Gravel content	1.00	Dusty	0.50
		Dusty	0.50	Dusty	0.50		
263:							
Water-----	100	Not rated		Not rated		Not rated	

Table 8.--Building Site Development

(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 with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Alpinepeak-----	75	Somewhat limited Depth to saturated zone	0.95	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to saturated zone	1.00 0.95
2: Aquents-----	75	Very limited Flooding Depth to saturated zone Content of large stones	1.00 1.00 0.11	Very limited Depth to saturated zone Flooding Frost action Content of large stones	1.00 1.00 0.50 0.11	Very limited Depth to saturated zone Cutbanks cave Flooding Content of large stones	1.00 1.00 1.00 0.80 0.11
Riverwash-----	20	Not rated		Not rated		Not rated	
3: Arbus-----	85	Not limited		Not limited		Very limited Cutbanks cave	1.00
4: Arco-----	90	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Frost action Flooding Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 1.00 0.60 0.10
5: Badland-----	50	Not rated		Not rated		Not rated	
Millhi-----	35	Very limited Depth to saturated zone Shrink-swell Slope	1.00 1.00 1.00	Very limited Depth to saturated zone Shrink-swell Slope Frost action	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Slope Too clayey Cutbanks cave	1.00 1.00 0.28 0.10
6: Bartonflat-----	80	Somewhat limited Content of large stones	0.11	Somewhat limited Content of large stones	0.11	Very limited Cutbanks cave Content of large stones	1.00 0.11
7: Bartonflat-----	75	Somewhat limited Content of large stones	0.20	Somewhat limited Content of large stones	0.20	Very limited Cutbanks cave Content of large stones	1.00 0.20
8: Bartonhill-----	55	Somewhat limited Slope	0.16	Somewhat limited Frost action Slope	0.50 0.16	Very limited Cutbanks cave Slope	1.00 0.16

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
8: Whitecloud-----	30	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Cutbanks cave Slope	1.00 0.16
9: Bayhorse, north----	40	Very limited Slope Depth to hard bedrock Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 1.00 0.10
Bayhorse, south----	35	Very limited Slope Depth to hard bedrock hard	1.00 1.00	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
10: Bayhorse-----	45	Very limited Slope Depth to hard bedrock	1.00 1.00	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
Dawtonia-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
11: Bigflat-----	60	Very limited Shrink-swell	1.00	Very limited Frost action Shrink-swell	1.00 1.00	Very limited Cutbanks cave	1.00
Dacont-----	20	Somewhat limited Content of large stones	0.19	Somewhat limited Frost action Content of large stones	0.50 0.19	Very limited Cutbanks cave Content of large stones	1.00 0.19
12: Biglost-----	50	Very limited Flooding Depth to saturated zone	1.00 0.08	Very limited Flooding Frost action	1.00 0.50	Very limited Cutbanks cave Flooding Depth to saturated zone	1.00 0.60 0.08
Copperbasin-----	30	Very limited Flooding Content of large stones Depth to saturated zone	1.00 1.00 1.00	Very limited Flooding Content of large stones	1.00 1.00	Very limited Cutbanks cave Content of large stones Depth to saturated zone Flooding	1.00 1.00 1.00 0.60
13: Bigrant, very poorly drained-----	45	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Frost action Flooding Shrink-swell	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 1.00 0.60 0.10

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
13: Bigrant, poorly drained-----	45	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Frost action Flooding Shrink-swell	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Flooding Too clayey Cutbanks cave	1.00 0.60 0.12 0.10
14: Bigrant-----	35	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Frost action Flooding Shrink-swell	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Flooding Too clayey Cutbanks cave	1.00 0.60 0.12 0.10
Thosand-----	30	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Frost action Flooding Ponding	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Ponding Flooding	1.00 1.00 1.00 0.60
Dickeypeak-----	20	Very limited Depth to saturated zone	1.00	Very limited Frost action	1.00	Very limited Cutbanks cave Depth to saturated zone	1.00 1.00
15: Blackfoot-----	75	Somewhat limited Depth to saturated zone	0.15	Very limited Frost action	1.00	Somewhat limited Depth to saturated zone Cutbanks cave	0.15 0.10
16: Blackfoot-----	45	Somewhat limited Depth to saturated zone	0.15	Very limited Frost action	1.00	Somewhat limited Depth to saturated zone Cutbanks cave	0.15 0.10
Borco-----	40	Not limited		Not limited		Very limited Cutbanks cave	1.00
17: Bluedome-----	80	Somewhat limited Depth to thin cemented pan	0.16	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to thin cemented pan	1.00 0.16
18: Bock-----	55	Not limited		Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10
Breitenbach-----	25	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
19: Bock-----	55	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
19: Bromaglin-----	35	Not limited		Not limited		Very limited Cutbanks cave	1.00
20: Bockston-----	75	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
21: Brabas-----	65	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope	1.00	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.12
Heathcoat-----	25	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 0.10 0.04
22: Breitenbach-----	75	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
23: Breitenbach-----	75	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
24: Breitenbach-----	75	Somewhat limited Slope	0.16	Somewhat limited Frost action Slope	0.50 0.16	Very limited Cutbanks cave Slope	1.00 0.16
25: Bunting-----	95	Not limited		Not limited		Very limited Cutbanks cave	1.00
26: Bunting-----	95	Not limited		Not limited		Very limited Cutbanks cave	1.00
27: Bunting-----	70	Not limited		Not limited		Very limited Cutbanks cave	1.00
Moffspring-----	25	Somewhat limited Depth to saturated zone	0.35	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to saturated zone	1.00 0.35
28: Burststadt-----	50	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding	1.00	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 1.00 0.60
Tohobit-----	35	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.03	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 0.60

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
29: Busterback-----	60	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Wiggleton-----	20	Not limited		Not limited		Very limited Cutbanks cave	1.00
30: Calcids-----	35	Very limited Slope Content of large stones	1.00 0.67	Very limited Slope Content of large stones Frost action	1.00 0.67 0.50	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.67
Badland-----	25	Not rated		Not rated		Not rated	
Xerolls-----	20	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10
31: Calcids-----	45	Very limited Slope Content of large stones	1.00 0.83	Very limited Slope Content of large stones Frost action	1.00 0.83 0.50	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.83
Rubble land-----	25	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
32: Castlepeak-----	50	Somewhat limited Content of large stones	0.93	Somewhat limited Content of large stones	0.93	Very limited Cutbanks cave Content of large stones	1.00 0.93
Yankeefork-----	40	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
33: Chamberlain-----	80	Not limited		Somewhat limited Shrink-swell Frost action	0.50 0.50	Very limited Cutbanks cave	1.00
34: Coalkiln-----	70	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Zeelnot-----	20	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
35: Copperbasin-----	55	Very limited Flooding Depth to saturated zone Content of large stones	1.00 1.00 0.70	Very limited Flooding Content of large stones	1.00 0.70	Very limited Cutbanks cave Depth to saturated zone Content of large stones Flooding	1.00 1.00 0.70 0.60
Redfish-----	20	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Flooding Frost action	1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 0.80
36: Copperbasin-----	45	Very limited Flooding Content of large stones Depth to saturated zone	1.00 1.00 1.00	Very limited Flooding Content of large stones	1.00 1.00	Very limited Cutbanks cave Content of large stones Depth to saturated zone Flooding	1.00 1.00 1.00 1.00 0.60
Redfish-----	35	Very limited Flooding Depth to saturated zone Content of large stones	1.00 1.00 0.02	Very limited Depth to saturated zone Flooding Frost action Content of large stones	1.00 1.00 1.00 0.50 0.02	Very limited Depth to saturated zone Cutbanks cave Flooding Content of large stones	1.00 1.00 1.00 0.80 0.02
37: Cowbone-----	45	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Frost action Flooding	1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.80
Tohobit-----	35	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.03	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
38: Cronks-----	55	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.71	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.71	Very limited Slope Content of large stones Cutbanks cave Too clayey	1.00 0.71 0.10 0.03
Challis-----	35	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 1.00 0.12

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
39: Cronks-----	60	Very limited Shrink-swell Content of large stones Slope	1.00 0.87 0.84	Very limited Shrink-swell Content of large stones Slope	1.00 0.87 0.84	Somewhat limited Content of large stones Slope Cutbanks cave Too clayey	0.87 0.84 0.10 0.03
Venum-----	30	Somewhat limited Slope Shrink-swell Content of large stones	0.84 0.50 0.37	Somewhat limited Slope Shrink-swell Content of large stones	0.84 0.50 0.37	Very limited Cutbanks cave Slope Content of large stones Too clayey	1.00 0.84 0.37 0.03
40: Cryolls-----	65	Very limited Slope Content of large stones	1.00 0.76	Very limited Slope Content of large stones Frost action	1.00 0.76 0.50	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.76
Rubble land-----	20	Not rated		Not rated		Not rated	
41: Cryolls-----	50	Very limited Slope Depth to hard bedrock Content of large stones	1.00 1.00 0.95	Very limited Slope Content of large stones Frost action Depth to hard bedrock	1.00 0.95 0.50 0.20	Very limited Depth to hard bedrock Slope Cutbanks cave Content of large stones	1.00 1.00 1.00 0.95
Rubble land-----	20	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
42: Cryepts-----	50	Very limited Slope Content of large stones	1.00 0.66	Very limited Slope Content of large stones Frost action	1.00 0.66 0.50	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.66
Rubble land-----	20	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
43: Custco-----	80	Somewhat limited Slope	0.63	Somewhat limited Slope Frost action	0.63 0.50	Very limited Cutbanks cave Slope	1.00 0.63
44: Dacont-----	50	Very limited Slope Content of large stones	1.00 0.72	Very limited Slope Content of large stones Frost action	1.00 0.72 0.50	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.72

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
44: Custco-----	35	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
45: Dacont-----	35	Very limited Slope	1.00	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Cutbanks cave Slope	1.00 1.00
Resoot-----	30	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.03
Nielsen-----	25	Very limited Depth to hard bedrock Slope Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Shrink-swell Frost action	1.00 1.00 0.50 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 1.00 0.10
46: Dacont-----	40	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Zeebar-----	40	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
47: Darlington-----	55	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Lesbut-----	25	Somewhat limited Content of large stones	0.09	Somewhat limited Content of large stones	0.09	Very limited Cutbanks cave Content of large stones	1.00 0.09
48: Dawtonia-----	80	Not limited		Not limited		Very limited Cutbanks cave	1.00
49: Dawtonia-----	75	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00
Dawtonia, cold-----	20	Not limited		Not limited		Very limited Cutbanks cave	1.00
50: Dawtonia, cold-----	85	Not limited		Not limited		Very limited Cutbanks cave	1.00
Dawtonia-----	15	Not limited		Not limited		Very limited Cutbanks cave	1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
51: Dawtonia-----	45	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
Frailton-----	35	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 1.00	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 1.00	Very limited Depth to soft bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 1.00 0.10
52: Dawtonia-----	35	Very limited Slope	1.00	Very limited Slope Shrink-swell	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00
Kehar-----	30	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Cutbanks cave Slope	1.00 1.00
Soen-----	20	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 0.10 0.03
53: Dawtonia-----	60	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
Rock outcrop-----	20	Not rated		Not rated		Not rated	
54: Dawtonia-----	50	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
Custco-----	35	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
55: Dawtonia-----	50	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
Dacont-----	30	Very limited Slope	1.00	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00
56: Derwell-----	65	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Whiteknob-----	15	Not limited		Not limited		Very limited Cutbanks cave	1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
57: Derwell-----	30	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Zer-----	25	Somewhat limited Content of large stones	0.07	Somewhat limited Content of large stones	0.07	Very limited Cutbanks cave Content of large stones	1.00 0.07
Packmo-----	20	Somewhat limited Slope Content of large stones	0.84 0.01	Somewhat limited Slope Frost action Content of large stones	0.84 0.50 0.01	Very limited Cutbanks cave Slope Content of large stones	1.00 0.84 0.01
58: Dickeypeak-----	60	Very limited Depth to saturated zone	1.00	Very limited Frost action	1.00	Very limited Cutbanks cave Depth to saturated zone	1.00 1.00
Bigrant-----	25	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Frost action Flooding Shrink-swell	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Flooding Too clayey Cutbanks cave	1.00 0.60 0.12 0.10
59: Donkehill-----	85	Very limited Slope Depth to hard bedrock Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Shrink-swell Frost action	1.00 1.00 0.50 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
60: Donkehill-----	45	Very limited Depth to hard bedrock Slope Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Shrink-swell Frost action	1.00 1.00 0.50 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
Zeebar-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00
61: Donkehill-----	40	Very limited Slope Depth to hard bedrock Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Shrink-swell Frost action	1.00 1.00 0.50 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
Zeebar-----	35	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
62: Dumps, mine-----	100	Not rated		Not rated		Not rated	
63: Escarlo-----	45	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.03
Heathcoat-----	40	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.04
64: Escarlo-----	55	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Cutbanks cave Slope	1.00 1.00
Heathcoat-----	40	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.04
65: Ezbin-----	40	Very limited Slope Content of large stones Shrink-swell	1.00 0.67 0.50	Very limited Slope Content of large stones Shrink-swell Frost action	1.00 0.67 0.50 0.50	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.67
Zeebar-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Nielsen-----	15	Very limited Slope Depth to hard bedrock Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Shrink-swell Frost action	1.00 1.00 0.50 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
66: Fandow-----	85	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan	1.00	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00
67: Fandow-----	50	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan	1.00	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00
Arbus-----	45	Not limited		Not limited		Very limited Cutbanks cave	1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
68: Farvant-----	35	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.21	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.21	Very limited Depth to soft bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 0.21 0.10
Badland-----	25	Not rated		Not rated		Not rated	
Gradco-----	20	Very limited Slope Content of large stones Depth to soft bedrock	1.00 0.78 0.54	Very limited Slope Content of large stones	1.00 0.78	Very limited Slope Content of large stones Depth to soft bedrock Cutbanks cave	1.00 0.78 0.54 0.10
69: Farvant-----	45	Very limited Slope Depth to soft bedrock	1.00 1.00	Very limited Slope Depth to soft bedrock	1.00 1.00	Very limited Depth to soft bedrock Slope Cutbanks cave	1.00 1.00 1.00 0.10
Sactus-----	30	Very limited Depth to hard bedrock Slope	1.00 1.00	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
Dawtonia-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
70: Fezip-----	35	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Frost action Flooding	1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.80
Lemroi-----	25	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Frost action Flooding Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
Redfish-----	15	Very limited Flooding Depth to saturated zone Content of large stones	1.00 1.00 0.02	Very limited Depth to saturated zone Flooding Frost action Content of large stones	1.00 1.00 0.50 0.02	Very limited Depth to saturated zone Cutbanks cave Flooding Content of large stones	1.00 1.00 1.00 0.80 0.02

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
71: Fezip-----	40	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Frost action Flooding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.80
Redfish-----	25	Very limited Flooding Depth to saturated zone Content of large stones	1.00 1.00 0.02	Very limited Depth to saturated zone Flooding Frost action Content of large stones	1.00 1.00 1.00 0.50 0.02	Very limited Depth to saturated zone Cutbanks cave Flooding Content of large stones	1.00 1.00 1.00 0.80 0.02
Copperbasin-----	15	Very limited Flooding Depth to saturated zone Content of large stones	1.00 1.00 0.87	Very limited Flooding Content of large stones	1.00 1.00 0.87	Very limited Cutbanks cave Depth to saturated zone Content of large stones Flooding	1.00 1.00 0.87 0.60
72: Firebox-----	85	Not limited		Not limited		Very limited Cutbanks cave	1.00
73: Firebox-----	95	Very limited Content of large stones	1.00	Very limited Content of large stones	1.00	Very limited Content of large stones Cutbanks cave	1.00 1.00
74: Frailton-----	50	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.31	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.31	Very limited Depth to soft bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 0.31 0.10
Dawtonia-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
75: Frailton-----	50	Very limited Slope Depth to soft bedrock	1.00 1.00	Very limited Slope Depth to soft bedrock	1.00 1.00	Very limited Depth to soft bedrock Slope Cutbanks cave	1.00 1.00 1.00 0.10
Gradco-----	25	Very limited Slope Content of large stones Depth to soft bedrock	1.00 0.72 0.46	Very limited Slope Content of large stones	1.00 0.72	Very limited Slope Content of large stones Depth to soft bedrock Cutbanks cave	1.00 0.72 0.46 0.10

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
76: Friedman-----	40	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.12
Reck-----	25	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 0.12	Very limited Shrink-swell Slope Frost action Content of large stones	1.00 1.00 0.50 0.12	Very limited Slope Too clayey Content of large stones Cutbanks cave	1.00 0.50 0.12 0.10
Goldhill-----	20	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.28
77: Gaciba-----	45	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Depth to hard bedrock Slope Frost action	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
Cronks-----	30	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.87	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.87	Very limited Slope Content of large stones Cutbanks cave Too clayey	1.00 0.87 0.10 0.03
78: Gaciba-----	70	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Depth to hard bedrock Slope Frost action	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
Dacont-----	15	Very limited Slope	1.00	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00
79: Gany-----	80	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
80: Geemore-----	90	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Frost action	0.50 0.50	Very limited Cutbanks cave	1.00
81: Germer-----	55	Not limited		Not limited		Very limited Cutbanks cave	1.00
Dawtonia-----	25	Not limited		Not limited		Very limited Cutbanks cave	1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
82: Goldaho-----	65	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope	1.00 1.00	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.28
Zer-----	25	Very limited Slope Content of large stones	1.00 0.18	Very limited Slope Content of large stones	1.00 0.18	Very limited Cutbanks cave Slope Content of large stones	1.00 1.00 0.18
83: Goldhill-----	50	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.28
Zeebar-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
84: Goosebury-----	80	Not limited		Not limited		Very limited Cutbanks cave	1.00
85: Goosebury-----	90	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Cutbanks cave Slope	1.00 0.84
86: Goosebury-----	60	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Cutbanks cave Slope	1.00 0.84
Windcoat-----	25	Very limited Depth to thin cemented pan Slope	1.00 0.84	Somewhat limited Depth to thin cemented pan Slope	1.00 0.84	Very limited Depth to thin cemented pan Cutbanks cave Slope	1.00 1.00 0.84
87: Gradco-----	45	Very limited Slope Content of large stones Depth to soft bedrock	1.00 0.92 0.20	Very limited Slope Content of large stones	1.00 0.92	Very limited Slope Content of large stones Depth to soft bedrock Cutbanks cave	1.00 0.92 0.20 0.10
Farvant-----	35	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.27	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.27	Very limited Depth to soft bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 0.27 0.10

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
88: Gradco-----	50	Very limited Slope Content of large stones Depth to soft bedrock	1.00 0.92 0.20	Very limited Slope Content of large stones	1.00 0.92	Very limited Slope Content of large stones Depth to soft bedrock Cutbanks cave	1.00 0.92 0.20 0.10
Farvant-----	35	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.27	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.27	Very limited Depth to soft bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 0.27 0.10
89: Hagenbarth-----	65	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Brabas-----	25	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope	1.00	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.12
90: Heathcoat-----	75	Very limited Shrink-swell Slope	1.00 0.63	Very limited Shrink-swell Slope Frost action	1.00 0.63 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 0.63 0.04
91: Heathcoat-----	50	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.04
Goldhill-----	30	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.28
92: Heathcoat-----	45	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.04
Soen-----	30	Very limited Slope Shrink-swell	1.00 0.50	Very limited Shrink-swell Slope Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 0.10 0.03
93: Howcan-----	35	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
93: Hagenbarth-----	30	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Hutchley-----	20	Very limited Depth to hard bedrock Slope Shrink-swell Content of large stones	1.00 0.84 0.50 0.01	Very limited Depth to hard bedrock Slope Shrink-swell Frost action Content of large stones	1.00 0.84 0.50 0.50 0.01	Very limited Depth to hard bedrock Slope Cutbanks cave Content of large stones	1.00 0.84 0.10 0.01
94: Hutchley-----	40	Very limited Depth to hard bedrock Slope Shrink-swell Content of large stones	1.00 1.00 0.50 0.07	Very limited Depth to hard bedrock Slope Shrink-swell Frost action Content of large stones	1.00 1.00 0.50 0.50 0.07	Very limited Depth to hard bedrock Slope Cutbanks cave Content of large stones	1.00 1.00 0.10 0.07
Nurkey-----	35	Very limited Slope Content of large stones	1.00 0.06	Very limited Slope Frost action Content of large stones	1.00 0.50 0.06	Very limited Cutbanks cave Slope Content of large stones	1.00 1.00 0.06
95: Ike-----	40	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
Rock outcrop-----	20	Not rated		Not rated		Not rated	
Jimbee-----	15	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Depth to hard bedrock Slope Frost action	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
96: Inferno-----	40	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 1.00 0.50
Grouseville-----	35	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 0.10

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
97: Jimbee-----	45	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Depth to hard bedrock Slope Frost action	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
Rock outcrop-----	20	Not rated		Not rated		Not rated	
Ike-----	15	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
98: Justesen-----	50	Somewhat limited Shrink-swell Slope	0.50 0.04	Somewhat limited Shrink-swell Frost action Slope	0.50 0.50 0.04	Somewhat limited Cutbanks cave Slope	0.10 0.04
Drage-----	35	Somewhat limited Shrink-swell Slope	0.50 0.04	Somewhat limited Shrink-swell Frost action Slope	0.50 0.50 0.04	Very limited Cutbanks cave Slope	1.00 0.04
99: Kadletz-----	90	Not limited		Not limited		Very limited Cutbanks cave	1.00
100: Kehar-----	80	Somewhat limited Slope Shrink-swell	0.96 0.50	Very limited Shrink-swell Slope	1.00 0.96	Very limited Cutbanks cave Slope	1.00 0.96
101: Kehar-----	55	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Cutbanks cave	1.00 1.00
Kehar, eroded-----	20	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Cutbanks cave	1.00 1.00
102: Ketchum-----	80	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
103: Ketchum, cold-----	70	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Frost action Content of large stones	1.00 0.50 0.01	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.01
Ketchum-----	15	Very limited Slope Content of large stones	1.00 0.04	Very limited Slope Frost action Content of large stones	1.00 0.50 0.04	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.04

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
104: Klug-----	85	Somewhat limited Slope	0.84	Somewhat limited Slope Frost action	0.84 0.50	Very limited Cutbanks cave Slope	1.00 0.84
105: Klug-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Gaciba-----	25	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Depth to hard bedrock Slope Frost action	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
Dacont-----	20	Very limited Slope	1.00	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00
106: Klug-----	60	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Povey-----	25	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Frost action Content of large stones	1.00 0.50 0.01	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.01
107: Klug-----	55	Very limited Slope Content of large stones	1.00 0.03	Very limited Slope Frost action Content of large stones	1.00 0.50 0.03	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.03
Povey-----	25	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Frost action Content of large stones	1.00 0.50 0.01	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.01
108: Klug-----	50	Very limited Slope Content of large stones	1.00 0.04	Very limited Slope Frost action Content of large stones	1.00 0.50 0.04	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.04
Zeebar-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
109: Lacrol-----	65	Very limited Slope Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Depth to saturated zone Slope Shrink-swell Frost action	1.00 1.00 1.00 1.00 0.50	Very limited Slope Depth to saturated zone Too clayey Cutbanks cave	1.00 1.00 0.50 0.10
Friedman-----	20	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave	1.00 1.00
110: Lag-----	80	Very limited Slope Content of large stones	1.00 0.16	Very limited Slope Frost action Content of large stones	1.00 0.50 0.16	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.16
111: Lag-----	75	Very limited Slope Content of large stones	1.00 0.40	Very limited Slope Frost action Content of large stones	1.00 0.50 0.40	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.40
112: Lag-----	70	Very limited Slope Content of large stones	1.00 0.16	Very limited Slope Frost action Content of large stones	1.00 0.50 0.16	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.16
Klug-----	15	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
113: Langer-----	75	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00
114: Leadore-----	90	Somewhat limited Content of large stones	0.28	Somewhat limited Content of large stones	0.28	Very limited Cutbanks cave Content of large stones	1.00 0.28
115: Leatherman-----	65	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan Frost action	1.00 0.50	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00
Arbus-----	35	Not limited		Not limited		Very limited Cutbanks cave	1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
116: Leatherman-----	45	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan Frost action	1.00 0.50	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00
Bluedome-----	30	Somewhat limited Depth to thin cemented pan	0.97	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to thin cemented pan	1.00 0.97
117: Lemco-----	65	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 1.00 0.12
Friedman-----	25	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 1.00 0.12
118: Lemhi-----	45	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Frost action Flooding Depth to saturated zone	1.00 1.00 0.94	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
Copperbasin-----	20	Very limited Flooding Content of large stones Depth to saturated zone	1.00 1.00 1.00	Very limited Flooding Content of large stones	1.00 1.00	Very limited Cutbanks cave Content of large stones Depth to saturated zone Flooding	1.00 1.00 1.00 1.00 0.60
Lilylake-----	15	Very limited Ponding Flooding Depth to saturated zone Content of large stones	1.00 1.00 1.00 0.29	Very limited Ponding Depth to saturated zone Frost action Flooding Content of large stones	1.00 1.00 1.00 1.00 0.29	Very limited Ponding Depth to saturated zone Cutbanks cave Flooding Content of large stones	1.00 1.00 1.00 0.80 0.29
119: Lemroi-----	45	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Frost action Flooding Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
Leecreek-----	40	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone Frost action	1.00 0.94 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
120: Lemroi-----	40	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Frost action Flooding Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
Leecreek-----	30	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone Frost action	1.00 1.00 0.94 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
Grandjean-----	20	Very limited Ponding Subsidence Flooding Depth to saturated zone	1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Subsidence Frost action Flooding	1.00 1.00 1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Cutbanks cave Content of organic matter Flooding	1.00 1.00 1.00 1.00 1.00 0.80
121: Lesbut-----	85	Somewhat limited Content of large stones	0.09	Somewhat limited Content of large stones	0.09	Very limited Cutbanks cave Content of large stones	1.00 0.09
122: Lilylake-----	50	Very limited Ponding Flooding Depth to saturated zone Content of large stones	1.00 1.00 1.00 0.05	Very limited Ponding Depth to saturated zone Frost action Flooding Content of large stones	1.00 1.00 1.00 1.00 0.05	Very limited Ponding Depth to saturated zone Cutbanks cave Flooding Content of large stones	1.00 1.00 1.00 0.80 0.05
Grandjean-----	25	Very limited Ponding Subsidence Flooding Depth to saturated zone	1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Subsidence Frost action Flooding	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Cutbanks cave Content of organic matter Flooding	1.00 1.00 1.00 1.00 0.80
123: Mahaffey-----	40	Very limited Flooding Depth to saturated zone	1.00 0.99	Very limited Flooding Frost action	1.00 0.50	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 0.99 0.60
Copperbasin-----	20	Very limited Flooding Depth to saturated zone Content of large stones	1.00 1.00 0.92	Very limited Flooding Content of large stones	1.00 0.92	Very limited Cutbanks cave Depth to saturated zone Content of large stones Flooding	1.00 1.00 0.92 0.60

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
123: Wiskisprings-----	20	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Flooding Frost action	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.80
124: Meegernot-----	75	Very limited Slope	1.00	Very limited Slope Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
125: Meegero-----	60	Very limited Slope	1.00	Very limited Slope Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Zeale-----	25	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Frost action Content of large stones	1.00 1.00 0.50 0.08	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 1.00 0.08
126: Millhi-----	90	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell Frost action	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.88 0.10
127: Millhi-----	85	Very limited Depth to saturated zone Shrink-swell Slope	1.00 1.00 0.16	Very limited Depth to saturated zone Shrink-swell Frost action Slope	1.00 1.00 1.00 0.50 0.16	Very limited Depth to saturated zone Too clayey Slope Cutbanks cave	1.00 0.88 0.16 0.10
128: Millhi-----	45	Very limited Depth to saturated zone Shrink-swell Slope	1.00 1.00 1.00	Very limited Depth to saturated zone Shrink-swell Slope Frost action	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Slope Too clayey Cutbanks cave	1.00 1.00 0.88 0.10
Millhi, eroded-----	35	Very limited Slope Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Depth to saturated zone Slope Shrink-swell Frost action	1.00 1.00 1.00 1.00 0.50	Very limited Slope Depth to saturated zone Too clayey Cutbanks cave	1.00 1.00 0.28 0.10
129: Millhi-----	50	Very limited Depth to saturated zone Shrink-swell Slope	1.00 1.00 1.00	Very limited Depth to saturated zone Shrink-swell Slope Frost action	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Slope Too clayey Cutbanks cave	1.00 1.00 0.88 0.10

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
129: Badland-----	30	Not rated		Not rated		Not rated	
130: Millhi-----	65	Very limited Slope Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Depth to saturated zone Slope Shrink-swell Frost action	1.00 1.00 1.00 1.00 0.50	Very limited Slope Depth to saturated zone Too clayey Cutbanks cave	1.00 1.00 0.88 0.10
Lacrol-----	25	Very limited Slope Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Depth to saturated zone Slope Shrink-swell Frost action	1.00 1.00 1.00 1.00 0.50	Very limited Slope Depth to saturated zone Too clayey Cutbanks cave	1.00 1.00 0.50 0.10
131: Misfire-----	35	Very limited Slope Content of large stones	1.00 0.02	Very limited Slope Content of large stones	1.00 1.00 0.02	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.02
Pattee-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
Dawtonia-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
132: Mitring-----	50	Very limited Slope Depth to soft bedrock	1.00 0.46	Very limited Slope	1.00	Very limited Slope Cutbanks cave Depth to soft bedrock	1.00 1.00 0.46
Holinrock-----	35	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Slope Depth to hard bedrock	1.00 0.54	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 1.00
133: Mogg-----	55	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Depth to hard bedrock Slope Frost action	1.00 1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 1.00 0.10
Dawtonia-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
134: Mooretown-----	45	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Frost action Depth to saturated zone	1.00 0.50 0.03	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
Blackfoot-----	25	Very limited Depth to saturated zone	1.00	Very limited Frost action Depth to saturated zone	1.00 0.03	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00 0.10
Borah-----	20	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.75	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
135: Mooretown-----	55	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Borco-----	35	Not limited		Not limited		Very limited Cutbanks cave	1.00
136: Morphey-----	80	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone Frost action	1.00 0.94 0.50	Very limited Depth to saturated zone Cutbanks cave Too clayey	1.00 1.00 0.10 0.03
137: Morphey-----	80	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone Frost action	1.00 0.94 0.50	Very limited Depth to saturated zone Cutbanks cave Too clayey	1.00 1.00 0.10 0.03
138: Mountainboy-----	80	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan Frost action	1.00 0.50	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00 1.00
139: Mountainboy-----	80	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan Frost action	1.00 0.50	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00 1.00
140: Nicholia-----	65	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan Frost action	1.00 0.50	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00 1.00
Goosebury-----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
141: Nielsen-----	55	Very limited Slope Depth to hard bedrock Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Shrink-swell Frost action	1.00 1.00 0.50 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
Gaciba-----	35	Very limited Slope Depth to hard bedrock	1.00 1.00	Very limited Depth to hard bedrock Slope Frost action	1.00 1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10
142: Nitchly-----	60	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Skibo-----	15	Very limited Slope Content of large stones	1.00 0.91	Very limited Slope Content of large stones Frost action	1.00 0.91 0.50	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.91
Rock outcrop-----	15	Not rated		Not rated		Not rated	
143: Nurkey-----	45	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Zeebar-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Hutchley-----	15	Very limited Slope Depth to hard bedrock Shrink-swell Content of large stones	1.00 1.00 0.50 0.05	Very limited Depth to hard bedrock Slope Shrink-swell Frost action Content of large stones	1.00 1.00 0.50 0.50 0.05	Very limited Depth to hard bedrock Slope Cutbanks cave Content of large stones	1.00 1.00 0.10 0.05
144: Nurkey-----	50	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00
Dacont-----	30	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Frost action Content of large stones	1.00 0.50 0.01	Very limited Cutbanks cave Slope Content of large stones	1.00 1.00 0.01
145: Nurkey-----	50	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
145: Dacont-----	25	Very limited Slope Content of large stones	1.00 0.72	Very limited Slope Content of large stones Frost action	1.00 0.72 0.50	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.72
146: Nurkey-----	50	Very limited Slope Content of large stones	1.00 0.06	Very limited Slope Frost action Content of large stones	1.00 0.50 0.06	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.06
Dawtonia-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
147: Oxhead-----	90	Not limited		Not limited		Somewhat limited Cutbanks cave	0.10
148: Packham-----	75	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
149: Packham-----	60	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Perreau-----	30	Somewhat limited Slope	0.16	Somewhat limited Frost action Slope	0.50 0.16	Very limited Cutbanks cave Slope	1.00 0.16
150: Packmo-----	65	Somewhat limited Content of large stones	0.01	Somewhat limited Frost action Content of large stones	0.50 0.01	Very limited Cutbanks cave Content of large stones	1.00 0.01
Leadore-----	20	Somewhat limited Content of large stones	0.28	Somewhat limited Content of large stones	0.28	Very limited Cutbanks cave Content of large stones	1.00 0.28
151: Packmo-----	50	Somewhat limited Content of large stones	0.01	Somewhat limited Frost action Content of large stones	0.50 0.01	Very limited Cutbanks cave Content of large stones	1.00 0.01
Whiteknob-----	30	Not limited		Not limited		Very limited Cutbanks cave	1.00
152: Pahsimeroi-----	90	Somewhat limited Content of large stones	0.91	Somewhat limited Content of large stones	0.91	Very limited Cutbanks cave Content of large stones	1.00 0.91

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
153: Pahsimeroi-----	80	Very limited Slope Content of large stones	1.00 0.91	Very limited Slope Content of large stones	1.00 0.91	Very limited Cutbanks cave Slope Content of large stones	1.00 1.00 0.91
154: Pahsimeroi-----	85	Very limited Content of large stones	1.00	Very limited Content of large stones	1.00	Very limited Cutbanks cave Content of large stones	1.00 1.00
155: Paint-----	65	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan Frost action	1.00 0.50	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00
Paint, cold-----	25	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan Frost action	1.00 0.50	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00
156: Paint-----	65	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan Frost action	1.00 0.50	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00
Bluedome-----	25	Somewhat limited Depth to thin cemented pan	0.10	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to thin cemented pan	1.00 0.10
157: Paint-----	75	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan Frost action	1.00 0.50	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00
Whitecloud-----	25	Not limited		Not limited		Very limited Cutbanks cave	1.00
158: Parkay-----	45	Very limited Slope Content of large stones	1.00 0.02	Very limited Slope Frost action Content of large stones	1.00 0.50 0.02	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.02
Donkehill-----	35	Very limited Slope Depth to hard bedrock Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Shrink-swell Frost action	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 0.10

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
159: Parkay-----	70	Somewhat limited Slope	0.04	Somewhat limited Frost action Slope	0.50 0.04	Very limited Cutbanks cave Slope	1.00 0.04
Nurkey-----	15	Somewhat limited Slope	0.04	Somewhat limited Frost action Slope	0.50 0.04	Very limited Cutbanks cave Slope	1.00 0.04
160: Parkay-----	45	Very limited Slope Content of large stones	1.00 0.26	Very limited Slope Frost action Content of large stones	1.00 0.50 0.26	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.26
Nurkey-----	35	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
161: Parkay-----	45	Somewhat limited Slope	0.84	Somewhat limited Slope Frost action	0.84 0.50	Very limited Cutbanks cave Slope	1.00 0.84
Zeebar-----	45	Somewhat limited Slope	0.84	Somewhat limited Slope Frost action	0.84 0.50	Very limited Cutbanks cave Slope	1.00 0.84
162: Parkay-----	55	Very limited Slope Content of large stones	1.00 0.26	Very limited Slope Frost action Content of large stones	1.00 0.50 0.26	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.26
Friedman-----	30	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 1.00 0.12
163: Pattee-----	50	Not limited		Not limited		Somewhat limited Cutbanks cave	0.10
Perreau-----	25	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
164: Pattee-----	45	Not limited		Not limited		Very limited Cutbanks cave	1.00
Perreau-----	30	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
165: Pedoli-----	50	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Dawtonia-----	35	Not limited		Not limited		Very limited Cutbanks cave	1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
166: Pedoli-----	50	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Whiteknob-----	30	Not limited		Not limited		Very limited Cutbanks cave	1.00
167: Penagul-----	45	Very limited Slope Depth to soft bedrock Shrink-swell	1.00 1.00 0.50	Very limited Slope Depth to soft bedrock Shrink-swell	1.00 1.00 0.50	Very limited Depth to soft bedrock Slope Cutbanks cave	1.00 1.00 1.00 0.10
Rosebriar-----	30	Very limited Slope Depth to soft bedrock Shrink-swell	1.00 1.00 0.50	Very limited Slope Depth to soft bedrock Shrink-swell	1.00 1.00 0.50	Very limited Depth to soft bedrock Slope Cutbanks cave	1.00 1.00 1.00 0.10
168: Perreau-----	75	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
169: Perreau-----	75	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
170: Perreau-----	80	Somewhat limited Slope	0.96	Somewhat limited Slope Frost action	0.96 0.50	Very limited Cutbanks cave Slope	1.00 0.96
171: Perreau-----	50	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Dawtonia-----	40	Not limited		Not limited		Very limited Cutbanks cave	1.00
172: Perreau-----	50	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Dawtonia-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
173: Perreau-----	45	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Pattee-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
174: Pits, gravel-----	100	Not rated		Not rated		Not rated	

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
175: Pits, mine-----	100	Not rated		Not rated		Not rated	
176: Povey-----	85	Very limited Slope Content of large stones	1.00 0.02	Very limited Slope Frost action Content of large stones	1.00 0.50 0.02	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.02
177: Povey-----	55	Very limited Slope Content of large stones	1.00 0.12	Very limited Slope Frost action Content of large stones	1.00 0.50 0.12	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.12
Klug-----	40	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Frost action Content of large stones	1.00 0.50 0.01	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.01
178: Reck-----	40	Very limited Shrink-swell Slope Content of large stones	1.00 1.00 0.76	Very limited Shrink-swell Slope Content of large stones Frost action	1.00 1.00 0.76 0.50	Very limited Cutbanks cave Slope Content of large stones Too clayey	1.00 1.00 0.76 0.50
Threedot-----	35	Very limited Depth to saturated zone Slope Shrink-swell Content of large stones	1.00 1.00 0.50 0.10	Very limited Slope Depth to saturated zone Shrink-swell Frost action Content of large stones	1.00 0.78 0.50 0.50 0.10	Very limited Depth to saturated zone Cutbanks cave Slope Too clayey Content of large stones	1.00 1.00 1.00 0.50 0.10
179: Redfish-----	40	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Ponding Frost action	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Ponding Flooding	1.00 1.00 1.00 1.00 0.80
Fezip-----	30	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Frost action Flooding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.80
Lilylake-----	20	Very limited Ponding Flooding Depth to saturated zone Content of large stones	1.00 1.00 1.00 0.05	Very limited Ponding Depth to saturated zone Frost action Flooding Content of large stones	1.00 1.00 1.00 1.00 1.00 0.05	Very limited Ponding Depth to saturated zone Cutbanks cave Flooding Content of large stones	1.00 1.00 1.00 1.00 0.80 0.05

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
180:							
Resoot-----	45	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Frost action	1.00 1.00 0.50	Very limited Cutbanks cave Slope Too clayey	1.00 1.00 0.03
Friedman-----	35	Very limited Slope Shrink-swell Content of large stones	1.00 0.50 0.04	Very limited Slope Shrink-swell Frost action Content of large stones	1.00 0.50 0.50 0.04	Very limited Cutbanks cave Slope Too clayey Content of large stones	1.00 1.00 0.12 0.04
181:							
Resoot-----	55	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 1.00 0.03
Friedman-----	30	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell Frost action	1.00 0.50 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 1.00 0.12
182:							
Ringle-----	90	Not limited		Not limited		Very limited Cutbanks cave	1.00
183:							
Rock outcrop-----	50	Not rated		Not rated		Not rated	
Rubble land-----	50	Not rated		Not rated		Not rated	
184:							
Sanfelipe-----	60	Somewhat limited Slope	0.16	Somewhat limited Frost action Slope	0.50 0.16	Very limited Cutbanks cave Slope	1.00 0.16
Sanfelipe, moist----	30	Somewhat limited Slope	0.16	Somewhat limited Frost action Slope	0.50 0.16	Very limited Cutbanks cave Slope	1.00 0.16
185:							
Shenon-----	85	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
186:							
Shenon-----	85	Somewhat limited Slope	0.16	Somewhat limited Frost action Slope	0.50 0.16	Very limited Cutbanks cave Slope	1.00 0.16
187:							
Shenon-----	45	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Perreau-----	35	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
188:							
Shenon-----	55	Somewhat limited Slope	0.63	Somewhat limited Slope Frost action	0.63 0.50	Very limited Cutbanks cave Slope	1.00 0.63

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
188: Perreau-----	30	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
189: Simeroi-----	85	Not limited		Not limited		Very limited Cutbanks cave	1.00
190: Simeroi-----	95	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Cutbanks cave Slope	1.00 0.16
191: Simeroi, cold-----	70	Not limited		Not limited		Very limited Cutbanks cave	1.00
Simeroi-----	20	Not limited		Not limited		Very limited Cutbanks cave	1.00
192: Simeroi-----	50	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Cutbanks cave Slope	1.00 0.84
Paint-----	25	Very limited Depth to thin cemented pan Slope	1.00 0.84	Somewhat limited Depth to thin cemented pan Slope Frost action	1.00 0.84 0.50	Very limited Depth to thin cemented pan Cutbanks cave Slope	1.00 1.00 0.84
Sanfelipe-----	15	Somewhat limited Slope	0.84	Somewhat limited Slope Frost action	0.84 0.50	Very limited Cutbanks cave Slope	1.00 0.84
193: Simeroi-----	80	Not limited		Not limited		Very limited Cutbanks cave	1.00
Whitecloud-----	15	Not limited		Not limited		Very limited Cutbanks cave	1.00
194: Skibo-----	75	Very limited Slope Content of large stones	1.00 0.93	Very limited Slope Content of large stones Frost action	1.00 0.93 0.50	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.93
195: Smout-----	60	Very limited Flooding Depth to saturated zone	1.00 0.15	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding Depth to dense layer Depth to saturated zone	1.00 0.60 0.50 0.15

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
195: Cowbone-----	25	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Frost action Flooding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.80
196: Smout-----	55	Very limited Flooding Depth to saturated zone	1.00 0.15	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding Depth to dense layer Depth to saturated zone	1.00 0.60 0.50 0.15
Yearian-----	30	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Frost action Flooding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
197: Snowslide-----	90	Somewhat limited Content of large stones	0.07	Somewhat limited Content of large stones	0.07	Very limited Cutbanks cave Content of large stones	1.00 0.07
198: Snowslide-----	85	Not limited		Not limited		Very limited Cutbanks cave	1.00
199: Snowslide-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
200: Snowslide-----	40	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00
Badland-----	20	Not rated		Not rated		Not rated	
Perreau-----	20	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00
201: Snowslide-----	60	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00
Farvant-----	30	Very limited Depth to soft bedrock Slope Content of large stones	1.00 1.00 0.51	Very limited Depth to soft bedrock Slope Content of large stones	1.00 1.00 0.51	Very limited Depth to soft bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 0.51 0.10

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
202: Snowslide, south----	35	Somewhat limited Slope Content of large stones	0.84 0.07	Somewhat limited Slope Content of large stones	0.84 0.07	Very limited Cutbanks cave Slope Content of large stones	1.00 0.84 0.07
Zer-----	30	Very limited Slope Content of large stones	1.00 0.07	Very limited Slope Content of large stones	1.00 0.07	Very limited Cutbanks cave Slope Content of large stones	1.00 1.00 0.07
Snowslide, north----	20	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00
203: Soen-----	80	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Frost action	0.50 0.50	Somewhat limited Cutbanks cave Too clayey	0.10 0.03
204: Soen-----	40	Somewhat limited Slope Shrink-swell	0.63 0.50	Somewhat limited Slope Shrink-swell Frost action	0.63 0.50 0.50	Somewhat limited Slope Cutbanks cave	0.63 0.10
Justesen-----	30	Somewhat limited Slope Shrink-swell	0.63 0.50	Somewhat limited Slope Shrink-swell Frost action	0.63 0.50 0.50	Somewhat limited Slope Cutbanks cave	0.63 0.10
Howcan-----	15	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
205: Sparmo-----	95	Not limited		Not limited		Very limited Cutbanks cave	1.00
206: Sparmo-----	45	Not limited		Not limited		Very limited Cutbanks cave	1.00
Zer-----	40	Somewhat limited Content of large stones	0.17	Somewhat limited Content of large stones	0.17	Very limited Cutbanks cave Content of large stones	1.00 0.17
207: Sparmo-----	45	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Very limited Cutbanks cave Slope	1.00 0.04
Zer-----	45	Somewhat limited Content of large stones Slope	0.17 0.04	Somewhat limited Content of large stones Slope	0.17 0.04	Very limited Cutbanks cave Content of large stones Slope	1.00 0.17 0.04

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
208: Sprabat-----	80	Not limited		Not limited		Very limited Cutbanks cave	1.00
209: Sprabat-----	65	Not limited		Not limited		Very limited Cutbanks cave	1.00
Snowslide-----	25	Somewhat limited Content of large stones	0.07	Somewhat limited Content of large stones	0.07	Very limited Cutbanks cave Content of large stones	1.00 0.07
210: Struggle-----	55	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Cutbanks cave Slope	1.00 0.16
Struggle, very stony	30	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Content of large stones	1.00 0.08	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.08
211: Surrett-----	80	Somewhat limited Depth to thin cemented pan	0.65	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to thin cemented pan	1.00 0.65
212: Surrett-----	45	Somewhat limited Depth to thin cemented pan	0.46	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to thin cemented pan	1.00 0.46
Nurkey-----	45	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
213: Swahlen-----	65	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Packham-----	20	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
214: Swahlen-----	55	Not limited		Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00
Yearian-----	30	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Frost action Flooding	1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
215: Thosand-----	55	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Frost action Flooding Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Ponding Flooding	1.00 1.00 1.00 0.60
Chillybu-----	35	Very limited Ponding Subsidence Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Subsidence Frost action Flooding	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Cutbanks cave Content of organic matter Flooding	1.00 1.00 1.00 1.00 0.80
216: Thosand-----	45	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Frost action Flooding Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Ponding Flooding	1.00 1.00 1.00 0.60
Sancrane-----	35	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Frost action Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Ponding	1.00 1.00 1.00
217: Thosand-----	45	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Frost action Flooding Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Ponding Flooding	1.00 1.00 1.00 0.60
Wiskisprings-----	35	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Flooding Frost action	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 0.80
218: Threedot-----	90	Very limited Depth to saturated zone Slope Shrink-swell	1.00 1.00 0.50	Very limited Slope Depth to saturated zone Shrink-swell Frost action	1.00 0.78 0.50 0.50	Very limited Depth to saturated zone Cutbanks cave Slope Too clayey	1.00 1.00 1.00 0.50
219: Threedot-----	80	Very limited Depth to saturated zone Slope Shrink-swell	1.00 1.00 0.50	Very limited Slope Depth to saturated zone Shrink-swell Frost action	1.00 0.78 0.50 0.50	Very limited Depth to saturated zone Cutbanks cave Slope Too clayey	1.00 1.00 1.00 0.50

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
220: Threedot, dry-----	45	Very limited Slope Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Slope Depth to saturated zone Shrink-swell Frost action	1.00 0.78 0.50 0.50	Very limited Slope Depth to saturated zone Cutbanks cave Too clayey	1.00 1.00 1.00 0.50
Threedot-----	35	Very limited Slope Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Slope Depth to saturated zone Shrink-swell Frost action	1.00 0.78 0.50 0.50	Very limited Slope Depth to saturated zone Cutbanks cave Too clayey	1.00 1.00 1.00 0.50
221: Typic Cryaquepts----	80	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Not rated		Very limited Depth to saturated zone Cutbanks cave	1.00 0.10
222: Ureal-----	40	Very limited Slope Depth to soft bedrock Content of large stones	1.00 1.00 0.42	Very limited Slope Depth to soft bedrock Frost action Content of large stones	1.00 1.00 0.50 0.42	Very limited Depth to soft bedrock Slope Content of large stones Cutbanks cave	1.00 1.00 1.00 0.42 0.10
Zeebar-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Dacont-----	15	Very limited Slope Content of large stones	1.00 0.72	Very limited Slope Content of large stones Frost action	1.00 0.72 0.50	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.72
223: Venum-----	50	Very limited Slope Content of large stones Shrink-swell	1.00 0.67 0.50	Very limited Slope Content of large stones Shrink-swell	1.00 0.67 0.50	Very limited Slope Cutbanks cave Content of large stones Too clayey	1.00 1.00 0.67 0.03
Cronks-----	40	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.87	Very limited Slope Shrink-swell Content of large stones	1.00 1.00 0.87	Very limited Slope Content of large stones Cutbanks cave Too clayey	1.00 0.87 0.10 0.03
224: Venum-----	60	Very limited Slope Shrink-swell Content of large stones	1.00 0.50 0.33	Very limited Slope Shrink-swell Content of large stones	1.00 0.50 0.33	Very limited Slope Cutbanks cave Content of large stones Too clayey	1.00 1.00 0.33 0.03

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
224: Rock outcrop-----	20	Not rated		Not rated		Not rated	
225: Venum-----	55	Very limited Slope Content of large stones Shrink-swell	1.00 0.67 0.50	Very limited Slope Content of large stones Shrink-swell	1.00 0.67 0.50	Very limited Slope Cutbanks cave Content of large stones Too clayey	1.00 1.00 0.67 0.03
Custco-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
226: Whitecloud-----	85	Not limited		Not limited		Very limited Cutbanks cave	1.00
227: Whitecloud-----	80	Not limited		Not limited		Very limited Cutbanks cave	1.00
228: Whitecloud-----	40	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Cutbanks cave Slope	1.00 0.16
Sanfelipe-----	25	Somewhat limited Slope	0.16	Somewhat limited Frost action Slope	0.50 0.16	Very limited Cutbanks cave Slope	1.00 0.16
Fandow-----	20	Very limited Depth to thin cemented pan Slope	1.00 0.16	Somewhat limited Depth to thin cemented pan Slope	1.00 0.16	Very limited Depth to thin cemented pan Cutbanks cave Slope	1.00 1.00 1.00 0.16
229: Whitecloud-----	65	Not limited		Not limited		Very limited Cutbanks cave	1.00
Simeroi-----	25	Not limited		Not limited		Very limited Cutbanks cave	1.00
230: Whiteknob-----	90	Not limited		Not limited		Very limited Cutbanks cave	1.00
231: Whiteknob-----	60	Not limited		Not limited		Very limited Cutbanks cave	1.00
Leadore-----	30	Somewhat limited Content of large stones	0.07	Somewhat limited Content of large stones	0.07	Very limited Cutbanks cave Content of large stones	1.00 0.07
232: Whiteknob-----	60	Not limited		Not limited		Very limited Cutbanks cave	1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
232: Zer-----	20	Somewhat limited Content of large stones	0.20	Somewhat limited Content of large stones	0.20	Very limited Cutbanks cave Content of large stones	1.00 0.20
233: Wiggleton-----	85	Not limited		Not limited		Very limited Cutbanks cave	1.00
234: Wiggleton-----	45	Somewhat limited Content of large stones	0.38	Somewhat limited Content of large stones	0.38	Very limited Cutbanks cave Content of large stones	1.00 0.38
Copperbasin-----	35	Very limited Flooding Depth to saturated zone Content of large stones	1.00 1.00 0.70	Very limited Flooding Content of large stones	1.00 0.70	Very limited Cutbanks cave Depth to saturated zone Content of large stones Flooding	1.00 1.00 0.70 0.60
235: Wimpey-----	35	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Frost action Flooding Shrink-swell Depth to saturated zone	1.00 1.00 1.00 0.03	Very limited Depth to saturated zone Cutbanks cave Flooding Too clayey	1.00 1.00 1.00 0.60 0.03
Zeph-----	30	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Flooding Frost action	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
Ajax-----	20	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Depth to saturated zone Frost action Flooding Shrink-swell	1.00 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 0.08
236: Windcoat-----	90	Very limited Depth to thin cemented pan	1.00	Somewhat limited Depth to thin cemented pan	1.00	Very limited Depth to thin cemented pan Cutbanks cave	1.00 1.00
237: Windcoat-----	45	Very limited Depth to thin cemented pan Slope	1.00 0.84	Somewhat limited Depth to thin cemented pan Slope	1.00 0.84	Very limited Depth to thin cemented pan Cutbanks cave Slope	1.00 1.00 1.00 0.84

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
237: Fandow-----	35	Very limited Depth to thin cemented pan Slope	1.00 0.84	Somewhat limited Depth to thin cemented pan Slope	1.00 0.84	Very limited Depth to thin cemented pan Cutbanks cave Slope	1.00 1.00 0.84
238: Wiskisprings-----	45	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Flooding Frost action	1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.80
Biglost-----	35	Very limited Flooding Depth to saturated zone	1.00 0.82	Very limited Flooding Frost action	1.00 0.50	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 1.00 0.82 0.80
239: Wiskisprings-----	40	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Flooding Frost action	1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.80
Biglost-----	30	Very limited Flooding Depth to saturated zone	1.00 0.82	Very limited Flooding Frost action	1.00 0.50	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 1.00 0.82 0.80
Copperbasin-----	20	Very limited Flooding Content of large stones Depth to saturated zone	1.00 1.00 1.00	Very limited Flooding Content of large stones	1.00 1.00	Very limited Cutbanks cave Content of large stones Depth to saturated zone Flooding	1.00 1.00 1.00 1.00 0.60
240: Xeric Torrifluvents	75	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 1.00 0.60
241: Yearian-----	80	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Frost action Flooding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
242: Yearian-----	80	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Frost action	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00 1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
243: Zeale-----	75	Somewhat limited Slope Content of large stones	0.63 0.05	Somewhat limited Slope Frost action Content of large stones	0.63 0.50 0.05	Very limited Cutbanks cave Slope Content of large stones	1.00 0.63 0.05
Meegero-----	15	Somewhat limited Slope	0.63	Somewhat limited Slope Frost action	0.63 0.50	Very limited Cutbanks cave Slope	1.00 0.63
244: Zeale-----	55	Very limited Slope Content of large stones	1.00 0.05	Very limited Slope Frost action Content of large stones	1.00 0.50 0.05	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.05
Meegero-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
245: Zeale-----	45	Very limited Slope Content of large stones	1.00 0.05	Very limited Slope Frost action Content of large stones	1.00 0.50 0.05	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.05
Zeelnot-----	30	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
246: Zeebar-----	35	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Nielsen-----	30	Very limited Slope Depth to hard bedrock Shrink-swell	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Shrink-swell Frost action	1.00 1.00 1.00 0.50 0.50	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 1.00 0.10
Povey-----	20	Very limited Slope Content of large stones	1.00 0.12	Very limited Slope Frost action Content of large stones	1.00 0.50 0.12	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.12
247: Zeebar-----	55	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Parkay-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
248: Zeebar-----	45	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Resoot-----	35	Very limited Slope Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell Frost action	1.00 1.00 0.50	Very limited Slope Cutbanks cave Too clayey	1.00 1.00 0.03
249: Zeegee-----	45	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Frost action Flooding Shrink-swell	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60
Ajax-----	35	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Depth to saturated zone Frost action Flooding Shrink-swell	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave Too clayey	1.00 0.60 0.10 0.08
250: Zeelnot-----	85	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
251: Zeelnot-----	90	Very limited Slope Shrink-swell Content of large stones	1.00 0.50 0.01	Very limited Slope Shrink-swell Frost action Content of large stones	1.00 0.50 0.50 0.01	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.01
252: Zeelnot-----	40	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Meegernot-----	30	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
Adek-----	15	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Cutbanks cave Slope	1.00 1.00
253: Zer-----	95	Very limited Slope Content of large stones	1.00 0.07	Very limited Slope Content of large stones	1.00 0.07	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.07

Table 8.--Building Site Development--Continued

Map symbol and soil name	Pct. of map unit	Dwellings with basements		Local roads and street		Shallow excavations	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
254: Zer-----	80	Very limited Slope Content of large stones	1.00 0.05	Very limited Slope Content of large stones	1.00 0.05	Very limited Slope Cutbanks cave Content of large stones	1.00 1.00 0.05
255: Zer-----	85	Not limited		Not limited		Very limited Cutbanks cave	1.00
256: Zer-----	85	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Very limited Cutbanks cave Slope	1.00 0.04
257: Zer-----	80	Not limited		Not limited		Very limited Cutbanks cave	1.00
258: Zer-----	80	Very limited Slope	1.00	Very limited Slope Frost action	1.00 0.50	Very limited Slope Cutbanks cave	1.00 1.00
259: Zer-----	75	Somewhat limited Content of large stones	0.07	Somewhat limited Content of large stones	0.07	Very limited Cutbanks cave Content of large stones	1.00 0.07
Snowslide-----	20	Not limited		Not limited		Very limited Cutbanks cave	1.00
260: Zer-----	70	Very limited Slope Content of large stones	1.00 0.07	Very limited Slope Content of large stones	1.00 0.07	Very limited Cutbanks cave Slope Content of large stones	1.00 1.00 0.07
Snowslide-----	15	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00
261: Zer-----	70	Somewhat limited Content of large stones	0.10	Somewhat limited Content of large stones	0.10	Very limited Cutbanks cave Content of large stones	1.00 0.10
Whiteknob-----	20	Not limited		Not limited		Very limited Cutbanks cave	1.00
262: Simeroi-----	85	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00
263: Water-----	100	Not rated		Not rated		Not rated	

Table 9.--Sanitary Facilities

(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		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Alpinepeak-----	75	Very limited Depth to saturated zone Filtering capacity	1.00 1.00	Very limited Seepage Depth to saturated sone Slope	1.00 1.00 0.08	Very limited Too sandy Seepage Gravel content Depth to saturated zone	1.00 1.00 1.00 0.09
2: Aquents-----	75	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 0.11	Very limited Flooding Seepage Depth to saturated sone Content of large stones	1.00 1.00 1.00 0.91	Very limited Depth to saturated zone Seepage Gravel content Content of large stones	1.00 1.00 0.87 0.10
Riverwash-----	20	Not rated		Not rated		Not rated	
3: Arbus-----	85	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.02	Very limited Seepage Carbonate content Gravel content Too sandy	1.00 1.00 1.00 0.50
4: Arco-----	90	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 0.28	Somewhat limited Depth to saturated zone	0.47
5: Badland-----	50	Not rated		Not rated		Not rated	
Millhi-----	35	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Slope Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Hard to compact Slope	1.00 1.00 1.00
6: Bartonflat-----	80	Very limited Filtering capacity Content of large stones	1.00 0.11	Very limited Seepage Content of large stones Slope	1.00 0.03 0.02	Very limited Seepage Gravel content Too sandy Content of large stones	1.00 0.86 0.50 0.26

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
7: Bartonflat-----	75	Very limited Filtering capacity Content of large stones	1.00 0.20	Very limited Seepage Content of large stones Slope	1.00 0.31 0.08	Very limited Seepage Gravel content Too sandy Content of large stones	1.00 0.94 0.50 0.34
8: Bartonhill-----	55	Very limited Filtering capacity Slope	1.00 0.16	Very limited Seepage Slope	1.00 1.00	Very limited Seepage Carbonate content Gravel content Slope	1.00 1.00 0.98 0.16
Whitecloud-----	30	Very limited Filtering capacity Slope	1.00 0.16	Very limited Seepage Slope	1.00 1.00	Very limited Too sandy Seepage Carbonate content Gravel content Slope	1.00 1.00 1.00 1.00 0.16
9: Bayhorse, north----	40	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 1.00
Bayhorse, south----	35	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 1.00
10: Bayhorse-----	45	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 1.00
Dawtonia-----	40	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
11: Bigflat-----	60	Very limited Restricted permeability	1.00	Somewhat limited Slope	0.92	Not limited	
Dacont-----	20	Somewhat limited Restricted permeability Content of large stones	0.50 0.19	Somewhat limited Slope Seepage	0.92 0.50	Somewhat limited Gravel content Content of large stones	0.71 0.68

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
12: Biglost-----	50	Very limited Flooding Filtering capacity Depth to saturated zone	1.00 1.00 0.22	Very limited Flooding Seepage Slope	1.00 1.00 0.08	Very limited Seepage Gravel content Too sandy	1.00 0.62 0.50
Copperbasin-----	30	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone Content of large stones	1.00 1.00 1.00 1.00	Very limited Too sandy Seepage Content of large stones Depth to saturated zone Gravel content	1.00 1.00 1.00 0.44 0.30
13: Bigrant, very poorly drained-----	45	Very limited Flooding Depth to saturated zone Restricted permeability	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	1.00 0.50
Bigrant, poorly drained-----	45	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	1.00
14: Bigrant-----	35	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone	1.00
Thosand-----	30	Very limited Flooding Depth to saturated zone Filtering capacity Ponding Restricted permeability	1.00 1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Gravel content	1.00 1.00 0.59
Dickeypeak-----	20	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 0.50	Very limited Seepage Depth to saturated zone Slope	1.00 1.00 0.08	Somewhat limited Depth to saturated zone	0.44

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
15: Blackfoot-----	75	Somewhat limited Restricted permeability Depth to saturated zone	0.50 0.40	Very limited Seepage	1.00	Somewhat limited Seepage	0.22
16: Blackfoot-----	45	Somewhat limited Restricted permeability Depth to saturated zone	0.50 0.40	Very limited Seepage	1.00	Somewhat limited Seepage	0.22
Borco-----	40	Very limited Filtering capacity	1.00	Very limited Seepage	1.00	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
17: Bluedome-----	80	Very limited Depth to cemented pan Restricted permeability	1.00 0.50	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.32	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.01
18: Bock-----	55	Somewhat limited Restricted permeability	0.50	Somewhat limited Slope Seepage	0.92 0.50	Not limited	
Breitenbach-----	25	Not limited		Very limited Seepage Slope	1.00 0.92	Very limited Gravel content Seepage	1.00 0.52
19: Bock-----	55	Very limited Filtering capacity Restricted permeability	1.00 0.50	Very limited Seepage Slope	1.00 0.02	Not limited	
Bromaglin-----	35	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.02	Very limited Seepage Gravel content Too sandy	1.00 1.00 0.50
20: Bockston-----	75	Somewhat limited Restricted permeability	0.50	Very limited Seepage	1.00	Not limited	
21: Brabas-----	65	Very limited Restricted permeability Filtering capacity Slope	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Too clayey Hard to compact Slope Gravel content	1.00 1.00 1.00 0.06

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
21: Heathcoat-----	25	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
22: Breitenbach-----	75	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.08	Very limited Gravel content Seepage	1.00 0.52
23: Breitenbach-----	75	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.92	Very limited Gravel content Seepage	1.00 0.52
24: Breitenbach-----	75	Very limited Filtering capacity Slope	1.00 0.16	Very limited Slope Seepage	1.00 1.00	Very limited Gravel content Seepage Slope	1.00 0.52 0.16
25: Bunting-----	95	Very limited Filtering capacity	1.00	Very limited Seepage	1.00	Very limited Seepage Gravel content Too sandy	1.00 0.88 0.50
26: Bunting-----	95	Very limited Filtering capacity	1.00	Very limited Seepage	1.00	Very limited Seepage Gravel content Too sandy	1.00 0.94 0.50
27: Bunting-----	70	Very limited Filtering capacity	1.00	Very limited Seepage	1.00	Very limited Seepage Gravel content Too sandy	1.00 0.88 0.50
Moffspring-----	25	Very limited Filtering capacity Depth to saturated zone	1.00 0.84	Very limited Seepage Depth to saturated zone	1.00 0.17	Very limited Seepage Gravel content Too sandy	1.00 0.63 0.50
28: Bursteadt-----	50	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Seepage Too sandy Depth to saturated zone	1.00 0.50 0.47
Tohobit-----	35	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Seepage Depth to saturated zone Too sandy Gravel content	1.00 0.68 0.50 0.21

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
29:							
Busterback-----	60	Very limited Filtering capacity Restricted permeability	1.00 0.50	Very limited Seepage Slope	1.00 0.32	Very limited Too sandy Seepage Gravel content Content of large stones	1.00 1.00 0.91 0.01
Wiggleton-----	20	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Seepage Gravel content Too sandy	1.00 1.00 0.50
30:							
Calcids-----	35	Very limited Slope Content of large stones Depth to bedrock	1.00 0.67 0.22	Very limited Slope Seepage Content of large stones	1.00 1.00 1.00	Very limited Slope Gravel content Content of large stones Seepage	1.00 0.91 0.37 0.22
Badland-----	25	Not rated		Not rated		Not rated	
Xerolls-----	20	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Too clayey Hard to compact Gravel content	1.00 1.00 1.00 0.06
31:							
Calcids-----	45	Very limited Slope Content of large stones Depth to bedrock	1.00 0.83 0.22	Very limited Slope Seepage Content of large stones	1.00 1.00 1.00	Very limited Slope Gravel content Content of large stones Seepage	1.00 0.68 0.51 0.22
Rubble land-----	25	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
32:							
Castlepeak-----	50	Very limited Filtering capacity Content of large stones	1.00 0.93	Very limited Seepage Content of large stones Slope	1.00 1.00 0.32	Very limited Seepage Content of large stones Gravel content Too sandy	1.00 0.99 0.78 0.50
Yankeefork-----	40	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Too sandy Seepage Gravel content Content of large stones	1.00 1.00 0.76 0.15
33:							
Chamberlain-----	80	Very limited Restricted permeability Filtering capacity	1.00 1.00	Very limited Seepage Slope	1.00 0.68	Very limited Seepage Gravel content Too sandy	1.00 1.00 0.50

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
34: Coalkiln-----	70	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 1.00	Very limited Slope Carbonate content Gravel content Seepage	1.00 1.00 0.94 0.52
Zeelnot-----	20	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Carbonate content Gravel content Too clayey Content of large stones	1.00 1.00 0.57 0.50 0.08
35: Copperbasin-----	55	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 0.70	Very limited Flooding Seepage Depth to saturated zone Content of large stones	1.00 1.00 1.00 0.50	Very limited Too sandy Seepage Content of large stones Depth to saturated zone Gravel content	1.00 1.00 0.93 0.44 0.26
Redfish-----	20	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Gravel content	1.00 1.00 1.00 0.97
36: Copperbasin-----	45	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone Content of large stones Slope	1.00 1.00 1.00 1.00 0.08	Very limited Too sandy Seepage Content of large stones Depth to saturated zone Gravel content	1.00 1.00 1.00 0.44 0.30
Redfish-----	35	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 0.02	Very limited Flooding Seepage Depth to saturated zone Slope	1.00 1.00 1.00 0.08	Very limited Depth to saturated zone Too sandy Seepage Gravel content Content of large stones	1.00 1.00 1.00 0.99 0.08
37: Cowbone-----	45	Very limited Flooding Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 0.22

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
37: Tohobit-----	35	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Seepage Depth to saturated zone Too sandy Gravel content	1.00 0.68 0.50 0.21
38: Cronks-----	55	Very limited Restricted permeability Slope Content of large stones	1.00 1.00 0.71	Very limited Slope Content of large stones Seepage	1.00 1.00 0.28	Very limited Slope Too clayey Hard to compact Content of large stones	1.00 1.00 1.00 0.88
Challis-----	35	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
39: Cronks-----	60	Very limited Restricted permeability Content of large stones Slope	1.00 0.87 0.84	Very limited Slope Content of large stones Seepage	1.00 1.00 0.28	Very limited Too clayey Hard to compact Content of large stones Slope	1.00 1.00 0.94 0.84
Venum-----	30	Very limited Restricted permeability Slope Content of large stones	1.00 0.84 0.37	Very limited Slope Content of large stones	1.00 1.00	Somewhat limited Slope Gravel content Content of large stones	0.84 0.60 0.21
40: Cryolls-----	65	Very limited Slope Filtering capacity Content of large stones	1.00 1.00 0.76	Very limited Slope Seepage Content of large stones	1.00 1.00 1.00	Very limited Slope Seepage Content of large stones Too sandy Gravel content	1.00 1.00 0.91 0.50 0.15
Rubble land-----	20	Not rated		Not rated		Not rated	
41: Cryolls-----	50	Very limited Depth to bedrock Slope Filtering capacity Content of large stones	1.00 1.00 1.00 0.95	Very limited Depth to hard bedrock Slope Seepage Content of large stones	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Slope Seepage Content of large stones Too sandy	1.00 1.00 1.00 0.95 0.50
Rubble land-----	20	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
42: Cryepts-----	50	Very limited Slope Filtering capacity Content of large stones	1.00 1.00 0.66	Very limited Slope Seepage Content of large stones	1.00 1.00 1.00	Very limited Slope Seepage Gravel content Content of large stones	1.00 1.00 0.96 0.69
Rubble land-----	20	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
43: Custco-----	80	Very limited Filtering capacity Slope	1.00 0.63	Very limited Slope Seepage	1.00 1.00	Very limited Gravel content Seepage Slope	1.00 1.00 0.63
44: Dacont-----	50	Very limited Slope Content of large stones Restricted permeability	1.00 0.72 0.50	Very limited Slope Seepage Content of large stones	1.00 0.50 0.45	Very limited Slope Content of large stones Gravel content	1.00 0.93 0.69
Custco-----	35	Very limited Slope Filtering capacity	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 1.00 1.00
45: Dacont-----	35	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Content of large stones	1.00 0.99 0.01
Resoot-----	30	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Gravel content Slope Too clayey	1.00 1.00 0.50
Nielsen-----	25	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Gravel content Too clayey	1.00 1.00 0.96 0.50
46: Dacont-----	40	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
Zeebar-----	40	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
47: Darlington-----	55	Very limited Filtering capacity Restricted permeability	1.00 0.50	Very limited Seepage Slope	1.00 0.08	Very limited Seepage Gravel content Too sandy	1.00 1.00 0.50
Lesbut-----	25	Very limited Filtering capacity Content of large stones	1.00 0.09	Very limited Seepage Slope Content of large stones	1.00 0.08 0.01	Very limited Seepage Gravel content Too sandy Content of large stones	1.00 0.73 0.50 0.24
48: Dawtonia-----	80	Somewhat limited Restricted permeability	0.50	Somewhat limited Slope Seepage	0.92 0.50	Very limited Gravel content	1.00
49: Dawtonia-----	75	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Gravel content Slope	1.00 1.00
Dawtonia, cold-----	20	Somewhat limited Restricted permeability	0.50	Very limited Slope Seepage	1.00 0.50	Very limited Gravel content	1.00
50: Dawtonia, cold-----	85	Somewhat limited Restricted permeability	0.50	Somewhat limited Seepage Slope	0.50 0.32	Very limited Gravel content	1.00
Dawtonia-----	15	Somewhat limited Restricted permeability	0.50	Somewhat limited Seepage Slope	0.50 0.32	Very limited Gravel content	1.00
51: Dawtonia-----	45	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
Frailton-----	35	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 1.00	Very limited Depth to soft bedrock Slope Content of large stones	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Slope Content of large stones Seepage Gravel content	1.00 1.00 1.00 0.52 0.01
52: Dawtonia-----	35	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Gravel content Slope	1.00 1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
52: Kehar-----	30	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Hard to compact Slope Gravel content	1.00 1.00 0.20
Soen-----	20	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey Gravel content	1.00 0.50 0.05
53: Dawtonia-----	60	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
Rock outcrop-----	20	Not rated		Not rated		Not rated	
54: Dawtonia-----	50	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
Custco-----	35	Very limited Slope Filtering capacity	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 1.00 1.00
55: Dawtonia-----	50	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
Dacont-----	30	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Content of large stones	1.00 0.98 0.01
56: Derwell-----	65	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Somewhat limited Gravel content Seepage	0.67 0.52
Whiteknob-----	15	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
57: Derwell-----	30	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.08	Somewhat limited Gravel content Seepage	0.67 0.52

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
57: Zer-----	25	Very limited Filtering capacity Content of large stones	1.00 0.07	Very limited Seepage Slope Content of large stones	1.00 0.08 0.01	Very limited Seepage Gravel content Too sandy Content of large stones	1.00 0.76 0.50 0.22
Packmo-----	20	Very limited Filtering capacity Slope Content of large stones	1.00 0.84 0.01	Very limited Seepage Slope Content of large stones	1.00 1.00 0.01	Somewhat limited Slope Gravel content Content of large stones Seepage	0.84 0.80 0.26 0.22
58: Dickeypeak-----	60	Very limited Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 0.50	Very limited Seepage Depth to saturated zone Slope	1.00 1.00 0.32	Somewhat limited Depth to saturated zone	0.44
Bigrant-----	25	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Slope	1.00 1.00 0.32	Very limited Depth to saturated zone	1.00
59: Donkehill-----	85	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 1.00 0.52
60: Donkehill-----	45	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Gravel content Slope Seepage	1.00 1.00 1.00 0.52
Zeebar-----	30	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Too clayey	1.00 1.00 0.50
61: Donkehill-----	40	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 1.00 0.52
Zeebar-----	35	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
62: Dumps, mine-----	100	Not rated		Not rated		Not rated	
63: Escarlo-----	45	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Slope Carbonate content Too clayey Gravel content	1.00 1.00 0.50 0.16
Heathcoat-----	40	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
64: Escarlo-----	55	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Slope Carbonate content Too clayey Gravel content	1.00 1.00 0.50 0.19
Heathcoat-----	40	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
65: Ezbin-----	40	Very limited Slope Restricted permeability Content of large stones	1.00 1.00 0.67	Very limited Slope Content of large stones Seepage	1.00 1.00 0.50	Very limited Slope Content of large stones Gravel content	1.00 1.00 0.01
Zeebar-----	30	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Too clayey	1.00 1.00 0.50
Nielsen-----	15	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Gravel content Too clayey	1.00 1.00 0.96 0.50
66: Fandow-----	85	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.32	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 1.00
67: Fandow-----	50	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.32	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
67: Arbus-----	45	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Seepage Carbonate content Gravel content Too sandy	1.00 1.00 1.00 0.50
68: Farvant-----	35	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.21	Very limited Depth to soft bedrock Slope Content of large stones	1.00 1.00 1.00 0.18	Very limited Depth to bedrock Slope Seepage Content of large stones Gravel content	1.00 1.00 0.52 0.21 0.08
Badland-----	25	Not rated		Not rated		Not rated	
Gradco-----	20	Very limited Depth to bedrock Slope Content of large stones Restricted permeability	1.00 1.00 0.78 0.50	Very limited Depth to soft bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Content of large stones Gravel content	1.00 1.00 0.78 0.08
69: Farvant-----	45	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 0.69 0.52
Sactus-----	30	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to bedrock Gravel content Slope	1.00 1.00 1.00
Dawtonia-----	15	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
70: Fezip-----	35	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Gravel content Too sandy	1.00 1.00 1.00 0.62 0.50
Lemroi-----	25	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Gravel content Too sandy	1.00 1.00 1.00 1.00 0.50

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
70: Redfish-----	15	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 0.02	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Gravel content Content of large stones	1.00 1.00 1.00 1.00 0.95 0.08
71: Fezip-----	40	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Gravel content Too sandy	1.00 1.00 1.00 0.62 0.50
Redfish-----	25	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 0.02	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Gravel content Content of large stones	1.00 1.00 1.00 1.00 0.95 0.08
Copperbasin-----	15	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 0.87	Very limited Flooding Seepage Depth to saturated zone Content of large stones	1.00 1.00 1.00 0.94	Very limited Too sandy Seepage Content of large stones Gravel content Depth to saturated zone	1.00 1.00 1.00 0.98 0.47 0.44
72: Firebox-----	85	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.92	Very limited Seepage Gravel content Too sandy	1.00 1.00 0.50
73: Firebox-----	95	Very limited Filtering capacity Content of large stones	1.00 1.00	Very limited Content of large stones Seepage Slope	1.00 1.00 0.68	Very limited Seepage Content of large stones Too sandy	1.00 1.00 1.00 0.50
74: Frailton-----	50	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.31	Very limited Depth to soft bedrock Slope Seepage Content of large stones	1.00 1.00 1.00 1.00 0.47	Very limited Depth to bedrock Slope Seepage Gravel content Content of large stones	1.00 1.00 0.52 0.35 0.31
Dawtonia-----	35	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
75: Frailton-----	50	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 1.00
Gradco-----	25	Very limited Depth to bedrock Slope Content of large stones Restricted permeability	1.00 1.00 0.72 0.50	Very limited Depth to soft bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Content of large stones Gravel content	1.00 1.00 0.72 0.15
76: Friedman-----	40	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Too clayey Gravel content Slope	1.00 1.00 1.00
Reck-----	25	Very limited Restricted permeability Slope Content of large stones	1.00 1.00 1.00 0.12	Very limited Slope Content of large stones	1.00 0.50	Very limited Too clayey Slope Gravel content Content of large stones	1.00 1.00 0.43 0.18
Goldhill-----	20	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope Gravel content	1.00 1.00 1.00 0.19
77: Gaciba-----	45	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 1.00
Cronks-----	30	Very limited Restricted permeability Slope Content of large stones	1.00 1.00 1.00 0.87	Very limited Slope Content of large stones Seepage	1.00 1.00 1.00 0.28	Very limited Slope Too clayey Hard to compact Content of large stones	1.00 1.00 1.00 0.94
78: Gaciba-----	70	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.99
Dacont-----	15	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Content of large stones	1.00 0.98 0.01

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
79: Gany-----	80	Very limited Slope	1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage Content of large stones	1.00 1.00 0.22 0.01
80: Geemore-----	90	Very limited Restricted permeability	1.00	Somewhat limited Slope Seepage	0.68 0.50	Very limited Gravel content Too clayey	1.00 0.50
81: Germer-----	55	Not limited		Very limited Seepage Slope	1.00 0.92	Very limited Gravel content Seepage	1.00 0.52
Dawtonia-----	25	Somewhat limited Restricted permeability	0.50	Somewhat limited Slope Seepage	0.92 0.50	Very limited Gravel content	1.00
82: Goldaho-----	65	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Hard to compact Slope	1.00 1.00
Zer-----	25	Very limited Filtering capacity Slope Content of large stones	1.00 1.00 1.00 0.18	Very limited Seepage Slope Content of large stones	1.00 1.00 0.40	Very limited Seepage Slope Gravel content Too sandy Content of large stones	1.00 1.00 0.79 0.50 0.33
83: Goldhill-----	50	Very limited Restricted permeabilty Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope Gravel content	1.00 1.00 1.00 0.37
Zeebar-----	30	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Too clayey	1.00 1.00 0.50
84: Goosebury-----	80	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Very limited Gravel content Seepage	1.00 0.52
85: Goosebury-----	90	Somewhat limited Slope	0.84	Very limited Seepage Slope	1.00 1.00	Very limited Gravel content Slope Seepage	1.00 0.84 0.52

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
86: Goosebury-----	60	Somewhat limited Slope	0.84	Very limited Seepage Slope	1.00 1.00	Very limited Gravel content Slope Seepage	1.00 0.84 0.52
Windcoat-----	25	Very limited Depth to cemented pan Slope	1.00 0.84	Very limited Depth to cemented pan Seepage Slope	1.00 1.00	Very limited Depth to cemented pan Carbonate content Slope Gravel content	1.00 1.00 0.84 0.41
87: Gradco-----	45	Very limited Depth to bedrock Slope Content of large stones Restricted permeability	1.00 1.00 0.92 0.50	Very limited Depth to soft bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Content of large stones Gravel content	1.00 1.00 0.92 0.10
Farvant-----	35	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.27	Very limited Depth to soft bedrock Slope Seepage Content of large stones	1.00 1.00 1.00 1.00 0.41	Very limited Depth to bedrock Slope Seepage Content of large stones Gravel content	1.00 1.00 0.52 0.27 0.11
88: Gradco-----	50	Very limited Depth to bedrock Slope Content of large stones Restricted permeability	1.00 1.00 0.92 0.50	Very limited Depth to soft bedrock Slope Content of large stones Seepage	1.00 1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Content of large stones Gravel content	1.00 1.00 0.92 0.10
Farvant-----	35	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.27	Very limited Depth to soft bedrock Slope Seepage Content of large stones	1.00 1.00 1.00 1.00 0.41	Very limited Depth to bedrock Slope Seepage Content of large stones Gravel content	1.00 1.00 0.52 0.27 0.11
89: Hagenbarth-----	65	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope	1.00
Brabas-----	25	Very limited Restricted permeability Slope Filtering capacity	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Too clayey Hard to compact Slope Gravel content	1.00 1.00 1.00 0.06

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
90: Heathcoat-----	75	Very limited Restricted permeability Slope	1.00 0.63	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 0.63
91: Heathcoat-----	50	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
Goldhill-----	30	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.28	Very limited Too clayey Hard to compact Slope	1.00 1.00 1.00
92: Heathcoat-----	45	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey Gravel content	1.00 0.50 0.06
Soen-----	30	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
93: Howcan-----	35	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 0.76
Hagenbarth-----	30	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope	1.00
Hutchley-----	20	Very limited Depth to bedrock Slope Content of large stones	1.00 0.84 0.01	Very limited Depth to hard bedrock Slope Content of large stones	1.00 1.00 1.00 0.02	Very limited Depth to bedrock Slope Gravel content Too clayey Content of large stones	1.00 0.84 0.56 0.50 0.01
94: Hutchley-----	40	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.07	Very limited Depth to hard bedrock Slope Content of large stones	1.00 1.00 1.00 0.07	Very limited Depth to bedrock Slope Gravel content Too clayey Content of large stones	1.00 1.00 0.57 0.50 0.07
Nurkey-----	35	Very limited Restricted permeability Slope Content of large stones	1.00 1.00 0.06	Very limited Slope Seepage Content of large stones	1.00 1.00 0.29	Very limited Slope Gravel content Content of large stones	1.00 0.89 0.08

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
95: Ike-----	40	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage Content of large stones	1.00 1.00 1.00 0.50 0.01	Very limited Depth to bedrock Slope Carbonate content Gravel content	1.00 1.00 1.00 0.83
Rock outcrop-----	20	Not rated		Not rated		Not rated	
Jimbee-----	15	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Carbonate content Gravel content	1.00 1.00 1.00 0.97
96: Inferno-----	40	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey Gravel content	1.00 1.00 0.41
Grouseville-----	35	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Slope Too clayey	1.00 0.50
97: Jimbee-----	45	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Carbonate content Gravel content	1.00 1.00 1.00 0.97
Rock outcrop-----	20	Not rated		Not rated		Not rated	
Ike-----	15	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage Content of large stones	1.00 1.00 1.00 0.50 0.01	Very limited Depth to bedrock Slope Carbonate content Gravel content	1.00 1.00 1.00 0.83
98: Justesen-----	50	Very limited Restricted permeability Slope	1.00 0.04	Very limited Slope Seepage	1.00 0.28	Somewhat limited Too clayey Slope	0.50 0.04
Drage-----	35	Very limited Restricted permeability Slope	1.00 0.04	Very limited Slope Seepage	1.00 0.50	Very limited Gravel content Too clayey Slope	1.00 0.50 0.04
99: Kadletz-----	90	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Seepage Gravel content Too sandy	1.00 1.00 0.50

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
100: Kehar-----	80	Very limited Restricted permeability Slope	1.00 0.96	Very limited Slope	1.00	Somewhat limited Slope Gravel content	0.96 0.32
101: Kehar-----	55	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.28	Very limited Slope Hard to compact Gravel content	1.00 1.00 0.27
Kehar, eroded-----	20	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Slope Hard to compact Gravel content	1.00 1.00 0.01
102: Ketchum-----	80	Very limited Slope	1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 1.00 0.52
103: Ketchum, cold-----	70	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Seepage Content of large stones	1.00 1.00 0.25	Very limited Slope Gravel content Seepage Content of large stones	1.00 0.84 0.52 0.01
Ketchum-----	15	Very limited Slope Content of large stones	1.00 0.04	Very limited Slope Seepage Content of large stones	1.00 1.00 0.27	Very limited Slope Gravel content Seepage Content of large stones	1.00 0.94 0.52 0.08
104: Klug-----	85	Somewhat limited Slope	0.84	Very limited Slope Seepage	1.00 1.00	Very limited Gravel content Slope Seepage	1.00 0.84 0.22
105: Klug-----	30	Very limited Slope	1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage Content of large stones	1.00 1.00 0.22 0.01
Gaciba-----	25	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 0.50	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.97

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
105: Dacont-----	20	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Content of large stones	1.00 0.98 0.01
106: Klug-----	60	Very limited Slope	1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage Content of large stones	1.00 1.00 0.22 0.01
Povey-----	25	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.01	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Content of large stones	1.00 0.66 0.12
107: Klug-----	55	Very limited Slope Content of large stones	1.00 0.03	Very limited Slope Seepage Content of large stones	1.00 1.00 0.01	Very limited Slope Gravel content Seepage Content of large stones	1.00 1.00 0.22 0.11
Povey-----	25	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.01	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Content of large stones	1.00 0.66 0.12
108: Klug-----	50	Very limited Slope Content of large stones	1.00 0.04	Very limited Slope Seepage Content of large stones	1.00 1.00 0.01	Very limited Slope Gravel content Seepage Content of large stones	1.00 0.99 0.22 0.11
Zeebar-----	30	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Too clayey	1.00 1.00 0.50
109: Lacrol-----	65	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Slope Depth to saturated zone	1.00 1.00	Very limited Slope Depth to saturated zone Too clayey Hard to compact	1.00 1.00 1.00 1.00
Friedman-----	20	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Too clayey	1.00 1.00 0.50

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
110: Lag-----	80	Very limited Slope Content of large stones	1.00 0.16	Very limited Slope Seepage Content of large stones	1.00 1.00 0.97	Very limited Slope Gravel content Seepage Content of large stones	1.00 0.67 0.52 0.11
111: Lag-----	75	Very limited Slope Content of large stones	1.00 0.40	Very limited Slope Seepage Content of large stones	1.00 1.00 1.00	Very limited Slope Gravel content Seepage Content of large stones	1.00 0.72 0.52 0.22
112: Lag-----	70	Very limited Slope Content of large stones	1.00 0.16	Very limited Slope Seepage Content of large stones	1.00 1.00 0.97	Very limited Slope Gravel content Seepage Content of large stones	1.00 0.67 0.52 0.11
Klug-----	15	Very limited Slope	1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage Content of large stones	1.00 1.00 0.22 0.01
113: Langer-----	75	Very limited Filtering capacity Slope	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Seepage Gravel content Slope Too sandy	1.00 1.00 1.00 0.50
114: Leadore-----	90	Very limited Filtering capacity Content of large stones	1.00 0.28	Very limited Seepage Slope	1.00 0.32	Very limited Seepage Content of large stones Too sandy Gravel content	1.00 0.72 0.50 0.16
115: Leatherman-----	65	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.32	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.98
Arbus-----	35	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Seepage Carbonate content Gravel content Too sandy	1.00 1.00 1.00 0.50

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
116: Leatherman-----	45	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.68	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.98
Bluedome-----	30	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.68	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.05
117: Lemco-----	65	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Too clayey Gravel content	1.00 1.00 0.58
Friedman-----	25	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Too clayey Gravel content	1.00 1.00 1.00
118: Lemhi-----	45	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Gravel content	1.00 1.00 1.00 1.00 0.83
Copperbasin-----	20	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone Content of large stones	1.00 1.00 1.00 1.00	Very limited Too sandy Seepage Content of large stones Depth to saturated zone Gravel content	1.00 1.00 1.00 0.44 0.12
Lilylake-----	15	Very limited Flooding Ponding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 1.00 0.29	Very limited Ponding Flooding Seepage Depth to saturated zone Content of organic matter	1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Too sandy Seepage Content of large stones	1.00 1.00 1.00 1.00 0.57
119: Lemroi-----	45	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Gravel content Too sandy	1.00 1.00 1.00 1.00 0.50

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
119: Leecreek-----	40	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Gravel content Too sandy	1.00 1.00 1.00 0.50
120: Lemroi-----	40	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Gravel content Too sandy	1.00 1.00 1.00 0.50
Leecreek-----	30	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Gravel content Too sandy	1.00 1.00 1.00 0.50
Grandjean-----	20	Very limited Flooding Ponding Depth to saturated zone Filtering capacity Subsidence	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Flooding Seepage Depth to saturated zone Content of organic matter	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Too sandy Seepage Gravel content	1.00 1.00 1.00 1.00 0.18
121: Lesbut-----	85	Very limited Filtering capacity Content of large stones	1.00 0.09	Very limited Seepage Slope Content of large stones	1.00 0.08 0.01	Very limited Seepage Gravel content Too sandy Content of large stones	1.00 0.73 0.50 0.24
122: Lilylake-----	50	Very limited Flooding Ponding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 1.00 0.05	Very limited Ponding Flooding Seepage Depth to saturated zone Content of organic matter	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Too sandy Seepage Gravel content	1.00 1.00 1.00 1.00 0.32
Grandjean-----	25	Very limited Flooding Ponding Depth to saturated zone Filtering capacity Subsidence	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Flooding Seepage Depth to saturated zone Content of organic matter	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Too sandy Seepage Gravel content	1.00 1.00 1.00 1.00 0.18

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
123: Mahaffey-----	40	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Seepage Content of large stones Too sandy Depth to saturated zone	1.00 0.50 0.50 0.25
Copperbasin-----	20	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 0.92	Very limited Flooding Seepage Depth to saturated zone Content of large stones	1.00 1.00 1.00 1.00	Very limited Too sandy Seepage Content of large stones Depth to saturated zone Gravel content	1.00 1.00 0.99 0.44 0.24
Wiskisprings-----	20	Very limited Flooding Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone	1.00
124: Meegernot-----	75	Very limited Slope Restricted permeability Filtering capacity	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content	1.00 1.00
125: Meegero-----	60	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 1.00	Very limited Slope Carbonate content Seepage Content of large stones Gravel content	1.00 1.00 0.22 0.19 0.15
Zeale-----	25	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.08	Very limited Slope Seepage Content of large stones	1.00 0.50 0.14	Very limited Slope Carbonate content Gravel content Content of large stones	1.00 1.00 0.73 0.16
126: Millhi-----	90	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Slope	1.00 0.08	Very limited Depth to saturated zone Hard to compact	1.00 1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
127: Millhi-----	85	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 0.16	Very limited Depth to saturated zone Slope	1.00 1.00	Very limited Depth to saturated zone Hard to compact Slope	1.00 1.00 0.16
128: Millhi-----	45	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Slope	1.00	Very limited Depth to saturated zone Hard to compact Slope	1.00 1.00 1.00
Millhi, eroded-----	35	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Slope Depth to saturated zone	1.00 1.00	Very limited Slope Depth to saturated zone Hard to compact	1.00 1.00 1.00
129: Millhi-----	50	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Depth to saturated zone Slope	1.00 1.00	Very limited Depth to saturated zone Hard to compact Slope	1.00 1.00 1.00
Badland-----	30	Not rated		Not rated		Not rated	
130: Millhi-----	65	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Slope Depth to saturated zone	1.00 1.00	Very limited Slope Depth to saturated zone Hard to compact	1.00 1.00 1.00
Lacrol-----	25	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Slope Depth to saturated zone	1.00 1.00	Very limited Slope Depth to saturated zone Too clayey Hard to compact	1.00 1.00 1.00 1.00
131: Misfire-----	35	Very limited Slope Content of large stones	1.00 0.02	Very limited Slope Seepage	1.00 1.00	Very limited Slope Seepage Gravel content Content of large stones	1.00 0.52 0.44 0.12
Pattee-----	25	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope	1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
131: Dawtonia-----	20	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
132: Mitring-----	50	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 1.00 1.00	Very limited Depth to bedrock Slope Gravel content Seepage	1.00 1.00 1.00 0.52
Holinrock-----	35	Very limited Depth to bedrock Slope Restricted permeability	1.00 1.00 0.50	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 1.00
133: Mogg-----	55	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 1.00
Dawtonia-----	35	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
134: Mooretown-----	45	Very limited Flooding Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Somewhat limited Depth to saturated zone	0.68
Blackfoot-----	25	Very limited Depth to saturated zone Restricted permeability	1.00 0.50	Very limited Depth to saturated zone Seepage	1.00 0.50	Somewhat limited Depth to saturated zone	0.68
Borah-----	20	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Seepage Gravel content Depth to saturated zone Too sandy	1.00 1.00 1.00 0.50
135: Mooretown-----	55	Very limited Filtering capacity Restricted permeability	1.00 0.50	Very limited Seepage	1.00	Somewhat limited Gravel content	0.16

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
135: Borco-----	35	Very limited Filtering capacity	1.00	Very limited Seepage	1.00	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
136: Morphey-----	80	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Slope	1.00 0.08	Very limited Depth to saturated zone Hard to compact Too clayey	1.00 1.00 0.50
137: Morphey-----	80	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Slope	1.00 0.92	Very limited Depth to saturated zone Hard to compact Too clayey	1.00 1.00 0.50
138: Mountainboy-----	80	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.68	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.97
139: Mountainboy-----	80	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.32	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.97
140: Nicholia-----	65	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.68	Very limited Depth to cemented pan Carbonate content	1.00 1.00
Goosebury-----	20	Very limited Filtering capacity Slope	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Gravel content Slope Seepage	1.00 1.00 0.52
141: Nielsen-----	55	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Gravel content Too clayey	1.00 1.00 0.96 0.50
Gaciba-----	35	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 0.50	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.97

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
142:							
Nitchly-----	60	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Carbonate content	1.00 1.00 1.00
Skibo-----	15	Very limited Slope Content of large stones	1.00 0.91	Very limited Slope Content of large stones Seepage	1.00 1.00 1.00	Very limited Slope Carbonate content Content of large stones Gravel content Seepage	1.00 1.00 0.82 0.75 0.22
Rock outcrop-----	15	Not rated		Not rated		Not rated	
143:							
Nurkey-----	45	Very limited Slope Restricted permeability	1.00 0.72	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Too clayey	1.00 0.83 0.50
Zeebar-----	30	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Too clayey	1.00 1.00 0.50
Hutchley-----	15	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.05	Very limited Depth to hard bedrock Slope Content of large stones	1.00 1.00 1.00 0.38	Very limited Depth to bedrock Slope Too clayey Gravel content Content of large stones	1.00 1.00 0.50 0.33 0.05
144:							
Nurkey-----	50	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 0.50
Dacont-----	30	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.01	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Content of large stones	1.00 0.81 0.41
145:							
Nurkey-----	50	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 1.00 0.52
Dacont-----	25	Very limited Slope Content of large stones Restricted permeability	1.00 0.72 0.50	Very limited Slope Seepage Content of large stones	1.00 0.50 0.45	Very limited Slope Content of large stones Gravel content	1.00 0.93 0.69

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
146: Nurkey-----	50	Very limited Slope Restricted permeability Content of large stones	1.00 1.00 0.06	Very limited Slope Seepage Content of large stones	1.00 1.00 0.29	Very limited Slope Gravel content Content of large stones	1.00 0.89 0.08
Dawtonia-----	35	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
147: Oxhead-----	90	Somewhat limited Restricted permeability	0.50	Somewhat limited Slope Seepage	0.68 0.50	Not limited	
148: Packham-----	75	Very limited Filtering capacity Restricted permeability	1.00 0.50	Very limited Seepage Slope	1.00 0.08	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
149: Packham-----	60	Very limited Filtering capacity Restricted permeability	1.00 0.50	Very limited Seepage Slope	1.00 1.00	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
Perreau-----	30	Somewhat limited Restricted permeability Slope	0.50 0.16	Very limited Seepage Slope	1.00 1.00	Somewhat limited Seepage Gravel content Slope	0.52 0.34 0.16
150: Packmo-----	65	Very limited Filtering capacity Content of large stones	1.00 0.01	Very limited Seepage Slope Content of large stones	1.00 0.08 0.01	Somewhat limited Gravel content Content of large stones Seepage	0.80 0.26 0.22
Leadore-----	20	Very limited Filtering capacity Content of large stones	1.00 0.28	Very limited Seepage Slope	1.00 0.08	Very limited Seepage Content of large stones Too sandy Gravel content	1.00 0.72 0.50 0.16
151: Packmo-----	50	Very limited Filtering capacity Content of large stones	1.00 0.01	Very limited Seepage Slope Content of large stones	1.00 0.08 0.01	Somewhat limited Gravel content Content of large stones Seepage	0.80 0.26 0.22
Whiteknob-----	30	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.08	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
152: Pahsimeroi-----	90	Very limited Filtering capacity Content of large stones	1.00 0.91	Very limited Seepage Slope	1.00 0.32	Very limited Too sandy Seepage Content of large stones	1.00 1.00 1.00
153: Pahsimeroi-----	80	Very limited Filtering capacity Slope Content of large stones	1.00 1.00 0.91	Very limited Slope Seepage	1.00 1.00	Very limited Too sandy Seepage Slope Content of large stones	1.00 1.00 1.00 1.00
154: Pahsimeroi-----	85	Very limited Filtering capacity Content of large stones	1.00 1.00	Very limited Seepage Content of large stones Slope	1.00 1.00 0.92	Very limited Too sandy Seepage Content of large stones	1.00 1.00 1.00
155: Paint-----	65	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.68	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.45
Paint, cold-----	25	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.68	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.29
156: Paint-----	65	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.92	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.29
Bluedome-----	25	Very limited Depth to cemented pan Restricted permeability	1.00 0.50	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.92	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.01
157: Paint-----	75	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.68	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.45
Whitecloud-----	25	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Very limited Too sandy Seepage Carbonate content Gravel content	1.00 1.00 1.00 1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
158: Parkay-----	45	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.02	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Too clayey Content of large stones	1.00 0.92 0.50 0.01
Donkehill-----	35	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope Seepage	1.00 1.00 1.00 0.50	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 1.00
159: Parkay-----	70	Somewhat limited Restricted permeability Slope	0.50 0.04	Very limited Slope Seepage Content of large stones	1.00 0.50 0.01	Somewhat limited Slope Gravel content Content of large stones	0.04 0.01 0.01
Nurkey-----	15	Very limited Restricted permeability Slope	1.00 0.04	Very limited Seepage Slope	1.00 1.00	Very limited Gravel content Seepage Slope	1.00 0.52 0.04
160: Parkay-----	45	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.26	Very limited Slope Content of large stones Seepage	1.00 0.91 0.50	Very limited Slope Gravel content Too clayey	1.00 0.51 0.50
Nurkey-----	35	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 1.00 0.52
161: Parkay-----	45	Somewhat limited Slope Restricted permeability	0.84 0.50	Very limited Slope Content of large stones Seepage	1.00 0.65 0.50	Somewhat limited Gravel content Slope	1.00 0.84
Zeebar-----	45	Very limited Restricted permeability Slope	1.00 0.84	Very limited Slope Seepage	1.00 0.50	Very limited Gravel content Slope	1.00 0.84
162: Parkay-----	55	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.26	Very limited Slope Content of large stones Seepage	1.00 0.91 0.50	Very limited Slope Gravel content	1.00 0.51

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
162: Friedman-----	30	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Too clayey Gravel content	1.00 1.00 1.00
163: Pattee-----	50	Somewhat limited Restricted permeability	0.50	Somewhat limited Seepage Slope	0.50 0.08	Not limited	
Perreau-----	25	Somewhat limited Restricted permeability	0.50	Very limited Seepage Slope	1.00 0.08	Somewhat limited Gravel content Seepage	0.85 0.52
164: Pattee-----	45	Somewhat limited Restricted permeability	0.50	Somewhat limited Slope Seepage	0.92 0.50	Not limited	
Perreau-----	30	Somewhat limited Restricted permeability	0.50	Very limited Seepage Slope	1.00 0.92	Somewhat limited Gravel content Seepage	0.85 0.52
165: Pedoli-----	50	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.08	Very limited Seepage Gravel content Too sandy	1.00 1.00 0.50
Dawtonia-----	35	Somewhat limited Restricted permeability	0.50	Somewhat limited Seepage Slope	0.50 0.08	Very limited Gravel content	1.00
166: Pedoli-----	50	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Seepage Gravel content Too sandy	1.00 1.00 0.50
Whitknob-----	30	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
167: Penagul-----	45	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 1.00
Rosebriar-----	30	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 1.00 0.50	Very limited Depth to bedrock Slope Gravel content	1.00 1.00 0.97
168: Perreau-----	75	Somewhat limited Restricted permeability	0.50	Very limited Seepage Slope	1.00 0.08	Somewhat limited Gravel content Seepage	0.85 0.52

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
169: Perreau-----	75	Somewhat limited Restricted permeability	0.50	Very limited Seepage Slope	1.00 0.92	Somewhat limited Gravel content Seepage	0.85 0.52
170: Perreau-----	80	Somewhat limited Slope	0.96	Very limited Slope Seepage	1.00 1.00	Somewhat limited Gravel content Slope Seepage	1.00 0.96 0.52
171: Perreau-----	50	Somewhat limited Restricted permeability	0.50	Very limited Seepage Slope	1.00 0.92	Somewhat limited Gravel content Seepage	0.85 0.52
Dawtonia-----	40	Somewhat limited Restricted permeability	0.50	Somewhat limited Slope Seepage	0.92 0.50	Very limited Gravel content	1.00
172: Perreau-----	50	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 0.85 0.52
Dawtonia-----	40	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
173: Perreau-----	45	Very limited Slope	1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 1.00 0.52
Pattee-----	30	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope	1.00
174: Pits, gravel-----	100	Not rated		Not rated		Not rated	
175: Pits, mine-----	100	Not rated		Not rated		Not rated	
176: Povey-----	85	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.02	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Content of large stones	1.00 0.77 0.17

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
177: Povey-----	55	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.12	Very limited Slope Seepage Content of large stones	1.00 0.50 0.02	Very limited Slope Gravel content Content of large stones	1.00 0.69 0.29
Klug-----	40	Very limited Slope Content of large stones	1.00 0.01	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage Content of large stones	1.00 1.00 0.22 0.07
178: Reck-----	40	Very limited Restricted permeability Slope Content of large stones	1.00 1.00 1.00 0.76	Very limited Seepage Slope Content of large stones	1.00 1.00 0.96	Very limited Too clayey Slope Content of large stones Gravel content	1.00 1.00 0.54 0.11
Threedot-----	35	Very limited Restricted permeability Depth to saturated zone Slope Content of large stones	1.00 1.00 1.00 1.00 0.10	Very limited Depth to saturated zone Slope Content of large stones	1.00 1.00 0.62	Very limited Too clayey Slope Depth to saturated zone Gravel content	1.00 1.00 1.00 0.92
179: Redfish-----	40	Very limited Flooding Depth to saturated zone Filtering capacity Ponding	1.00 1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Gravel content Ponding	1.00 1.00 1.00 1.00 1.00
Fezip-----	30	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Gravel content Too sandy	1.00 1.00 1.00 0.62 0.50
Lilylake-----	20	Very limited Flooding Ponding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 1.00 1.00 0.05	Very limited Ponding Flooding Seepage Depth to saturated zone Content of organic matter	1.00 1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Too sandy Seepage Gravel content	1.00 1.00 1.00 1.00 1.00 0.32

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
180:							
Resoot-----	45	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Gravel content Slope Too clayey	1.00 1.00 0.50
Friedman-----	35	Very limited Restricted permeability Slope Content of large stones	1.00 1.00 0.04	Very limited Slope	1.00	Very limited Too clayey Hard to compact Slope Content of large stones Gravel content	1.00 1.00 1.00 0.80 0.16
181:							
Resoot-----	55	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Slope Gravel content Too clayey	1.00 1.00 0.50
Friedman-----	30	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Too clayey Gravel content	1.00 1.00 1.00
182:							
Ringle-----	90	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Very limited Seepage Carbonate content Gravel content Too sandy	1.00 1.00 1.00 0.50
183:							
Rock outcrop-----	50	Not rated		Not rated		Not rated	
Rubble land-----	50	Not rated		Not rated		Not rated	
184:							
Sanfelipe-----	60	Very limited Filtering capacity Restricted permeability Slope	1.00 0.50 0.16	Very limited Slope Seepage	1.00 1.00	Very limited Gravel content Carbonate content Slope	1.00 1.00 0.16
Sanfelipe, moist----	30	Very limited Filtering capacity Restricted permeability Slope	1.00 0.50 0.16	Very limited Slope Seepage	1.00 1.00	Very limited Carbonate content Gravel content Seepage Too sandy Slope	1.00 1.00 1.00 0.50 0.16
185:							
Shenon-----	85	Very limited Restricted permeability	1.00	Somewhat limited Seepage Slope	0.50 0.08	Not limited	
186:							
Shenon-----	85	Very limited Restricted permeability Slope	1.00 0.16	Very limited Slope Seepage	1.00 0.50	Somewhat limited Slope	0.16

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
187: Shenon-----	45	Very limited Restricted permeability	1.00	Somewhat limited Slope Seepage	0.92 0.50	Not limited	
Perreau-----	35	Not limited		Very limited Seepage Slope	1.00 0.92	Somewhat limited Gravel content Seepage	1.00 0.52
188: Shenon-----	55	Very limited Restricted permeability Slope	1.00 0.63	Very limited Slope Seepage	1.00 0.50	Somewhat limited Slope	0.63
Perreau-----	30	Not limited		Very limited Seepage Slope	1.00 1.00	Somewhat limited Gravel content Seepage	1.00 0.52
189: Simeroi-----	85	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Gravel content Carbonate content Seepage	1.00 1.00 0.22
190: Simeroi-----	95	Very limited Filtering capacity Slope	1.00 0.16	Very limited Seepage Slope	1.00 1.00	Very limited Gravel content Carbonate content Seepage Slope	1.00 1.00 0.22 0.16
191: Simeroi, cold-----	70	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Very limited Seepage Gravel content Too sandy	1.00 1.00 0.50
Simeroi-----	20	Not limited		Very limited Seepage Slope	1.00 0.68	Very limited Gravel content Carbonate content Seepage	1.00 1.00 0.22
192: Simeroi-----	50	Somewhat limited Slope	0.84	Very limited Slope Seepage	1.00 1.00	Very limited Gravel content Carbonate content Slope Seepage	1.00 1.00 0.84 0.22
Paint-----	25	Very limited Depth to cemented pan Slope	1.00 0.84	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 1.00	Very limited Depth to cemented pan Carbonate content Slope Gravel content	1.00 1.00 0.84 0.29

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
192: Sanfelipe-----	15	Very limited Filtering capacity Slope Restricted permeability	1.00 0.84 0.50	Very limited Slope Seepage	1.00 1.00	Very limited Gravel content Carbonate content Slope	1.00 1.00 0.84
193: Simeroi-----	80	Not limited		Very limited Seepage Slope	1.00 0.68	Very limited Gravel content Carbonate content Seepage	1.00 1.00 0.22
Whitecloud-----	15	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Very limited Too sandy Seepage Carbonate content Gravel content	1.00 1.00 1.00 1.00
194: Skibo-----	75	Very limited Slope Content of large stones	1.00 0.93	Very limited Slope Content of large stones Seepage	1.00 1.00 1.00	Very limited Slope Carbonate content Content of large stones Gravel content Seepage	1.00 1.00 0.84 0.56 0.22
195: Smout-----	60	Very limited Flooding Filtering capacity Depth to saturated zone	1.00 1.00 0.40	Very limited Flooding Seepage	1.00 1.00 1.00	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
Cowbone-----	25	Very limited Flooding Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 0.22
196: Smout-----	55	Very limited Flooding Filtering capacity Depth to saturated zone	1.00 1.00 0.40	Very limited Flooding Seepage	1.00 1.00 1.00	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
Yearian-----	30	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 0.50	Very limited Depth to saturated zone Gravel content	1.00 1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
197: Snowslide-----	90	Somewhat limited Restricted permeability Content of large stones	0.50 0.07	Somewhat limited Slope Seepage Content of large stones	0.92 0.50 0.16	Somewhat limited Gravel content Content of large stones	0.97 0.01
198: Snowslide-----	85	Somewhat limited Restricted permeability	0.50	Somewhat limited Seepage Slope Content of large stones	0.50 0.32 0.30	Very limited Gravel content	1.00
199: Snowslide-----	85	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage Content of large stones	1.00 0.50 0.30	Very limited Slope Gravel content	1.00 1.00
200: Snowslide-----	40	Very limited Filtering capacity Slope Restricted permeability	1.00 1.00 0.50	Very limited Seepage Slope	1.00 1.00	Very limited Gravel content Slope Seepage	1.00 1.00 0.52
Badland-----	20	Not rated		Not rated		Not rated	
Perreau-----	20	Very limited Slope	1.00	Very limited Seepage Slope	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 1.00 0.52
201: Snowslide-----	60	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage Content of large stones	1.00 0.50 0.30	Very limited Gravel content Slope	1.00 1.00
Farvant-----	30	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.51	Very limited Depth to soft bedrock Slope Content of large stones	1.00 1.00 0.51	Very limited Depth to bedrock Slope Seepage Content of large stones Gravel content	1.00 1.00 0.52 0.51 0.08
202: Snowslide, south---	35	Somewhat limited Slope Restricted permeability Content of large stones	0.84 0.50 0.07	Very limited Slope Seepage Content of large stones	1.00 0.50 0.16	Somewhat limited Gravel content Slope Content of large stones	0.97 0.84 0.01

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
202: Zer-----	30	Very limited Filtering capacity Slope Content of large stones	1.00 1.00 0.07	Very limited Seepage Slope Content of large stones	1.00 1.00 0.01	Very limited Seepage Slope Gravel content Too sandy Content of large stones	1.00 1.00 0.76 0.50 0.22
Snowslide, north----	20	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Gravel content Slope	1.00 1.00
203: Soen-----	80	Very limited Restricted permeability	1.00	Not limited		Somewhat limited Too clayey Gravel content	0.50 0.05
204: Soen-----	40	Very limited Restricted permeability Slope	1.00 0.63	Very limited Slope	1.00	Somewhat limited Slope Too clayey Gravel content	0.63 0.50 0.04
Justesen-----	30	Very limited Restricted permeability Slope	1.00 0.63	Very limited Slope Seepage	1.00 0.28	Somewhat limited Slope Too clayey	0.63 0.50
Howcan-----	15	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 0.84
205: Sparmo-----	95	Somewhat limited Restricted permeability	0.50	Very limited Seepage Slope	1.00 0.08	Somewhat limited Gravel content	0.15
206: Sparmo-----	45	Somewhat limited Restricted permeability	0.50	Very limited Seepage Slope	1.00 0.08	Somewhat limited Gravel content	0.13
Zer-----	40	Very limited Filtering capacity Content of large stones	1.00 0.17	Very limited Seepage Content of large stones Slope	1.00 0.28 0.08	Very limited Seepage Gravel content Too sandy Content of large stones	1.00 0.80 0.50 0.32
207: Sparmo-----	45	Somewhat limited Restricted permeability Slope	0.50 0.04	Very limited Seepage Slope	1.00 1.00	Somewhat limited Gravel content Slope	0.13 0.04

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
207: Zer-----	45	Very limited Filtering capacity Content of large stones Slope	1.00 0.17 0.04	Very limited Seepage Slope Content of large stones	1.00 1.00 0.28	Very limited Seepage Gravel content Too sandy Content of large stones Slope	1.00 0.80 0.50 0.32 0.04
208: Sprabat-----	80	Very limited Filtering capacity	1.00	Very limited Seepage	1.00	Somewhat limited Seepage Gravel content	0.52 0.26
209: Sprabat-----	65	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Somewhat limited Seepage Gravel content	0.52 0.26
Snowslide-----	25	Somewhat limited Restricted permeability Content of large stones	0.50 0.07	Somewhat limited Slope Seepage Content of large stones	0.68 0.50 0.16	Somewhat limited Gravel content Content of large stones	0.97 0.01
210: Struggle-----	55	Very limited Filtering capacity Slope	1.00 0.16	Very limited Seepage Slope	1.00 1.00	Very limited Too sandy Seepage Gravel content Slope Content of large stones	1.00 1.00 0.92 0.16 0.04
Struggle, very stony	30	Very limited Filtering capacity Slope Content of large stones	1.00 1.00 0.08	Very limited Slope Seepage Content of large stones	1.00 1.00 0.01	Very limited Slope Too sandy Seepage Gravel content Content of large stones	1.00 1.00 1.00 0.89 0.29
211: Surrett-----	80	Very limited Depth to cemented pan Restricted permeability	1.00 0.50	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.68	Very limited Depth to cemented pan Gravel content	1.00 0.99
212: Surrett-----	45	Very limited Depth to cemented pan Restricted permeability	1.00 0.50	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.92	Very limited Depth to cemented pan Gravel content	1.00 0.99
Nurkey-----	45	Somewhat limited Restricted permeability	0.50	Somewhat limited Slope Seepage	0.92 0.50	Somewhat limited Gravel content	0.35

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
213: Swahlen-----	65	Somewhat limited Restricted permeability	0.50	Very limited Seepage Slope	1.00 0.68	Very limited Gravel content Seepage	1.00 0.52
Packham-----	20	Very limited Filtering capacity Restricted permeability	1.00 0.50	Very limited Seepage Slope	1.00 0.68	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
214: Swahlen-----	55	Somewhat limited Restricted permeability	0.50	Very limited Seepage	1.00	Very limited Gravel content Seepage	1.00 0.52
Yearian-----	30	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage Content of large stones	1.00 1.00 0.50 0.38	Very limited Depth to saturated zone Gravel content	1.00 1.00 1.00
215: Thosand-----	55	Very limited Flooding Depth to saturated zone Filtering capacity Ponding Restricted permeability	1.00 1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Gravel content	1.00 1.00 1.00 0.59
Chillybu-----	35	Very limited Flooding Ponding Depth to saturated zone Subsidence Restricted permeability	1.00 1.00 1.00 1.00 0.50	Very limited Ponding Flooding Depth to saturated zone Content of organic matter Seepage	1.00 1.00 1.00 1.00 0.50	Very limited Ponding Depth to saturated zone Content of organic matter	1.00 1.00 1.00
216: Thosand-----	45	Very limited Flooding Depth to saturated zone Filtering capacity Ponding Restricted permeability	1.00 1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Gravel content	1.00 1.00 1.00 0.59

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
216: Sancrane-----	35	Very limited Depth to saturated zone Filtering capacity Ponding Restricted permeability	1.00 1.00 1.00 0.50	Very limited Seepage Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage Ponding Too sandy Gravel content	1.00 1.00 1.00 0.50 0.41
217: Thosand-----	45	Very limited Flooding Depth to saturated zone Filtering capacity Ponding Restricted permeability	1.00 1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Gravel content	1.00 1.00 1.00 0.59
Wisgisprings-----	35	Very limited Flooding Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone	1.00
218: Threedot-----	90	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Slope Depth to saturated zone Seepage	1.00 1.00 0.50	Very limited Too clayey Slope Depth to saturated zone Gravel content	1.00 1.00 1.00 0.66
219: Threedot-----	80	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Depth to saturated zone Slope	1.00 1.00	Very limited Too clayey Slope Depth to saturated zone Gravel content	1.00 1.00 1.00 0.88
220: Threedot, dry-----	45	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Slope Depth to saturated zone	1.00 1.00	Very limited Slope Too clayey Depth to saturated zone Gravel content	1.00 1.00 1.00 0.90
Threedot-----	35	Very limited Restricted permeability Depth to saturated zone Slope	1.00 1.00 1.00	Very limited Slope Depth to saturated zone Seepage	1.00 1.00 0.50	Very limited Slope Too clayey Depth to saturated zone Gravel content	1.00 1.00 1.00 0.66

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
221: Typic Cryaquepts----	80	Very limited Depth to saturated zone Restricted permeability	1.00 0.78	Very limited Depth to saturated zone Seepage	1.00 0.28	Not rated	
222: Ureal-----	40	Very limited Depth to bedrock Slope Content of large stones	1.00 1.00 0.42	Very limited Depth to soft bedrock Slope Seepage Content of large stones	1.00 1.00 1.00 1.00 0.35	Very limited Depth to bedrock Slope Gravel content Seepage Content of large stones	1.00 1.00 0.64 0.52 0.42
Zeebar-----	30	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content	1.00 1.00
Dacont-----	15	Very limited Slope Content of large stones Restricted permeability	1.00 0.72 0.50	Very limited Slope Seepage Content of large stones	1.00 0.50 0.45	Very limited Slope Content of large stones Gravel content	1.00 0.93 0.69
223: Venum-----	50	Very limited Restricted permeability Slope Content of large stones	1.00 1.00 0.67	Very limited Slope Content of large stones	1.00 1.00	Very limited Slope Hard to compact Content of large stones Gravel content	1.00 1.00 0.41 0.14
Cronks-----	40	Very limited Restricted permeability Slope Content of large stones	1.00 1.00 0.87	Very limited Slope Content of large stones Seepage	1.00 1.00 0.28	Very limited Slope Too clayey Hard to compact Content of large stones	1.00 1.00 1.00 0.94
224: Venum-----	60	Very limited Restricted permeability Slope Content of large stones	1.00 1.00 0.33	Very limited Slope Content of large stones	1.00 1.00	Very limited Slope Gravel content Content of large stones	1.00 0.62 0.19
Rock outcrop-----	20	Not rated		Not rated		Not rated	
225: Venum-----	55	Very limited Restricted permeability Slope Content of large stones	1.00 1.00 0.67	Very limited Slope Content of large stones	1.00 1.00	Very limited Slope Hard to compact Content of large stones Gravel content	1.00 1.00 0.41 0.14

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
225: Custco-----	30	Very limited Slope Filtering capacity	1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Seepage	1.00 1.00 1.00
226: Whitecloud-----	85	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Too sandy Seepage Carbonate content Gravel content	1.00 1.00 1.00 1.00
227: Whitecloud-----	80	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Very limited Too sandy Seepage Carbonate content Gravel content	1.00 1.00 1.00 1.00
228: Whitecloud-----	40	Very limited Filtering capacity Slope	1.00 0.16	Very limited Seepage Slope	1.00 1.00	Very limited Too sandy Seepage Carbonate content Gravel content Slope	1.00 1.00 1.00 1.00 0.16
Sanfelipe-----	25	Very limited Filtering capacity Restricted permeability Slope	1.00 0.50 0.16	Very limited Slope Seepage	1.00 1.00	Very limited Gravel content Carbonate content Slope	1.00 1.00 0.16
Fandow-----	20	Very limited Depth to cemented pan Slope	1.00 0.16	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 1.00	Very limited Depth to cemented pan Gravel content Carbonate content Slope	1.00 1.00 1.00 0.16
229: Whitecloud-----	65	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Very limited Too sandy Seepage Carbonate content Gravel content	1.00 1.00 1.00 1.00
Simeroi-----	25	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Very limited Gravel content Carbonate content Seepage	1.00 1.00 0.22
230: Whiteknob-----	90	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
231: Whitknob-----	60	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.68	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
Leadore-----	30	Very limited Filtering capacity Content of large stones	1.00 0.07	Very limited Seepage Slope	1.00 0.68	Very limited Seepage Content of large stones Too sandy Gravel content	1.00 0.52 0.50 0.18
232: Whitknob-----	60	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.32	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
Zer-----	20	Very limited Filtering capacity Content of large stones	1.00 0.20	Very limited Seepage Content of large stones Slope	1.00 0.34 0.32	Very limited Seepage Gravel content Too sandy Content of large stones	1.00 0.80 0.50 0.34
233: Wiggleton-----	85	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.92	Very limited Seepage Gravel content Too sandy	1.00 1.00 0.50
234: Wiggleton-----	45	Very limited Filtering capacity Content of large stones	1.00 0.38	Very limited Seepage Content of large stones	1.00 0.14	Very limited Seepage Gravel content Content of large stones Too sandy	1.00 0.71 0.69 0.50
Copperbasin-----	35	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 0.70	Very limited Flooding Seepage Depth to saturated zone Content of large stones	1.00 1.00 1.00 0.50	Very limited Too sandy Seepage Content of large stones Depth to saturated zone Gravel content	1.00 1.00 0.93 0.44 0.26
235: Wimpey-----	35	Very limited Flooding Restricted permeability Depth to saturated zone Filtering capacity	1.00 1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Too sandy Seepage Depth to saturated zone Gravel content	1.00 1.00 0.68 0.08

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
235: Zeph-----	30	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone Too sandy Seepage Gravel content	1.00 1.00 1.00 1.00 1.00
Ajax-----	20	Very limited Flooding Restricted permeability Depth to saturated zone	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 0.21	Very limited Depth to saturated zone	1.00
236: Windcoat-----	90	Very limited Depth to cemented pan	1.00	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 0.32	Very limited Depth to cemented pan Carbonate content Gravel content	1.00 1.00 0.41
237: Windcoat-----	45	Very limited Depth to cemented pan Slope	1.00 0.84	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 1.00	Very limited Depth to cemented pan Carbonate content Slope Gravel content	1.00 1.00 0.84 0.41
Fadow-----	35	Very limited Depth to cemented pan Slope	1.00 0.84	Very limited Depth to cemented pan Seepage Slope	1.00 1.00 1.00	Very limited Depth to cemented pan Carbonate content Gravel content Slope	1.00 1.00 0.95 0.84
238: Wiskisprings-----	45	Very limited Flooding Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone	1.00
Biglost-----	35	Very limited Flooding Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Seepage Gravel content Too sandy	1.00 0.76 0.50

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
239: Wiskisprings-----	40	Very limited Flooding Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Depth to saturated zone	1.00
Biglost-----	30	Very limited Flooding Depth to saturated zone Filtering capacity Restricted permeability	1.00 1.00 1.00 0.50	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00	Very limited Seepage Gravel content Too sandy	1.00 0.76 0.50
Copperbasin-----	20	Very limited Flooding Depth to saturated zone Filtering capacity Content of large stones	1.00 1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone Content of large stones	1.00 1.00 1.00 1.00	Very limited Too sandy Seepage Content of large stones Depth to saturated zone Gravel content	1.00 1.00 1.00 0.44 0.30
240: Xeric Torrifluents	75	Very limited Flooding Filtering capacity Restricted permeability	1.00 1.00 0.50	Very limited Flooding Seepage	1.00 1.00	Not limited	
241: Yearian-----	80	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Seepage Content of large stones Slope	1.00 1.00 0.50 0.38 0.08	Very limited Depth to saturated zone Gravel content	1.00 1.00
242: Yearian-----	80	Very limited Depth to saturated zone Restricted permeability	1.00 0.50	Very limited Depth to saturated zone Slope Content of large stones Seepage	1.00 0.92 0.73 0.50	Very limited Depth to saturated zone Gravel content	1.00 1.00
243: Zeale-----	75	Somewhat limited Slope Restricted permeability Content of large stones	0.63 0.50 0.05	Very limited Slope Seepage Content of large stones	1.00 0.50 0.04	Very limited Carbonate content Gravel content Slope Content of large stones	1.00 0.72 0.63 0.13

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
243: Meegero-----	15	Somewhat limited Slope Restricted permeability	0.63 0.50	Very limited Slope Seepage	1.00 1.00	Very limited Carbonate content Slope Seepage Content of large stones Gravel content	1.00 0.63 0.22 0.19 0.15
244: Zeale-----	55	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.05	Very limited Slope Seepage Content of large stones	1.00 0.50 0.04	Very limited Slope Carbonate content Gravel content Content of large stones	1.00 1.00 0.72 0.13
Meegero-----	30	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 1.00	Very limited Slope Carbonate content Seepage Content of large stones Gravel content	1.00 1.00 0.22 0.19 0.15
245: Zeale-----	45	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.05	Very limited Slope Seepage Content of large stones	1.00 0.50 0.04	Very limited Slope Carbonate content Gravel content Content of large stones	1.00 1.00 0.72 0.13
Zeelnot-----	30	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Carbonate content Gravel content Too clayey Content of large stones	1.00 1.00 0.57 0.50 0.08
246: Zeebar-----	35	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Too clayey	1.00 1.00 0.50
Nielsen-----	30	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to hard bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Gravel content Too clayey	1.00 1.00 0.96 0.50
Povey-----	20	Very limited Slope Restricted permeability Content of large stones	1.00 0.50 0.12	Very limited Slope Seepage Content of large stones	1.00 0.50 0.02	Very limited Slope Gravel content Content of large stones	1.00 0.69 0.29

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
247: Zeebar-----	55	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Content of large stones	1.00 1.00 0.01
Parkay-----	30	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Too clayey	1.00 0.85 0.50
248: Zeebar-----	45	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Gravel content Content of large stones	1.00 1.00 0.01
Resoot-----	35	Very limited Restricted permeability Slope	1.00 1.00	Very limited Slope	1.00	Very limited Slope Gravel content Too clayey	1.00 1.00 0.50
249: Zeegee-----	45	Very limited Flooding Depth to saturated zone Restricted permeability	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 0.50	Very limited Depth to saturated zone Too clayey Gravel content	1.00 0.50 0.08
Ajax-----	35	Very limited Flooding Restricted permeability Depth to saturated zone	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 0.21	Very limited Depth to saturated zone Hard to compact Too clayey	1.00 1.00 1.00 0.50
250: Zeelnot-----	85	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Carbonate content Gravel content Too clayey Content of large stones	1.00 1.00 0.57 0.50 0.08
251: Zeelnot-----	90	Very limited Slope Restricted permeability Content of large stones	1.00 1.00 0.01	Very limited Slope Seepage	1.00 0.50	Very limited Slope Carbonate content Too clayey Content of large stones Gravel content	1.00 1.00 0.50 0.36 0.25

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
252: Zeelnot-----	40	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Seepage	1.00 0.50	Very limited Slope Carbonate content Gravel content Too clayey Content of large stones	1.00 1.00 0.57 0.50 0.08
Meegernot-----	30	Very limited Slope Restricted permeability Filtering capacity	1.00 1.00 1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content	1.00 1.00
Adek-----	15	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage	1.00 0.50	Very limited Slope Carbonate content Gravel content Content of large stones	1.00 1.00 0.97 0.01
253: Zer-----	95	Very limited Slope Filtering capacity Content of large stones	1.00 1.00 0.07	Very limited Slope Seepage Content of large stones	1.00 1.00 0.01	Very limited Slope Seepage Gravel content Too sandy Content of large stones	1.00 1.00 0.76 0.50 0.22
254: Zer-----	80	Very limited Slope Content of large stones	1.00 0.05	Very limited Slope Seepage Content of large stones	1.00 1.00 0.07	Very limited Slope Gravel content Seepage Content of large stones	1.00 0.72 0.52 0.11
255: Zer-----	85	Not limited		Very limited Seepage Slope	1.00 0.08	Very limited Gravel content Seepage	1.00 0.52
256: Zer-----	85	Somewhat limited Slope	0.04	Very limited Seepage Slope	1.00 1.00	Somewhat limited Gravel content Seepage Slope Content of large stones	0.67 0.52 0.04 0.02
257: Zer-----	80	Not limited		Very limited Seepage Slope	1.00 1.00	Very limited Gravel content Seepage	1.00 0.52

Table 9.--Sanitary Facilities--Continued

Map symbol and soil name	Pct. of map unit	Septic tank absorption fields		Sewage lagoons		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
258: Zer-----	80	Very limited Slope Filtering capacity Restricted permeability	1.00 1.00 0.50	Very limited Slope Seepage	1.00 1.00 1.00	Very limited Slope Too sandy Seepage Gravel content	1.00 1.00 1.00 1.00
259: Zer-----	75	Very limited Filtering capacity Content of large stones	1.00 0.07	Very limited Seepage Slope Content of large stones	1.00 0.08 0.01	Very limited Seepage Gravel content Too sandy Content of large stones	1.00 0.76 0.50 0.22
Snowslide-----	20	Somewhat limited Restricted permeability	0.50	Somewhat limited Seepage Slope	0.50 0.08	Very limited Gravel content	1.00
260: Zer-----	70	Very limited Filtering capacity Slope Content of large stones	1.00 1.00 0.07	Very limited Seepage Slope Content of large stones	1.00 1.00 0.01	Very limited Seepage Slope Gravel content Too sandy Content of large stones	1.00 1.00 0.76 0.50 0.22
Snowslide-----	15	Very limited Slope Restricted permeability	1.00 0.50	Very limited Slope Seepage Content of large stones	1.00 0.50 0.16	Very limited Gravel content Slope	1.00 1.00
261: Zer-----	70	Very limited Filtering capacity Content of large stones	1.00 0.10	Very limited Seepage Slope Content of large stones	1.00 0.08 0.01	Very limited Seepage Gravel content Too sandy Content of large stones	1.00 0.77 0.50 0.24
Whiteknob-----	20	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.08	Very limited Too sandy Seepage Gravel content	1.00 1.00 1.00
262: Simeroi-----	85	Very limited Slope	1.00	Very limited Slope Seepage	1.00 1.00	Very limited Slope Gravel content Carbonate content Seepage	1.00 1.00 1.00 0.22
263: Water-----	100	Not rated		Not rated		Not rated	

Table 10.--Construction Materials

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 1.00. The closer the value is to 0, the greater the potential limitation. Values of 0.00 are absolute limitations based on the soil property criteria used to develop the interpretation. Values closer to 1.00 have less of a limitation. Limiting features with value of 1.00 have no limitation. Rating classes are determined by the most limiting value. Fine-earth fraction and fragment content are reported on a weight basis. A brief rating criteria summary and abbreviations used in the ratings are given at the end of the table)

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1: Alpinepeak-----	75	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.43	Poor source Hard to reclaim Rock fragment content	0.00 0.00
2: Aguents-----	75	Fair source Bottom layer possible source Thickest layer possible source	0.14 0.14	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00
Riverwash-----	20	Not rated		Not rated		Not rated	
3: Arbus-----	85	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.62	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.11	Poor source Calcium carbonates >40% Sand fractions >85% Hard to reclaim Rock fragment content SAR >13	0.00 0.00 0.00 0.00 0.00
4: Arco-----	90	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Good source Calcium carbonates 15-40% Wetness from 1 to 3'	0.80 0.89
5: Badland-----	50	Not rated		Not rated		Not rated	
Millhi-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth SAR >13 EC >8 mmhos Clay >40% Slope >15% Rock fragment content	0.00 0.00 0.00 0.00 0.00 0.28

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
6: Bartonflat-----	80	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.22
7: Bartonflat-----	75	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.22
8: Bartonhill-----	55	Good source Thickest layer possible source Bottom layer possible source	0.44 0.81	Poor source Bottom layer possible source Thickest layer possible source	0.01 0.04	Poor source Calcium carbonates >40% Rock fragment content Slope 8 to 12%	0.00 0.00 0.84
Whitecloud-----	30	Fair source Thickest layer possible source Bottom layer possible source	0.38 0.62	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.58	Poor source Calcium carbonates >40% Sand fractions >85% Hard to reclaim Rock fragment content Slope 8 to 12%	0.00 0.00 0.00 0.00 0.84
9: Bayhorse, north---	40	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00
Bayhorse, south---	35	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00
10: Bayhorse-----	45	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
10: Dawtonia-----	40	Fair source Bottom layer possible source Thickest layer possible source	0.31 0.31	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
11: Bigflat-----	60	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Clay 27 to 40% Rock fragment content	0.00 0.82 0.97
Dacont-----	20	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.00
12: Biglost-----	50	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.88
Copperbasin-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Wetness from 1 to 3'	0.00 0.00 0.02 0.91
13: Bigrant, very poorly drained----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth Clay 27 to 40% Calcium carbonates 15-40%	0.00 0.12 0.46
Bigrant, poorly drained-----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth EC 4 to 8 mmhos Calcium carbonates 15-40% Clay <27%	0.00 0.50 0.80 0.99

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
14: Bigrant-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.50 0.80
Thosand-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.08	Poor source Wetness <1' depth Hard to reclaim	0.00 0.00
Dickeypeak-----	20	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.10	Fair source Calcium carbonates 15-40% SAR 4 to 13 Wetness from 1 to 3'	0.08 0.78 0.91
15: Blackfoot-----	75	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Good source	1.00
16: Blackfoot-----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Good source	1.00
Borco-----	40	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Good source Thickest layer not a source Bottom layer possible source	0.00 0.75	Poor source Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00
17: Bluedome-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.11	Poor source Calcium carbonates >40% Rock fragment content Depth to pan 20 to 40"	0.00 0.03 0.85
18: Bock-----	55	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair source Rock fragment content	0.50

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
18: Breitenbach-----	25	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Hard to reclaim Rock fragment content	0.00 0.00
19: Bock-----	55	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.10	Poor source Hard to reclaim Rock fragment content	0.00 0.50
Bromaglin-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.62 0.62	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.14	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.01
20: Bockston-----	75	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair source Hard to reclaim	0.32
21: Brabas-----	65	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Slope >15% Calcium carbonates 15-40%	0.00 0.00 0.80
Heathcoat-----	25	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Slope >15% Rock fragment content	0.00 0.00 0.50
22: Breitenbach-----	75	Fair source Thickest layer possible source Bottom layer possible source	0.37 0.62	Fair source Thickest layer possible source Bottom layer possible source	0.04 0.08	Poor source Hard to reclaim Rock fragment content	0.00 0.00
23: Breitenbach-----	75	Fair source Thickest layer possible source Bottom layer possible source	0.37 0.62	Fair source Thickest layer possible source Bottom layer possible source	0.04 0.08	Poor source Hard to reclaim Rock fragment content	0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
24: Breitenbach-----	75	Fair source Thickest layer possible source Bottom layer possible source	0.37 0.62	Fair source Thickest layer possible source Bottom layer possible source	0.04 0.08	Poor source Hard to reclaim Rock fragment content Slope 8 to 12%	0.00 0.00 0.84
25: Bunting-----	95	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.00
26: Bunting-----	95	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.00
27: Bunting-----	70	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.00
Moffspring-----	25	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.00
28: Bursteadt-----	50	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Wetness from 1 to 3' Calcium carbonates 15-40%	0.00 0.89 0.92
Tohobit-----	35	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Hard to reclaim Wetness from 1 to 3'	0.00 0.02 0.76
29: Busterback-----	60	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Rock fragment content Hard to reclaim	0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
29: Wiggleton-----	20	Fair source Thickest layer possible source Bottom layer possible source	0.19 0.49	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.10	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.36
30: Calcids-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.49	Poor source Thickest layer possible source Bottom layer possible source	0.03 0.06	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Badland-----	25	Not rated		Not rated		Not rated	
Xerolls-----	20	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content EC 4 to 8 mmhos Hard to reclaim Clay 27 to 40%	0.00 0.00 0.50 0.82 0.98
31: Calcids-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.49	Poor source Thickest layer possible source Bottom layer possible source	0.03 0.06	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Rubble land-----	25	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
32: Castlepeak-----	50	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.14
Yankeefork-----	40	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.00
33: Chamberlain-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.49	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.46

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
34: Coalkiln-----	70	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.34	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Zeelnot-----	20	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.08
35: Copperbasin-----	55	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Wetness from 1 to 3'	0.00 0.00 0.02 0.91
Redfish-----	20	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00
36: Copperbasin-----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Wetness from 1 to 3'	0.00 0.00 0.02 0.91
Redfish-----	35	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Sand fractions >85% Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
37: Cowbone-----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth	0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
37: Tohobit-----	35	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Hard to reclaim Wetness from 1 to 3'	0.00 0.02 0.76
38: Cronks-----	55	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay >40%	0.00 0.00 0.00 0.00
Challis-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.12 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Clay >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
39: Cronks-----	60	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Clay >40% Slope 12 to 15%	0.00 0.00 0.00 0.16
Venum-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Clay >40% Slope 12 to 15%	0.00 0.00 0.00 0.16
40: Cryolls-----	65	Poor source Bottom layer not a source Thickest layer possible source	0.00 0.06	Poor source Bottom layer not a source Thickest layer possible source	0.00 0.02	Poor source Slope >15% Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.00 0.92
Rubble land-----	20	Not rated		Not rated		Not rated	

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
41: Cryolls-----	50	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Sand fractions >85% Rock fragment content Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.00 0.68 0.92
Rubble land-----	20	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
42: Cryepts-----	50	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Rubble land-----	20	Not rated		Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated		Not rated	
43: Custco-----	80	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope 12 to 15% Calcium carbonates 15-40%	0.00 0.00 0.37 0.92
44: Dacont-----	50	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Custco-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.92
45: Dacont-----	35	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.12	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope >15%	0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
45: Resoot-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Clay >40% Slope >15%	0.00 0.00 0.00 0.00
Nielsen-----	25	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Depth to bedrock <20" Slope >15%	0.00 0.00 0.00
46: Dacont-----	40	Fair source Thickest layer possible source Bottom layer possible source	0.12 0.29	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
Zeebar-----	40	Fair source Thickest layer possible source Bottom layer possible source	0.20 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
47: Darlington-----	55	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.09	Poor source Hard to reclaim Rock fragment content	0.00 0.00
Lesbut-----	25	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.00
48: Dawtonia-----	80	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.97

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
49: Dawtonia-----	75	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope >15% Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
Dawtonia, cold----	20	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.97
50: Dawtonia, cold----	85	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.97
Dawtonia-----	15	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.97
51: Dawtonia-----	45	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
Frailton-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20" Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
52: Dawtonia-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope >15% Calcium carbonates 15-40%	0.00 0.00 0.00 0.92

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
52: Kehar-----	30	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Slope >15% Clay 27 to 40% Rock fragment content	0.00 0.00 0.02 0.12
Soen-----	20	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Slope >15% Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.50 0.92
53: Dawtonia-----	60	Fair source Bottom layer possible source Thickest layer possible source	0.31 0.31	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
Rock outcrop-----	20	Not rated		Not rated		Not rated	
54: Dawtonia-----	50	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
Custco-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.92
55: Dawtonia-----	50	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
Dacont-----	30	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.12	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
56: Derwell-----	65	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.57	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.32
Whiteknob-----	15	Fair source Bottom layer possible source Thickest layer possible source	0.29 0.29	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.29	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
57: Derwell-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.57	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.32
Zer-----	25	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.08	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.30 0.80
Packmo-----	20	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.20	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope 12 to 15%	0.00 0.00 0.16
58: Dickeypeak-----	60	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.10	Fair source Calcium carbonates 15-40% SAR 4 to 13 Wetness from 1 to 3'	0.08 0.78 0.91
Bigrant-----	25	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.50 0.80
59: Donkehill-----	85	Good source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.88	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
60: Donkehill-----	45	Good source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.88	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Rock fragment content Depth to bedrock <20" Slope >15%	0.00 0.00 0.00
Zeebar-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope >15%	0.00 0.00 0.00
61: Donkehill-----	40	Good source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.88	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00
Zeebar-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.20 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
62: Dumps, mine-----	100	Not rated		Not rated		Not rated	
63: Escarlo-----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Calcium carbonates >40% Rock fragment content Slope >15% Clay 27 to 40%	0.00 0.00 0.00 0.01
Heathcoat-----	40	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.08 0.50
64: Escarlo-----	55	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Calcium carbonates >40% Rock fragment content Slope >15% Clay 27 to 40% Hard to reclaim	0.00 0.00 0.00 0.01 0.08

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
64: Heathcoat-----	40	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.08 0.50
65: Ezbin-----	40	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Zeebar-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Nielsen-----	15	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00
66: Fandow-----	85	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content	0.00 0.00 0.00
67: Fandow-----	50	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content	0.00 0.00 0.00
Arbus-----	45	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.62	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.11	Poor source Calcium carbonates >40% Sand fractions >85% Hard to reclaim Rock fragment content SAR >13	0.00 0.00 0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
68: Farvant-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Depth to bedrock <20" Rock fragment content EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.00 0.50 0.80
Badland-----	25	Not rated		Not rated		Not rated	
Gradco-----	20	Fair source Thickest layer possible source Bottom layer possible source	0.11 0.14	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.48
69: Farvant-----	45	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Slope >15% Depth to bedrock <20" Rock fragment content EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.00 0.50 0.80
Sactus-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.49	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Depth to bedrock <20" Slope >15%	0.00 0.00 0.00
Dawtonia-----	15	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.92
70: Fezip-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.49	Fair source Bottom layer possible source Thickest layer possible source	0.10 0.11	Poor source Wetness <1' depth Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.00 0.20
Lemroi-----	25	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.50	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Hard to reclaim Rock fragment content Wetness from 1 to 3' Sand fractions 75-85%	0.00 0.00 0.00 0.03

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
70: Redfish-----	15	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Sand fractions >85% Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
71: Fezip-----	40	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.49	Fair source Bottom layer possible source Thickest layer possible source	0.10 0.11	Poor source Wetness <1' depth Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.00 0.20
Redfish-----	25	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Sand fractions >85% Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Copperbasin-----	15	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Wetness from 1 to 3'	0.00 0.00 0.00 0.91
72: Firebox-----	85	Good source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.75	Fair source Thickest layer possible source Bottom layer possible source	0.04 0.10	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.27
73: Firebox-----	95	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.30
74: Frailton-----	50	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20" Calcium carbonates 15-40%	0.00 0.00 0.00 0.80

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
74: Dawtonia-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
75: Frailton-----	50	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20" Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
Gradco-----	25	Fair source Thickest layer possible source Bottom layer possible source	0.14 0.14	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.52
76: Friedman-----	40	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Hard to reclaim Rock fragment content Slope >15%	0.00 0.00 0.00 0.00
Reck-----	25	Poor source Bottom layer not a source Thickest layer possible source	0.00 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Rock fragment content Hard to reclaim Slope >15%	0.00 0.00 0.00 0.00
Goldhill-----	20	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Clay >40% Slope >15% Hard to reclaim	0.00 0.00 0.00 0.50
77: Gaciba-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
77: Cronks-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay >40%	0.00 0.00 0.00 0.00
78: Gaciba-----	70	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00
Dacont-----	15	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.12	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
79: Gany-----	80	Fair source Thickest layer possible source Bottom layer possible source	0.12 0.29	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.16
80: Geemore-----	90	Fair source Bottom layer possible source Thickest layer possible source	0.19 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Clay 27 to 40%	0.00 0.00 0.92
81: Germer-----	55	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.43	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Hard to reclaim Rock fragment content EC >8 mmhos SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.00 0.60 0.80
Dawtonia-----	25	Fair source Bottom layer possible source Thickest layer possible source	0.31 0.31	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.80

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
82: Goldaho-----	65	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Rock fragment content Slope >15% Calcium carbonates 15-40% SAR 4 to 13	0.00 0.00 0.00 0.32 0.40
Zer-----	25	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.08	Poor source Hard to reclaim Rock fragment content Slope >15% Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.00 0.30 0.80
83: Goldhill-----	50	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Clay >40% Slope >15%	0.00 0.00 0.00 0.00
Zeebar-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
84: Goosebury-----	80	Fair source Thickest layer possible source Bottom layer possible source	0.12 0.49	Fair source Thickest layer possible source Bottom layer possible source	0.03 0.11	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.46
85: Goosebury-----	90	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.12	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Hard to reclaim Rock fragment content Slope 12 to 15% Calcium carbonates 15-40%	0.00 0.00 0.16 0.68
86: Goosebury-----	60	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.12	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Hard to reclaim Rock fragment content Slope 12 to 15% Calcium carbonates 15-40%	0.00 0.00 0.16 0.46

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
86: Windcoat-----	25	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.56	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content Slope 12 to 15% EC 4 to 8 mmhos SAR 4 to 13	0.00 0.00 0.00 0.16 0.50 0.60
87: Gradco-----	45	Fair source Thickest layer possible source Bottom layer possible source	0.14 0.14	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.68
Farvant-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20" Calcium carbonates 15-40% EC 4 to 8 mmhos	0.00 0.00 0.00 0.46 0.50
88: Gradco-----	50	Fair source Thickest layer possible source Bottom layer possible source	0.14 0.14	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock 20 to 40"	0.00 0.00 0.68
Farvant-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20" Calcium carbonates 15-40% EC 4 to 8 mmhos	0.00 0.00 0.00 0.46 0.50
89: Hagenbarth-----	65	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.32
Brabas-----	25	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Slope >15% Calcium carbonates 15-40%	0.00 0.00 0.80

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
90: Heathcoat-----	75	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Hard to reclaim Slope 12 to 15% Rock fragment content	0.00 0.08 0.37 0.50
91: Heathcoat-----	50	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.08 0.50
Goldhill-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Slope >15% Rock fragment content SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.50 0.90 0.92
92: Heathcoat-----	45	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Slope >15% Clay 27 to 40% Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.05 0.08 0.97
Soen-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.50 0.95
93: Howcan-----	35	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.12	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
Hagenbarth-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.32

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
93: Hutchley-----	20	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Depth to bedrock <20" Slope 12 to 15% Clay 27 to 40%	0.00 0.00 0.16 0.98
94: Hutchley-----	40	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Depth to bedrock <20" Slope >15% Clay 27 to 40%	0.00 0.00 0.00 0.98
Nurkey-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.14 0.34	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Hard to reclaim Rock fragment content Slope >15%	0.00 0.00 0.00
95: Ike-----	40	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Calcium carbonates >40% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00 0.00
Rock outcrop-----	20	Not rated		Not rated		Not rated	
Jimbee-----	15	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.31	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.02	Poor source Slope >15% Calcium carbonates >40% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00 0.00
96: Inferno-----	40	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.63	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Clay >40% Rock fragment content Hard to reclaim	0.00 0.00 0.00 0.68
Grouseville-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Clay >40% Rock fragment content	0.00 0.00 0.72

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
97: Jimbee-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.31	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.02	Poor source Slope >15% Calcium carbonates >40% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00 0.00
Rock outcrop-----	20	Not rated		Not rated		Not rated	
Ike-----	15	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Calcium carbonates >40% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00 0.00
98: Justesen-----	50	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Good source Hard to reclaim Slope 8 to 12% Clay 27 to 40%	0.95 0.96 0.98
Drage-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.34	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope 8 to 12%	0.00 0.00 0.96
99: Kadletz-----	90	Fair source Thickest layer possible source Bottom layer possible source	0.19 0.62	Fair source Thickest layer possible source Bottom layer possible source	0.08 0.10	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.31
100: Kehar-----	80	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Clay 27 to 40% Slope 12 to 15% Rock fragment content	0.00 0.02 0.04 0.12
101: Kehar-----	55	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Clay 27 to 40% Rock fragment content	0.00 0.00 0.02 0.12

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
101: Kehar, eroded-----	20	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Clay 27 to 40% Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.02 0.12 0.95 0.99
102: Ketchum-----	80	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer possible source Thickest layer possible source	0.03 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
103: Ketchum, cold-----	70	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer possible source Thickest layer possible source	0.03 0.04	Poor source Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
Ketchum-----	15	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer possible source Thickest layer possible source	0.03 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
104: Klug-----	85	Poor source Thickest layer possible source Bottom layer possible source	0.06 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope 12 to 15%	0.00 0.00 0.16
105: Klug-----	30	Poor source Thickest layer possible source Bottom layer possible source	0.06 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Gaciba-----	25	Fair source Thickest layer possible source Bottom layer possible source	0.11 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00
Dacont-----	20	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.12	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
106: Klug-----	60	Poor source Thickest layer possible source Bottom layer possible source	0.06 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Povey-----	25	Fair source Thickest layer possible source Bottom layer possible source	0.12 0.19	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
107: Klug-----	55	Poor source Thickest layer possible source Bottom layer possible source	0.06 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Povey-----	25	Fair source Thickest layer possible source Bottom layer possible source	0.12 0.19	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
108: Klug-----	50	Poor source Thickest layer possible source Bottom layer possible source	0.06 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Zeebar-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
109: Lacrol-----	65	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Clay >40% Wetness <1' depth Rock fragment content EC 4 to 8 mmhos Hard to reclaim	0.00 0.00 0.00 0.28 0.88 0.88
Friedman-----	20	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay 27 to 40%	0.00 0.00 0.00 0.50

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
110: Lag-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.29	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
111: Lag-----	75	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.29	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
112: Lag-----	70	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.29	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Klug-----	15	Poor source Thickest layer possible source Bottom layer possible source	0.06 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
113: Langer-----	75	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.10	Poor source Hard to reclaim Rock fragment content Slope >15% Sand fractions 75-85%	0.00 0.00 0.00 0.22
114: Leadore-----	90	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
115: Leatherman-----	65	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.11	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content	0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
115: Arbus-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.62	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.11	Poor source Calcium carbonates >40% Sand fractions >85% Hard to reclaim Rock fragment content SAR >13	0.00 0.00 0.00 0.00 0.00
116: Leatherman-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.11	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content	0.00 0.00 0.00
Blue dome-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.11	Poor source Calcium carbonates >40% Depth to pan 20 to 40" Rock fragment content	0.00 0.03 0.03
117: Lemco-----	65	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Clay >40% Rock fragment content Hard to reclaim	0.00 0.00 0.00 0.50
Friedman-----	25	Fair source Thickest layer possible source Bottom layer possible source	0.19 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay 27 to 40%	0.00 0.00 0.00 0.50
118: Lemhi-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.20	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Wetness from 1 to 3'	0.00 0.00 0.00 0.04
Copperbasin-----	20	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Wetness from 1 to 3'	0.00 0.00 0.00 0.91

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
118: Lilylake-----	15	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Sand fractions >85% Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
119: Lemroi-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.50	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Hard to reclaim Rock fragment content Wetness from 1 to 3' Sand fractions 75-85%	0.00 0.00 0.00 0.03
Leecreek-----	40	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.31	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.10	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Wetness from 1 to 3' Calcium carbonates 15-40%	0.00 0.00 0.02 0.04 0.46
120: Lemroi-----	40	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.50	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Hard to reclaim Rock fragment content Wetness from 1 to 3' Sand fractions 75-85%	0.00 0.00 0.00 0.03
Leecreek-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.31	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.10	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Wetness from 1 to 3' Calcium carbonates 15-40%	0.00 0.00 0.02 0.04 0.46
Grandjean-----	20	Fair source Bottom layer possible source Thickest layer possible source	0.38 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.54	Poor source Wetness <1' depth Hard to reclaim Rock fragment content OM >30%	0.00 0.00 0.00 0.00
121: Lesbut-----	85	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
122: Lilylake-----	50	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Sand fractions >85% Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Grandjean-----	25	Fair source Bottom layer possible source Thickest layer possible source	0.38 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.54	Poor source Wetness <1' depth Hard to reclaim Rock fragment content OM >30%	0.00 0.00 0.00 0.00
123: Mahaffey-----	40	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Wetness from 1 to 3'	0.00 0.98
Copperbasin-----	20	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Wetness from 1 to 3'	0.00 0.00 0.00 0.91
Wiskisprings-----	20	Good source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.75	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Wetness <1' depth	0.00
124: Meegernot-----	75	Good source Thickest layer possible source Bottom layer possible source	0.31 0.75	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.12	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
125: Meegero-----	60	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates >40%	0.00 0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
125: Zeale-----	25	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Slope >15% Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
126: Millhi-----	90	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Wetness <1' depth SAR >13 EC >8 mmhos	0.00 0.00 0.00 0.00
127: Millhi-----	85	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth SAR >13 EC >8 mmhos Clay >40% Rock fragment content Slope 8 to 12%	0.00 0.00 0.00 0.00 0.28 0.84
128: Millhi-----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth SAR >13 EC >8 mmhos Clay >40% Slope >15% Rock fragment content	0.00 0.00 0.00 0.00 0.00 0.28
Millhi, eroded----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Wetness <1' depth SAR >13 EC >8 mmhos Clay >40% Rock fragment content	0.00 0.00 0.00 0.00 0.00 0.28

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
129: Millhi-----	50	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth SAR >13 EC >8 mmhos Clay >40% Slope >15% Rock fragment content	0.00 0.00 0.00 0.00 0.00 0.28
Badland-----	30	Not rated		Not rated		Not rated	
130: Millhi-----	65	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Wetness <1' depth SAR >13 EC >8 mmhos Clay >40% Rock fragment content	0.00 0.00 0.00 0.00 0.00 0.28
Lacrol-----	25	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Clay >40% Wetness <1' depth Rock fragment content EC 4 to 8 mmhos Hard to reclaim	0.00 0.00 0.00 0.28 0.88 0.88
131: Misfire-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.14	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.02	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Pattee-----	25	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim SAR 4 to 13	0.00 0.00 0.78
Dawtonia-----	20	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.97

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
132: Mitring-----	50	Fair source Thickest layer possible source Bottom layer possible source	0.30 0.62	Poor source Bottom layer possible source Thickest layer possible source	0.04 0.04	Poor source Slope >15% Rock fragment content EC 4 to 8 mmhos Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.50 0.52 0.97
Holinrock-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.12 0.43	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock 20 to 40" Calcium carbonates 15-40%	0.00 0.00 0.48 0.80
133: Mogg-----	55	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20" Calcium carbonates 15-40%	0.00 0.00 0.00 0.92
Dawtonia-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
134: Mooretown-----	45	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair source Hard to reclaim Wetness from 1 to 3'	0.18 0.76
Blackfoot-----	25	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Good source Wetness from 1 to 3'	0.76
Borah-----	20	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.08	Poor source Hard to reclaim Rock fragment content Wetness from 1 to 3' Sand fractions 75-85%	0.00 0.00 0.14 0.19

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
135: Mooretown-----	55	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.31	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Hard to reclaim Rock fragment content	0.00 0.97
Borco-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Good source Thickest layer not a source Bottom layer possible source	0.00 0.75	Poor source Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00
136: Morphey-----	80	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Wetness from 1 to 3'	0.00 0.04
137: Morphey-----	80	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Wetness from 1 to 3'	0.00 0.04
138: Mountainboy-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.12	Poor source Depth to pan <20" Rock fragment content Calcium carbonates >40%	0.00 0.00 0.00
139: Mountainboy-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.12	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content	0.00 0.00 0.00
140: Nicholia-----	65	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.10	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content	0.00 0.00 0.50
Goosebury-----	20	Fair source Thickest layer possible source Bottom layer possible source	0.12 0.49	Fair source Thickest layer possible source Bottom layer possible source	0.03 0.11	Poor source Hard to reclaim Rock fragment content Slope >15% Calcium carbonates 15-40%	0.00 0.00 0.00 0.46

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
141: Nielsen-----	55	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00
Gaciba-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.11 0.19	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00
142: Nitchly-----	60	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Calcium carbonates >40% Hard to reclaim Rock fragment content Clay 27 to 40%	0.00 0.00 0.00 0.98
Skibo-----	15	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Rock outcrop-----	15	Not rated		Not rated		Not rated	
143: Nurkey-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.34	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
Zeebar-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Hutchley-----	15	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20" Clay 27 to 40%	0.00 0.00 0.00 0.98

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
144: Nurkey-----	50	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Rock fragment content Slope >15% Hard to reclaim Calcium carbonates 15-40%	0.00 0.00 0.02 0.68
Dacont-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope >15% Calcium carbonates 15-40%	0.00 0.00 0.00 0.80
145: Nurkey-----	50	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.34	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Dacont-----	25	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
146: Nurkey-----	50	Fair source Thickest layer possible source Bottom layer possible source	0.14 0.34	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Dawtonia-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
147: Oxhead-----	90	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Good source Calcium carbonates 15-40%	0.97
148: Packham-----	75	Fair source Bottom layer possible source Thickest layer possible source	0.25 0.25	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.43	Poor source Hard to reclaim Rock fragment content	0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
149: Packham-----	60	Fair source Bottom layer possible source Thickest layer possible source	0.25 0.25	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.43	Poor source Hard to reclaim Rock fragment content	0.00 0.00
Perreau-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim SAR 4 to 13 Slope 8 to 12% Rock fragment content	0.00 0.60 0.84 0.97
150: Packmo-----	65	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.20	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.00
Leadore-----	20	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
151: Packmo-----	50	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.20	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.00
Whiteknob-----	30	Fair source Bottom layer possible source Thickest layer possible source	0.29 0.29	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.29	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
152: Pahsimeroi-----	90	Fair source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.10	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.06
153: Pahsimeroi-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.10	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope >15% Sand fractions 75-85%	0.00 0.00 0.00 0.06

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
154: Pahsimeroi-----	85	Fair source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.10	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00
155: Paint-----	65	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.56	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.12	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos	0.00 0.00 0.00 0.22 0.88
Paint, cold-----	25	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.56	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.12	Poor source Depth to pan <20" Rock fragment content Calcium carbonates >40%	0.00 0.00 0.00
156: Paint-----	65	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.56	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.12	Poor source Depth to pan <20" Rock fragment content Calcium carbonates >40%	0.00 0.00 0.00
Bluedome-----	25	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.11	Poor source Calcium carbonates >40% Rock fragment content Depth to pan 20 to 40"	0.00 0.03 0.90
157: Paint-----	75	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.56	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.12	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos	0.00 0.00 0.00 0.22 0.88
Whitecloud-----	25	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.62	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.58	Poor source Calcium carbonates >40% Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
158:							
Parkay-----	45	Fair source		Poor source		Poor source	
		Thickest layer not a source due to fines or thin layer	0.00	Bottom layer not a source	0.00	Slope >15%	0.00
		Bottom layer possible source	0.34	Thickest layer not a source	0.00	Hard to reclaim	0.00
						Rock fragment content	0.00
Donkehill-----	35	Fair source		Poor source		Poor source	
		Thickest layer not a source due to fines or thin layer	0.00	Bottom layer not a source	0.00	Slope >15%	0.00
		Bottom layer possible source	0.25	Thickest layer not a source	0.00	Rock fragment content	0.00
						Depth to bedrock <20"	0.00
159:							
Parkay-----	70	Poor source		Poor source		Poor source	
		Bottom layer not a source	0.00	Bottom layer not a source	0.00	Hard to reclaim	0.00
		Thickest layer not a source due to fines or thin layer	0.00	Thickest layer not a source	0.00	Rock fragment content	0.00
						Slope 8 to 12%	0.96
Nurkey-----	15	Fair source		Poor source		Poor source	
		Thickest layer not a source due to fines or thin layer	0.00	Thickest layer not a source	0.00	Hard to reclaim	0.00
		Bottom layer possible source	0.34	Bottom layer possible source	0.04	Rock fragment content	0.00
						Slope 8 to 12%	0.96
160:							
Parkay-----	45	Fair source		Poor source		Poor source	
		Thickest layer not a source due to fines or thin layer	0.00	Bottom layer not a source	0.00	Slope >15%	0.00
		Bottom layer possible source	0.25	Thickest layer not a source	0.00	Hard to reclaim	0.00
						Rock fragment content	0.00
Nurkey-----	35	Fair source		Poor source		Poor source	
		Thickest layer not a source due to fines or thin layer	0.00	Thickest layer not a source	0.00	Slope >15%	0.00
		Bottom layer possible source	0.34	Bottom layer possible source	0.04	Hard to reclaim	0.00
						Rock fragment content	0.00
161:							
Parkay-----	45	Fair source		Poor source		Poor source	
		Bottom layer possible source	0.25	Bottom layer not a source	0.00	Hard to reclaim	0.00
		Thickest layer possible source	0.44	Thickest layer not a source	0.00	Rock fragment content	0.00
						Slope 12 to 15%	0.16
Zeebar-----	45	Fair source		Poor source		Poor source	
		Thickest layer possible source	0.19	Bottom layer not a source	0.00	Hard to reclaim	0.00
		Bottom layer possible source	0.20	Thickest layer not a source	0.00	Rock fragment content	0.00
						Slope 12 to 15%	0.16

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
162: Parkay-----	55	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Friedman-----	30	Fair source Thickest layer possible source Bottom layer possible source	0.19 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay 27 to 40%	0.00 0.00 0.00 0.50
163: Pattee-----	50	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Good source SAR 4 to 13	0.78
Perreau-----	25	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.40 0.50 0.92
164: Pattee-----	45	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim SAR 4 to 13	0.00 0.78
Perreau-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.40 0.50 0.92
165: Pedoli-----	50	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.43	Fair source Thickest layer possible source Bottom layer possible source	0.03 0.10	Poor source Hard to reclaim Rock fragment content Clay 27 to 40%	0.00 0.00 0.98

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
165: Dawtonia-----	35	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.97
166: Pedoli-----	50	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.43	Fair source Thickest layer possible source Bottom layer possible source	0.03 0.10	Poor source Hard to reclaim Rock fragment content Clay 27 to 40%	0.00 0.00 0.98
Whiteknob-----	30	Fair source Bottom layer possible source Thickest layer possible source	0.29 0.29	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.29	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
167: Penagul-----	45	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20" Clay >40%	0.00 0.00 0.00 0.00
Rosebriar-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.29	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Depth to bedrock <20" Clay >40%	0.00 0.00 0.00 0.00
168: Perreau-----	75	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.40 0.50 0.92
169: Perreau-----	75	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.40 0.50 0.92

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
170: Perreau-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope 12 to 15% SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.04 0.40 0.50 0.92
171: Perreau-----	50	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.40 0.50 0.92
Dawtonia-----	40	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.97
172: Perreau-----	50	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.00 0.40 0.50 0.92
Dawtonia-----	40	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.50	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
173: Perreau-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.00 0.40 0.50 0.92

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
173: Pattee-----	30	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim SAR 4 to 13	0.00 0.00 0.78
174: Pits, gravel-----	100	Not rated		Not rated		Not rated	
175: Pits, mine-----	100	Not rated		Not rated		Not rated	
176: Povey-----	85	Fair source Thickest layer possible source Bottom layer possible source	0.12 0.19	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
177: Povey-----	55	Fair source Thickest layer possible source Bottom layer possible source	0.12 0.19	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Klug-----	40	Poor source Thickest layer possible source Bottom layer possible source	0.06 0.06	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
178: Reck-----	40	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Rock fragment content Hard to reclaim Clay >40% Slope >15%	0.00 0.00 0.00 0.00
Threedot-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Hard to reclaim Rock fragment content Slope >15% Wetness from 1 to 3'	0.00 0.00 0.00 0.00 0.12

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
179: Redfish-----	40	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.49	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.49	Poor source Sand fractions >85% Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Fezip-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.49	Fair source Bottom layer possible source Thickest layer possible source	0.10 0.11	Poor source Wetness <1' depth Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.00 0.20
Lilylake-----	20	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Sand fractions >85% Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
180: Resoot-----	45	Fair source Bottom layer possible source Thickest layer possible source	0.19 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Clay >40% Slope >15%	0.00 0.00 0.00 0.00
Friedman-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Hard to reclaim Rock fragment content Slope >15%	0.00 0.00 0.00 0.00
181: Resoot-----	55	Fair source Bottom layer possible source Thickest layer possible source	0.19 0.25	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay >40%	0.00 0.00 0.00 0.00
Friedman-----	30	Fair source Thickest layer possible source Bottom layer possible source	0.19 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay 27 to 40%	0.00 0.00 0.00 0.50

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
182: Ringle-----	90	Fair source Thickest layer possible source Bottom layer possible source	0.19 0.69	Fair source Thickest layer possible source Bottom layer possible source	0.03 0.08	Poor source Calcium carbonates >40% Hard to reclaim Rock fragment content EC >8 mmhos Sand fractions 75-85%	0.00 0.00 0.00 0.00 0.22
183: Rock outcrop-----	50	Not rated		Not rated		Not rated	
Rubble land-----	50	Not rated		Not rated		Not rated	
184: Sanfelipe-----	60	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.44	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Hard to reclaim Rock fragment content Calcium carbonates >40% Slope 8 to 12%	0.00 0.00 0.00 0.84
Sanfelipe, moist---	30	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.44	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Hard to reclaim Rock fragment content Calcium carbonates >40% Slope 8 to 12%	0.00 0.00 0.00 0.84
185: Shenon-----	85	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.88 0.92
186: Shenon-----	85	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Slope 8 to 12% Hard to reclaim Calcium carbonates 15-40%	0.00 0.84 0.88 0.92
187: Shenon-----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.88 0.92

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
187: Perreau-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.40 0.50 0.92
188: Shenon-----	55	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Slope 12 to 15% Hard to reclaim Calcium carbonates 15-40%	0.00 0.37 0.88 0.92
Perreau-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.40 0.50 0.92
189: Simeroi-----	85	Fair source Thickest layer possible source Bottom layer possible source	0.38 0.57	Fair source Thickest layer possible source Bottom layer possible source	0.04 0.10	Poor source Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00
190: Simeroi-----	95	Fair source Thickest layer possible source Bottom layer possible source	0.38 0.57	Fair source Thickest layer possible source Bottom layer possible source	0.04 0.10	Poor source Calcium carbonates >40% Hard to reclaim Rock fragment content Slope 8 to 12%	0.00 0.00 0.00 0.84
191: Simeroi, cold-----	70	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.10	Poor source Hard to reclaim Rock fragment content Calcium carbonates >40%	0.00 0.00 0.00
Simeroi-----	20	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
192: Simeroi-----	50	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.38	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Calcium carbonates >40% Hard to reclaim Rock fragment content Slope 12 to 15%	0.00 0.00 0.00 0.16
Paint-----	25	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.56	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.12	Poor source Depth to pan <20" Rock fragment content Calcium carbonates >40% Slope 12 to 15%	0.00 0.00 0.00 0.16
Sanfelipe-----	15	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.44	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Hard to reclaim Rock fragment content Calcium carbonates >40% Slope 12 to 15%	0.00 0.00 0.00 0.16
193: Simeroi-----	80	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.38	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Whitecloud-----	15	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.62	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.58	Poor source Calcium carbonates >40% Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
194: Skibo-----	75	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
195: Smout-----	60	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.34	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.34	Poor source Bulk density >1.8 within 20" depth Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
195: Cowbone-----	25	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth	0.00
196: Smout-----	55	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.34	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.34	Poor source Bulk density >1.8 within 20" depth Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00 0.00
Yearian-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.31	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00
197: Snowslide-----	90	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content EC 4 to 8 mmhos SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.50 0.60 0.68
198: Snowslide-----	85	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content EC >8 mmhos SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.00 0.60 0.68
199: Snowslide-----	85	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content EC >8 mmhos SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.00 0.00 0.60 0.68

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
200: Snowslide-----	40	Fair source Thickest layer possible source Bottom layer possible source	0.38 0.57	Fair source Thickest layer possible source Bottom layer possible source	0.03 0.36	Poor source Hard to reclaim Rock fragment content Slope >15% Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
Badland-----	20	Not rated		Not rated		Not rated	
Perreau-----	20	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope >15% SAR 4 to 13 EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.00 0.40 0.50 0.92
201: Snowslide-----	60	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content EC >8 mmhos Slope >15% SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.00 0.00 0.60 0.68
Farvant-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Depth to bedrock <20" Slope >15% Calcium carbonates 15-40% EC 4 to 8 mmhos	0.00 0.00 0.00 0.46 0.50
202: Snowslide, south---	35	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope 12 to 15% EC 4 to 8 mmhos SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.16 0.50 0.60 0.68

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
202: Zer-----	30	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.08	Poor source Hard to reclaim Rock fragment content Slope >15% Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.00 0.30 0.80
Snowslide, north---	20	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content EC >8 mmhos Slope >15% SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.00 0.60 0.68
203: Soen-----	80	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Hard to reclaim Calcium carbonates 15-40%	0.00 0.50 0.92
204: Soen-----	40	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Rock fragment content Slope 12 to 15% Hard to reclaim Calcium carbonates 15-40%	0.00 0.37 0.50 0.92
Justesen-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair source Slope 12 to 15% Hard to reclaim Clay 27 to 40%	0.37 0.95 0.98
Howcan-----	15	Fair source Bottom layer not a source Thickest layer possible source	0.00 0.12	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Rock fragment content Hard to reclaim	0.00 0.00 0.00
205: Sparmo-----	95	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40% SAR 4 to 13	0.00 0.72 0.92 0.98

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
206: Sparmo-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40% SAR 4 to 13	0.00 0.72 0.92 0.98
Zer-----	40	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.08	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.30 0.80
207: Sparmo-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.19	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40% Slope 8 to 12% SAR 4 to 13	0.00 0.72 0.92 0.96 0.98
Zer-----	45	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.08	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Calcium carbonates 15-40% Slope 8 to 12%	0.00 0.00 0.30 0.80 0.96
208: Sprabat-----	80	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer possible source Thickest layer possible source	0.02 0.02	Poor source Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Hard to reclaim	0.00 0.40 0.50 0.68
209: Sprabat-----	65	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer possible source Thickest layer possible source	0.02 0.02	Poor source Rock fragment content SAR 4 to 13 EC 4 to 8 mmhos Hard to reclaim	0.00 0.40 0.50 0.68

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
209: Snowslide-----	25	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content EC 4 to 8 mmhos SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.50 0.60 0.68
210: Struggle-----	55	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Fair source Thickest layer possible source Bottom layer possible source	0.04 0.20	Poor source Hard to reclaim Rock fragment content Slope 8 to 12%	0.00 0.00 0.84
Struggle, very stonny-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Fair source Thickest layer possible source Bottom layer possible source	0.04 0.20	Poor source Slope >15% Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
211: Surrett-----	80	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.57	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Rock fragment content Depth to pan 20 to 40"	0.00 0.36
212: Surrett-----	45	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.57	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Rock fragment content Depth to pan 20 to 40"	0.00 0.54
Nurkey-----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Rock fragment content Hard to reclaim	0.00 0.02
213: Swahlen-----	65	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.14	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Hard to reclaim Rock fragment content	0.00 0.00
Packham-----	20	Fair source Bottom layer possible source Thickest layer possible source	0.25 0.25	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.43	Poor source Hard to reclaim Rock fragment content	0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
214: Swahlen-----	55	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.14	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Hard to reclaim Rock fragment content	0.00 0.00
Yearian-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.31	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00
215: Thosand-----	55	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.08	Poor source Wetness <1' depth Hard to reclaim	0.00 0.00
Chillybu-----	35	Fair source Bottom layer possible source Thickest layer possible source	0.19 0.70	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth Hard to reclaim Rock fragment content OM >30%	0.00 0.00 0.00 0.00
216: Thosand-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.08	Poor source Wetness <1' depth Hard to reclaim	0.00 0.00
San crane-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.38	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.09	Poor source Wetness <1' depth Hard to reclaim EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.50 0.80
217: Thosand-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.69	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.08	Poor source Wetness <1' depth Hard to reclaim	0.00 0.00
Wiskisprings-----	35	Good source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.75	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Wetness <1' depth	0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
218: Threedot-----	90	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Clay >40% Hard to reclaim Rock fragment content Slope >15% Wetness from 1 to 3'	0.00 0.00 0.00 0.00 0.12
219: Threedot-----	80	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope >15% Wetness from 1 to 3' Clay 27 to 40%	0.00 0.00 0.00 0.12 0.32
220: Threedot, dry-----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Wetness from 1 to 3' Clay 27 to 40%	0.00 0.00 0.00 0.12 0.32
Threedot-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Clay >40% Hard to reclaim Rock fragment content Wetness from 1 to 3'	0.00 0.00 0.00 0.00 0.12
221: Typic Cryaquepts---	80	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Fair source Rock fragment content Wetness from 1 to 3'	0.12 0.29
222: Ureal-----	40	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.14	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Slope >15% Rock fragment content Depth to bedrock <20"	0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
222: Zeebar-----	30	Fair source Thickest layer possible source Bottom layer possible source	0.20 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
Dacont-----	15	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content	0.00 0.00 0.00
223: Venum-----	50	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay >40%	0.00 0.00 0.00 0.00
Cronks-----	40	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay >40%	0.00 0.00 0.00 0.00
224: Venum-----	60	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay >40%	0.00 0.00 0.00 0.00
Rock outcrop-----	20	Not rated		Not rated		Not rated	
225: Venum-----	55	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.20	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Clay >40%	0.00 0.00 0.00 0.00
Custco-----	30	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.38	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.92

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
226: Whitecloud-----	85	Fair source Thickest layer possible source Bottom layer possible source	0.38 0.62	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.58	Poor source Calcium carbonates >40% Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
227: Whitecloud-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.62	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.58	Poor source Calcium carbonates >40% Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
228: Whitecloud-----	40	Fair source Thickest layer possible source Bottom layer possible source	0.38 0.62	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.58	Poor source Calcium carbonates >40% Sand fractions >85% Hard to reclaim Rock fragment content Slope 8 to 12%	0.00 0.00 0.00 0.00 0.84
Sanfelipe-----	25	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.44	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Hard to reclaim Rock fragment content Calcium carbonates >40% Slope 8 to 12%	0.00 0.00 0.00 0.84
Fandow-----	20	Fair source Thickest layer possible source Bottom layer possible source	0.01 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content Slope 8 to 12%	0.00 0.00 0.00 0.84
229: Whitecloud-----	65	Fair source Thickest layer possible source Bottom layer possible source	0.38 0.62	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.58	Poor source Calcium carbonates >40% Sand fractions >85% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Simeroi-----	25	Fair source Thickest layer possible source Bottom layer possible source	0.38 0.57	Fair source Thickest layer possible source Bottom layer possible source	0.04 0.10	Poor source Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
230: Whiteknob-----	90	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.29	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.29	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
231: Whiteknob-----	60	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.29	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.29	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
Leadore-----	30	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.00 0.97
232: Whiteknob-----	60	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.29	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.29	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
Zer-----	20	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.08	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.30 0.80
233: Wiggleton-----	85	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.49	Fair source Thickest layer possible source Bottom layer possible source	0.05 0.10	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.36
234: Wiggleton-----	45	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85%	0.00 0.00 0.27

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
234: Copperbasin-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Wetness from 1 to 3'	0.00 0.00 0.02 0.91
235: Wimpey-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.14	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.14	Poor source Hard to reclaim Clay >40% Wetness from 1 to 3' Rock fragment content	0.00 0.00 0.76 0.97
Zeph-----	30	Fair source Thickest layer possible source Bottom layer possible source	0.29 0.29	Fair source Bottom layer possible source Thickest layer possible source	0.29 0.29	Poor source Sand fractions >85% Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Ajax-----	20	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth Clay >40%	0.00 0.00
236: Windcoat-----	90	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.56	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content EC 4 to 8 mmhos SAR 4 to 13	0.00 0.00 0.00 0.50 0.60
237: Windcoat-----	45	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.56	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content Slope 12 to 15% EC 4 to 8 mmhos SAR 4 to 13	0.00 0.00 0.00 0.16 0.50 0.60

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
237: Fandow-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.57	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Depth to pan <20" Calcium carbonates >40% Rock fragment content Slope 12 to 15%	0.00 0.00 0.00 0.16
238: Wiskisprings-----	45	Good source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.75	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Wetness <1' depth	0.00
Biglost-----	35	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.57	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Hard to reclaim	0.00
239: Wiskisprings-----	40	Good source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.75	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.13	Poor source Wetness <1' depth	0.00
Biglost-----	30	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.57	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Hard to reclaim	0.00
Copperbasin-----	20	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Wetness from 1 to 3'	0.00 0.00 0.02 0.91
240: Xeric Torrifluvents	75	Poor source Thickest layer not a source due to fines or thin layer Bottom layer not a source	0.00 0.00	Poor source Thickest layer not a source Bottom layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content	0.00 0.28
241: Yearian-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.31	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
242: Yearian-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.31	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth Hard to reclaim Rock fragment content	0.00 0.00 0.00
243: Zeale-----	75	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Calcium carbonates >40% Hard to reclaim Rock fragment content Slope 12 to 15%	0.00 0.00 0.00 0.37
Meegero-----	15	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Calcium carbonates >40% Slope 12 to 15%	0.00 0.00 0.00 0.37
244: Zeale-----	55	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Slope >15% Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Meegero-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates >40%	0.00 0.00 0.00 0.00
245: Zeale-----	45	Poor source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.06	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.03	Poor source Slope >15% Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00
Zeelnot-----	30	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.08

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
246:							
Zeebar-----	35	Fair source		Poor source		Poor source	
		Thickest layer not a source due to fines or thin layer	0.00	Bottom layer not a source	0.00	Slope >15%	0.00
		Bottom layer possible source	0.20	Thickest layer not a source	0.00	Hard to reclaim	0.00
						Rock fragment content	0.00
Nielsen-----	30	Fair source		Poor source		Poor source	
		Thickest layer not a source due to fines or thin layer	0.00	Bottom layer not a source	0.00	Slope >15%	0.00
		Bottom layer possible source	0.25	Thickest layer not a source	0.00	Rock fragment content	0.00
						Depth to bedrock <20"	0.00
Povey-----	20	Fair source		Poor source		Poor source	
		Thickest layer possible source	0.12	Thickest layer not a source	0.00	Slope >15%	0.00
		Bottom layer possible source	0.19	Bottom layer possible source	0.04	Hard to reclaim	0.00
						Rock fragment content	0.00
247:							
Zeebar-----	55	Fair source		Poor source		Poor source	
		Thickest layer possible source	0.20	Bottom layer not a source	0.00	Slope >15%	0.00
		Bottom layer possible source	0.20	Thickest layer not a source	0.00	Hard to reclaim	0.00
						Rock fragment content	0.00
Parkay-----	30	Fair source		Poor source		Poor source	
		Thickest layer not a source due to fines or thin layer	0.00	Bottom layer not a source	0.00	Slope >15%	0.00
		Bottom layer possible source	0.34	Thickest layer not a source	0.00	Hard to reclaim	0.00
						Rock fragment content	0.00
248:							
Zeebar-----	45	Fair source		Poor source		Poor source	
		Thickest layer not a source due to fines or thin layer	0.00	Bottom layer not a source	0.00	Slope >15%	0.00
		Bottom layer possible source	0.20	Thickest layer not a source	0.00	Hard to reclaim	0.00
						Rock fragment content	0.00
Resoot-----	35	Fair source		Poor source		Poor source	
		Bottom layer possible source	0.19	Bottom layer not a source	0.00	Slope >15%	0.00
		Thickest layer possible source	0.25	Thickest layer not a source	0.00	Hard to reclaim	0.00
						Rock fragment content	0.00
						Clay >40%	0.00
249:							
Zeegee-----	45	Fair source		Poor source		Poor source	
		Thickest layer not a source due to fines or thin layer	0.00	Bottom layer not a source	0.00	Wetness <1' depth	0.00
		Bottom layer possible source	0.62	Thickest layer not a source	0.00	Hard to reclaim	0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
249: Ajax-----	35	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Wetness <1' depth Clay >40%	0.00 0.00
250: Zeelnot-----	85	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.08
251: Zeelnot-----	90	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Calcium carbonates >40% Hard to reclaim Rock fragment content Clay 27 to 40%	0.00 0.00 0.00 0.82
252: Zeelnot-----	40	Poor source Bottom layer not a source Thickest layer not a source due to fines or thin layer	0.00 0.00	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.08
Meegernot-----	30	Good source Thickest layer possible source Bottom layer possible source	0.31 0.75	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.12	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
Adek-----	15	Fair source Bottom layer possible source Thickest layer possible source	0.14 0.14	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Calcium carbonates >40% Hard to reclaim Rock fragment content Slope >15%	0.00 0.00 0.00 0.00
253: Zer-----	95	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.08	Poor source Slope >15% Hard to reclaim Rock fragment content Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.00 0.30 0.80

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
254: Zer-----	80	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Bottom layer possible source Thickest layer possible source	0.02 0.04	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.08
255: Zer-----	85	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.62	Poor source Bottom layer not a source Thickest layer possible source	0.00 0.04	Poor source Hard to reclaim Rock fragment content EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.50 0.68
256: Zer-----	85	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.25	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.02	Poor source Hard to reclaim Rock fragment content Calcium carbonates 15-40% Slope 8 to 12%	0.00 0.00 0.92 0.96
257: Zer-----	80	Fair source Thickest layer possible source Bottom layer possible source	0.06 0.62	Poor source Bottom layer not a source Thickest layer possible source	0.00 0.04	Poor source Hard to reclaim Rock fragment content EC 4 to 8 mmhos Calcium carbonates 15-40%	0.00 0.00 0.50 0.68
258: Zer-----	80	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.49	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.49	Poor source Slope >15% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.46
259: Zer-----	75	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.08	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.30 0.80

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
259: Snowslide-----	20	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content EC >8 mmhos SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.00 0.60 0.68
260: Zer-----	70	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.29	Fair source Thickest layer possible source Bottom layer possible source	0.02 0.08	Poor source Hard to reclaim Rock fragment content Slope >15% Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.00 0.30 0.80
Snowslide-----	15	Fair source Thickest layer possible source Bottom layer possible source	0.31 0.56	Poor source Bottom layer not a source Thickest layer not a source	0.00 0.00	Poor source Hard to reclaim Rock fragment content Slope >15% EC 4 to 8 mmhos SAR 4 to 13 Calcium carbonates 15-40%	0.00 0.00 0.00 0.50 0.60 0.68
261: Zer-----	70	Fair source Thickest layer not a source due to fines or thin layer Bottom layer possible source	0.00 0.29	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.08	Poor source Hard to reclaim Rock fragment content Sand fractions 75-85% Calcium carbonates 15-40%	0.00 0.00 0.30 0.80
Whiteknob-----	20	Fair source Bottom layer possible source Thickest layer possible source	0.29 0.29	Fair source Thickest layer not a source Bottom layer possible source	0.00 0.29	Poor source Sand fractions >85% Hard to reclaim Rock fragment content Calcium carbonates 15-40%	0.00 0.00 0.00 0.68
262: Simeroi-----	85	Fair source Thickest layer possible source Bottom layer possible source	0.25 0.56	Poor source Thickest layer not a source Bottom layer possible source	0.00 0.04	Poor source Slope >15% Calcium carbonates >40% Hard to reclaim Rock fragment content	0.00 0.00 0.00 0.00

Table 10.--Construction Materials--Continued

Map symbol and soil name	Pct of map unit	Potential source of gravel		Potential source of sand		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
263: Water-----	100	Not rated		Not rated		Not rated	

The interpretation for potential source of gravel evaluates coarse fragments greater than 0.2 inch in diameter in the bottom layer or thickest layer of the soil.

The interpretation for potential source of sand evaluates the amount of sand and fine gravel in the thickest layer or bottom layer of the soil. Organic soil layers that have a Unified engineering class for peat (PT) are also evaluated.

The interpretation for potential source of topsoil evaluates the following soil properties at various depths: Percent calcium carbonates, percent clay, soil bulk density, percent sand, soil wetness, coarse fragments 0.2 to 3.0 inches in diameter, fragments greater than 3 inches in diameter, organic matter content (OM), sodium content expressed as sodium adsorption ratio (SAR), salinity expressed as millimhos per centimeter of electrical conductivity (EC), depth to bedrock, slope, and soil pH.

Table 11.--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	
		Rating class and limiting features	Value	Rating class and limiting features	Value
1: Alpinepeak-----	75	Very limited Seepage	1.00	Somewhat limited Seepage Depth to saturated zone	0.54 0.43
2: Aguents-----	75	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage Content of large stones	1.00 0.38 0.11
Riverwash-----	20	Not rated		Not rated	
3: Arbus-----	85	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.62
4: Arco-----	90	Somewhat limited Seepage	0.54	Somewhat limited Depth to saturated zone Piping	0.86 0.73
5: Badland-----	50	Not rated		Not rated	
Millhi-----	35	Somewhat limited Slope	0.50	Very limited Depth to saturated zone Piping Salinity	1.00 1.00 0.50
6: Bartonflat-----	80	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.38 0.11
7: Bartonflat-----	75	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.38 0.20
8: Bartonhill-----	55	Very limited Seepage	1.00	Somewhat limited Seepage	0.81
Whitecloud-----	30	Very limited Seepage	1.00	Somewhat limited Seepage	0.62

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
9: Bayhorse, north-----	40	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.19
Bayhorse, south-----	35	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.06
10: Bayhorse-----	45	Very limited Depth to bedrock Slope	1.00 0.41	Very limited Thin layer Seepage	1.00 0.06
Dawtonia-----	40	Somewhat limited Seepage Slope	0.70 0.41	Somewhat limited Seepage	0.31
11: Bigflat-----	60	Somewhat limited Seepage	0.04	Somewhat limited Seepage Piping	0.19 0.05
Dacont-----	20	Somewhat limited Seepage	0.70	Somewhat limited Seepage Content of large stones	0.69 0.19
12: Biglost-----	50	Very limited Seepage	1.00	Somewhat limited Seepage	0.69
Copperbasin-----	30	Very limited Seepage	1.00	Very limited Content of large stones Depth to saturated zone Seepage	1.00 0.84 0.61
13: Bigrant, very poorly drained-----	45	Somewhat limited Seepage	0.04	Very limited Depth to saturated zone	1.00
Bigrant, poorly drained-----	45	Somewhat limited Seepage	0.04	Very limited Depth to saturated zone Piping	1.00 0.30
14: Bigrant-----	35	Somewhat limited Seepage	0.04	Very limited Depth to saturated zone Piping	1.00 0.90
Thosand-----	30	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.69

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
14: Dickeypeak-----	20	Very limited Seepage	1.00	Very limited Piping Depth to saturated zone Salinity Seepage	1.00 0.84 0.50 0.19
15: Blackfoot-----	75	Very limited Seepage	1.00	Very limited Piping	1.00
16: Blackfoot-----	45	Very limited Seepage	1.00	Very limited Piping	1.00
Borco-----	40	Very limited Seepage	1.00	Somewhat limited Seepage	0.75
17: Bluedome-----	80	Very limited Seepage Depth to cemented pan	1.00 0.74	Very limited Piping Thin layer Seepage	1.00 0.74 0.38
18: Bock-----	55	Somewhat limited Seepage	0.70	Very limited Piping	1.00
Breitenbach-----	25	Very limited Seepage	1.00	Somewhat limited Seepage	0.38
19: Bock-----	55	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.38
Bromaglin-----	35	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
20: Bockston-----	75	Very limited Seepage	1.00	Very limited Piping	1.00
21: Brabas-----	65	Very limited Seepage Slope	1.00 0.10	Somewhat limited Seepage	0.56
Heathcoat-----	25	Somewhat limited Slope	0.10	Not limited	
22: Breitenbach-----	75	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
23: Breitenbach-----	75	Very limited Seepage	1.00	Somewhat limited Seepage	0.62

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
24: Breitenbach-----	75	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
25: Bunting-----	95	Very limited Seepage	1.00	Somewhat limited Seepage	0.25
26: Bunting-----	95	Very limited Seepage	1.00	Somewhat limited Seepage	0.25
27: Bunting-----	70	Very limited Seepage	1.00	Somewhat limited Seepage	0.25
Moffspring-----	25	Very limited Seepage	1.00	Not limited	
28: Bursteadt-----	50	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Seepage	0.86 0.04
Tohobit-----	35	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone	0.95
29: Busterback-----	60	Very limited Seepage	1.00	Somewhat limited Seepage	0.54
Wiggleton-----	20	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
30: Calcids-----	35	Very limited Seepage	1.00	Somewhat limited Content of large stones	0.67
		Slope	0.82	Seepage	0.62
Badland-----	25	Somewhat limited Slope	0.21	Not rated	
Xerolls-----	20	Somewhat limited Slope	0.82	Somewhat limited Piping	0.06
31: Calcids-----	45	Very limited Slope Seepage	1.00 1.00	Somewhat limited Content of large stones Seepage	0.83 0.62
Rubble land-----	25	Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated	

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
32: Castlepeak-----	50	Very limited Seepage	1.00	Somewhat limited Content of large stones Seepage	0.93 0.62
Yankeefork-----	40	Very limited Seepage	1.00	Somewhat limited Seepage	0.54
33: Chamberlain-----	80	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
34: Coalkiln-----	70	Very limited Seepage Slope	1.00 1.00	Somewhat limited Seepage	0.44
Zeelnot-----	20	Very limited Slope Seepage	1.00 0.70	Somewhat limited Piping Seepage	0.40 0.06
35: Copperbasin-----	55	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Content of large stones Seepage	0.84 0.70 0.61
Redfish-----	20	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.54
36: Copperbasin-----	45	Very limited Seepage	1.00	Very limited Content of large stones Depth to saturated zone Seepage	1.00 0.84 0.61
Redfish-----	35	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage Content of large stones	1.00 0.54 0.02
37: Cowbone-----	45	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.38
Tohobit-----	35	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone	0.95

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
38: Cronks-----	55	Somewhat limited Slope Seepage	0.72 0.54	Somewhat limited Content of large stones Piping	0.71 0.27
Challis-----	35	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.19
39: Cronks-----	60	Somewhat limited Seepage Slope	0.54 0.01	Somewhat limited Content of large stones	0.87
Venum-----	30	Somewhat limited Seepage Slope	0.04 0.01	Somewhat limited Seepage Content of large stones	0.44 0.37
40: Cryolls-----	65	Very limited Seepage Slope	1.00 0.72	Somewhat limited Content of large stones Seepage	0.76 0.19
Rubble land-----	20	Not rated		Not rated	
41: Cryolls-----	50	Very limited Slope Seepage Depth to bedrock	1.00 1.00 0.77	Somewhat limited Content of large stones Thin layer Seepage	0.95 0.77 0.16
Rubble land-----	20	Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated	
42: Cryepts-----	50	Very limited Seepage Slope	1.00 1.00	Somewhat limited Content of large stones Seepage	0.66 0.62
Rubble land-----	20	Not rated		Not rated	
Rock outcrop-----	15	Not rated		Not rated	
43: Custco-----	80	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.38
44: Dacont-----	50	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Content of large stones Seepage	0.72 0.69

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
44: Custco-----	35	Very limited Seepage Slope	1.00 0.72	Somewhat limited Seepage	0.38
45: Dacont-----	35	Somewhat limited Seepage Slope	0.70 0.21	Somewhat limited Seepage	0.69
Resoot-----	30	Somewhat limited Slope	0.21	Somewhat limited Seepage	0.19
Nielsen-----	25	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Thin layer Seepage	1.00 0.25
46: Dacont-----	40	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.31
Zeebar-----	40	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.56
47: Darlington-----	55	Very limited Seepage	1.00	Somewhat limited Seepage	0.69
Lesbut-----	25	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.38 0.09
48: Dawtonia-----	80	Somewhat limited Seepage	0.70	Somewhat limited Seepage	0.50
49: Dawtonia-----	75	Somewhat limited Seepage Slope	0.70 0.03	Somewhat limited Seepage	0.50
Dawtonia, cold-----	20	Somewhat limited Seepage	0.70	Somewhat limited Seepage	0.50
50: Dawtonia, cold-----	85	Somewhat limited Seepage	0.70	Somewhat limited Seepage	0.50
Dawtonia-----	15	Somewhat limited Seepage	0.70	Somewhat limited Seepage	0.50
51: Dawtonia-----	45	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.50

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
51: Frailton-----	35	Somewhat limited Depth to bedrock Slope	0.80 0.72	Very limited Thin layer Content of large stones	1.00 1.00
52: Dawtonia-----	35	Somewhat limited Seepage Slope	0.70 0.12	Somewhat limited Seepage	0.50
Kehar-----	30	Somewhat limited Slope Seepage	0.03 0.02	Not limited	
Soen-----	20	Somewhat limited Seepage Slope	0.04 0.03	Not limited	
53: Dawtonia-----	60	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.31
Rock outcrop-----	20	Not rated		Not rated	
54: Dawtonia-----	50	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.50
Custco-----	35	Very limited Seepage Slope	1.00 0.72	Somewhat limited Seepage	0.38
55: Dawtonia-----	50	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.50
Dacont-----	30	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.69
56: Derwell-----	65	Very limited Seepage	1.00	Somewhat limited Seepage	0.82
Whiteknob-----	15	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
57: Derwell-----	30	Very limited Seepage	1.00	Somewhat limited Seepage	0.82
Zer-----	25	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.44 0.07

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
57: Packmo-----	20	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage Content of large stones	0.56 0.01
58: Dickeypeak-----	60	Very limited Seepage	1.00	Very limited Piping Depth to saturated zone Salinity Seepage	1.00 0.84 0.50 0.19
Bigrant-----	25	Somewhat limited Seepage	0.04	Very limited Depth to saturated zone Piping	1.00 0.90
59: Donkehill-----	85	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.88
60: Donkehill-----	45	Very limited Depth to bedrock Slope	1.00 0.45	Very limited Thin layer Seepage	1.00 0.88
Zeebar-----	30	Somewhat limited Seepage Slope	0.70 0.45	Somewhat limited Seepage	0.56
61: Donkehill-----	40	Very limited Depth to bedrock Slope	1.00 0.41	Very limited Thin layer Seepage	1.00 0.88
Zeebar-----	35	Somewhat limited Seepage Slope	0.70 0.41	Somewhat limited Seepage	0.56
62: Dumps, mine-----	100	Not rated		Not rated	
63: Escarlo-----	45	Somewhat limited Slope Seepage	0.06 0.04	Somewhat limited Piping	0.40
Heathcoat-----	40	Somewhat limited Slope Seepage	0.06 0.02	Not limited	
64: Escarlo-----	55	Somewhat limited Slope Seepage	0.06 0.04	Somewhat limited Piping	0.40

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
64: Heathcoat-----	40	Somewhat limited Slope Seepage	0.06 0.02	Not limited	
65: Ezbin-----	40	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Content of large stones Seepage	0.67 0.06
Zeebar-----	30	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.56
Nielsen-----	15	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.25
66: Fandow-----	85	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Piping Thin layer Seepage	1.00 1.00 0.69
67: Fandow-----	50	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Piping Thin layer Seepage	1.00 1.00 0.69
Arbus-----	45	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.62
68: Farvant-----	35	Somewhat limited Slope Depth to bedrock	0.99 0.80	Very limited Thin layer Content of large stones Seepage	1.00 0.21 0.12
Badland-----	25	Not rated		Not rated	
Gradco-----	20	Somewhat limited Seepage Slope Depth to bedrock	0.70 0.64 0.13	Somewhat limited Thin layer Content of large stones Seepage	0.88 0.78 0.19
69: Farvant-----	45	Somewhat limited Depth to bedrock Slope	0.66 0.50	Very limited Thin layer Seepage	1.00 0.03
Sactus-----	30	Very limited Depth to bedrock Slope	1.00 0.08	Very limited Thin layer Seepage	1.00 0.56
Dawtonia-----	15	Somewhat limited Seepage Slope	0.70 0.64	Somewhat limited Seepage	0.50

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
70: Fezip-----	35	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.62
Lemroi-----	25	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.50
Redfish-----	15	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage Content of large stones	1.00 0.54 0.02
71: Fezip-----	40	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.62
Redfish-----	25	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage Content of large stones	1.00 0.54 0.02
Copperbasin-----	15	Very limited Seepage	1.00	Somewhat limited Content of large stones Depth to saturated zone Seepage	0.87 0.84 0.61
72: Firebox-----	85	Very limited Seepage	1.00	Somewhat limited Seepage	0.75
73: Firebox-----	95	Very limited Seepage	1.00	Very limited Content of large stones Seepage	1.00 0.08
74: Frailton-----	50	Somewhat limited Slope Depth to bedrock	0.72 0.69	Very limited Thin layer Content of large stones Seepage	1.00 0.31 0.19
Dawtonia-----	35	Somewhat limited Seepage Slope	0.70 0.12	Somewhat limited Seepage	0.50

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
75: Frailton-----	50	Very limited Slope Depth to bedrock	1.00 0.80	Very limited Thin layer Seepage	1.00 0.19
Gradco-----	25	Somewhat limited Slope Seepage Depth to bedrock	0.94 0.70 0.11	Somewhat limited Thin layer Content of large stones Seepage	0.86 0.72 0.19
76: Friedman-----	40	Somewhat limited Slope	0.12	Somewhat limited Seepage	0.38
Reck-----	25	Somewhat limited Slope	0.12	Somewhat limited Content of large stones Seepage	0.12 0.06
Goldhill-----	20	Somewhat limited Slope Seepage	0.12 0.04	Somewhat limited Hard to pack Seepage	0.33 0.06
77: Gaciba-----	45	Very limited Depth to bedrock Slope	1.00 0.94	Very limited Thin layer Seepage	1.00 0.19
Cronks-----	30	Somewhat limited Slope Seepage	0.94 0.54	Somewhat limited Content of large stones	0.87
78: Gaciba-----	70	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.19
Dacont-----	15	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.69
79: Gany-----	80	Very limited Seepage Slope	1.00 0.97	Somewhat limited Seepage	0.50
80: Geemore-----	90	Somewhat limited Seepage	0.70	Somewhat limited Seepage	0.19
81: Germer-----	55	Very limited Seepage	1.00	Somewhat limited Salinity Seepage Piping	0.50 0.50 0.40
Dawtonia-----	25	Somewhat limited Seepage	0.70	Somewhat limited Seepage	0.31

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
82: Goldaho-----	65	Somewhat limited Slope Seepage	0.12 0.02	Somewhat limited Hard to pack	0.79
Zer-----	25	Very limited Seepage Slope	1.00 0.12	Somewhat limited Seepage Content of large stones	0.44 0.18
83: Goldhill-----	50	Somewhat limited Slope Seepage	0.18 0.04	Somewhat limited Seepage	0.06
Zeebar-----	30	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.56
84: Goosebury-----	80	Very limited Seepage	1.00	Somewhat limited Seepage	0.69
85: Goosebury-----	90	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.12
86: Goosebury-----	60	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.12
Windcoat-----	25	Very limited Seepage Depth to cemented pan Slope	1.00 1.00 0.01	Very limited Thin layer Seepage Piping	1.00 0.56 0.40
87: Gradco-----	45	Somewhat limited Seepage Slope Depth to bedrock	0.70 0.21 0.06 0.06	Somewhat limited Content of large stones Thin layer Seepage	0.92 0.77 0.19
Farvant-----	35	Somewhat limited Depth to bedrock Slope	0.69 0.21	Very limited Thin layer Content of large stones Seepage	1.00 0.27 0.12
88: Gradco-----	50	Somewhat limited Slope Seepage Depth to bedrock	0.97 0.70 0.06	Somewhat limited Content of large stones Thin layer Seepage	0.92 0.77 0.19

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
88: Farvant-----	35	Somewhat limited Slope Depth to bedrock	0.97 0.69	Very limited Thin layer Content of large stones Seepage	1.00 0.27 0.12
89: Hagenbarth-----	65	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Piping	0.74
Brabas-----	25	Very limited Seepage Slope	1.00 0.03	Somewhat limited Seepage	0.56
90: Heathcoat-----	75	Somewhat limited Seepage Slope	0.02 0.01	Not limited	
91: Heathcoat-----	50	Somewhat limited Slope Seepage	0.18 0.02	Not limited	
Goldhill-----	30	Somewhat limited Seepage Slope	0.54 0.18	Somewhat limited Piping	0.12
92: Heathcoat-----	45	Somewhat limited Slope Seepage	0.28 0.02	Not limited	
Soen-----	30	Somewhat limited Slope Seepage	0.28 0.04	Not limited	
93: Howcan-----	35	Somewhat limited Slope Seepage	0.99 0.70	Somewhat limited Seepage	0.12
Hagenbarth-----	30	Somewhat limited Seepage Slope	0.70 0.41	Somewhat limited Piping	0.74
Hutchley-----	20	Very limited Depth to bedrock Slope	1.00 0.01	Very limited Thin layer Content of large stones	1.00 0.01
94: Hutchley-----	40	Very limited Depth to bedrock Slope	1.00 0.28	Very limited Thin layer Content of large stones	1.00 0.07

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
94: Nurkey-----	35	Very limited Seepage Slope	1.00 0.28	Somewhat limited Seepage Content of large stones	0.50 0.06
95: Ike-----	40	Very limited Depth to bedrock Slope	1.00 0.82	Very limited Thin layer Seepage	1.00 0.25
Rock outcrop-----	20	Not rated		Not rated	
Jimbee-----	15	Very limited Depth to bedrock Slope	1.00 0.82	Very limited Thin layer Seepage	1.00 0.31
96: Inferno-----	40	Somewhat limited Slope	0.28	Somewhat limited Seepage	0.69
Grouseville-----	35	Somewhat limited Slope	0.72	Not limited	
97: Jimbee-----	45	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Thin layer Seepage	1.00 0.31
Rock outcrop-----	20	Not rated		Not rated	
Ike-----	15	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Thin layer Seepage	1.00 0.25
98: Justesen-----	50	Somewhat limited Seepage	0.54	Very limited Piping	1.00
Drage-----	35	Somewhat limited Seepage	0.70	Somewhat limited Seepage	0.44
99: Kadletz-----	90	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
100: Kehar-----	80	Somewhat limited Seepage Slope	0.02 0.02	Not limited	
101: Kehar-----	55	Somewhat limited Slope Seepage	0.72 0.54	Not limited	
Kehar, eroded-----	20	Somewhat limited Slope	0.72	Somewhat limited Hard to pack	0.57

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
102: Ketchum-----	80	Very limited Seepage Slope	1.00 0.99	Somewhat limited Seepage	0.38
103: Ketchum, cold-----	70	Very limited Seepage Slope	1.00 0.72	Somewhat limited Seepage Content of large stones	0.38 0.01
Ketchum-----	15	Very limited Seepage Slope	1.00 0.72	Somewhat limited Seepage Content of large stones	0.38 0.04
104: Klug-----	85	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.50
105: Klug-----	30	Very limited Slope Seepage	1.00 1.00	Somewhat limited Seepage	0.50
Gaciba-----	25	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.19
Dacont-----	20	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.69
106: Klug-----	60	Very limited Seepage Slope	1.00 0.97	Somewhat limited Seepage	0.50
Povey-----	25	Somewhat limited Slope Seepage	0.97 0.70	Somewhat limited Seepage Content of large stones	0.19 0.01
107: Klug-----	55	Very limited Seepage Slope	1.00 0.94	Somewhat limited Seepage Content of large stones	0.50 0.03
Povey-----	25	Somewhat limited Slope Seepage	0.94 0.70	Somewhat limited Seepage Content of large stones	0.19 0.01
108: Klug-----	50	Very limited Seepage Slope	1.00 0.72	Somewhat limited Seepage Content of large stones	0.50 0.04

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
108: Zeebar-----	30	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.56
109: Lacrol-----	65	Somewhat limited Slope	0.28	Very limited Depth to saturated zone Hard to pack	1.00 0.17
Friedman-----	20	Somewhat limited Slope	0.28	Somewhat limited Seepage	0.19
110: Lag-----	80	Very limited Seepage Slope	1.00 0.50	Somewhat limited Seepage Content of large stones	0.44 0.16
111: Lag-----	75	Very limited Seepage Slope	1.00 1.00	Somewhat limited Seepage Content of large stones	0.44 0.40
112: Lag-----	70	Very limited Seepage Slope	1.00 1.00	Somewhat limited Seepage Content of large stones	0.44 0.16
Klug-----	15	Very limited Slope Seepage	1.00 1.00	Somewhat limited Seepage	0.50
113: Langer-----	75	Very limited Seepage Slope	1.00 0.28	Somewhat limited Seepage	0.10
114: Leadore-----	90	Very limited Seepage	1.00	Somewhat limited Content of large stones Seepage	0.28 0.25
115: Leatherman-----	65	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Seepage	1.00 0.69
Arbus-----	35	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.62

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
116: Leatherman-----	45	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Seepage	1.00 0.69
Bluedome-----	30	Very limited Seepage Depth to cemented pan	1.00 0.99	Very limited Piping Thin layer Seepage	1.00 0.99 0.38
117: Lemco-----	65	Somewhat limited Slope Seepage	0.72 0.70	Not limited	
Friedman-----	25	Somewhat limited Slope	0.72	Somewhat limited Seepage	0.38
118: Lemhi-----	45	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.43
Copperbasin-----	20	Very limited Seepage	1.00	Very limited Content of large stones Depth to saturated zone Seepage	1.00 0.84 0.64
Lilylake-----	15	Very limited Seepage	1.00	Very limited Ponding Depth to saturated zone Seepage Content of large stones	1.00 1.00 1.00 0.29
119: Lemroi-----	45	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.50
Leecreek-----	40	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.31
120: Lemroi-----	40	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.50
Leecreek-----	30	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.31

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
120: Grandjean-----	20	Very limited Seepage	1.00	Very limited Ponding Depth to saturated zone Seepage	1.00 1.00 1.00
121: Lesbut-----	85	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.38 0.09
122: Lilylake-----	50	Very limited Seepage	1.00	Very limited Ponding Depth to saturated zone Seepage Content of large stones	1.00 1.00 1.00 0.05
Grandjean-----	25	Very limited Seepage	1.00	Very limited Ponding Depth to saturated zone Seepage	1.00 1.00 1.00
123: Mahaffey-----	40	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Seepage	0.68 0.44
Copperbasin-----	20	Very limited Seepage	1.00	Somewhat limited Content of large stones Depth to saturated zone Seepage	0.92 0.84 0.61
Wiskisprings-----	20	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.75
124: Meegernot-----	75	Very limited Seepage Slope	1.00 0.41	Somewhat limited Seepage	0.75
125: Meegero-----	60	Very limited Seepage Slope	1.00 0.50	Somewhat limited Seepage	0.31
Zeale-----	25	Somewhat limited Seepage Slope	0.70 0.50	Somewhat limited Seepage Content of large stones	0.31 0.08

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
126: Millhi-----	90	Not limited		Very limited Depth to saturated zone Hard to pack Salinity	1.00 1.00 0.50
127: Millhi-----	85	Not limited		Very limited Depth to saturated zone Hard to pack Salinity	1.00 1.00 0.50
128: Millhi-----	45	Somewhat limited Slope	0.08	Very limited Depth to saturated zone Hard to pack Salinity	1.00 1.00 0.50
Millhi, eroded-----	35	Somewhat limited Slope	0.28	Very limited Depth to saturated zone Piping Salinity	1.00 1.00 0.50
129: Millhi-----	50	Somewhat limited Slope	0.03	Very limited Depth to saturated zone Hard to pack Salinity	1.00 1.00 0.50
Badland-----	30	Not rated		Not rated	
130: Millhi-----	65	Somewhat limited Slope	0.28	Very limited Depth to saturated zone Hard to pack Salinity	1.00 1.00 0.50
Lacrol-----	25	Somewhat limited Slope	0.28	Very limited Depth to saturated zone Hard to pack	1.00 0.16
131: Misfire-----	35	Very limited Seepage Slope	1.00 0.64	Somewhat limited Seepage Content of large stones	0.25 0.02
Pattee-----	25	Somewhat limited Seepage Slope	0.70 0.28	Very limited Salinity Piping Seepage	1.00 1.00 0.06

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
131: Dawtonia-----	20	Somewhat limited Seepage Slope	0.70 0.64	Somewhat limited Seepage	0.50
132: Mitring-----	50	Very limited Seepage Slope Depth to bedrock	1.00 0.41 0.11	Somewhat limited Thin layer Seepage	0.86 0.62
Holinrock-----	35	Somewhat limited Depth to bedrock Seepage Slope	0.88 0.70 0.41	Somewhat limited Thin layer Seepage	0.88 0.50
133: Mogg-----	55	Very limited Depth to bedrock Slope	1.00 0.50	Very limited Thin layer Seepage	1.00 0.25
Dawtonia-----	35	Somewhat limited Seepage Slope	0.70 0.50	Somewhat limited Seepage	0.50
134: Mooretown-----	45	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone	0.95
Blackfoot-----	25	Somewhat limited Seepage	0.70	Very limited Piping Depth to saturated zone	1.00 0.95
Borah-----	20	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.38
135: Mooretown-----	55	Very limited Seepage	1.00	Somewhat limited Seepage	0.31
Borco-----	35	Very limited Seepage	1.00	Somewhat limited Seepage	0.75
136: Morphey-----	80	Not limited		Very limited Depth to saturated zone	1.00
137: Morphey-----	80	Not limited		Very limited Depth to saturated zone	1.00

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
138: Mountainboy-----	80	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Seepage Piping	1.00 0.69 0.40
139: Mountainboy-----	80	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Seepage Piping	1.00 0.69 0.40
140: Nicholia-----	65	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Seepage Piping	1.00 0.69 0.40
Goosebury-----	20	Very limited Seepage Slope	1.00 0.15	Somewhat limited Seepage	0.69
141: Nielsen-----	55	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.25
Gaciba-----	35	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.19
142: Nitchly-----	60	Somewhat limited Slope Seepage	0.72 0.04	Somewhat limited Seepage	0.38
Skibo-----	15	Very limited Seepage Slope	1.00 0.72	Somewhat limited Content of large stones Seepage	0.91 0.50
Rock outcrop-----	15	Not rated		Not rated	
143: Nurkey-----	45	Very limited Seepage Slope	1.00 0.72	Somewhat limited Seepage	0.50
Zeebar-----	30	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.56
Hutchley-----	15	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Content of large stones	1.00 0.05

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
144: Nurkey-----	50	Somewhat limited Seepage Slope	0.70 0.08	Somewhat limited Seepage	0.04
Dacont-----	30	Somewhat limited Seepage Slope	0.70 0.08	Somewhat limited Seepage Content of large stones	0.69 0.01
145: Nurkey-----	50	Very limited Seepage Slope	1.00 0.97	Somewhat limited Seepage	0.50
Dacont-----	25	Somewhat limited Slope Seepage	0.97 0.70	Somewhat limited Content of large stones Seepage	0.72 0.69
146: Nurkey-----	50	Very limited Seepage Slope	1.00 0.82	Somewhat limited Seepage Content of large stones	0.50 0.06
Dawtonia-----	35	Somewhat limited Slope Seepage	0.82 0.70	Somewhat limited Seepage	0.50
147: Oxhead-----	90	Somewhat limited Seepage	0.70	Very limited Piping	1.00
148: Packham-----	75	Very limited Seepage	1.00	Somewhat limited Seepage	0.43
149: Packham-----	60	Very limited Seepage	1.00	Somewhat limited Seepage	0.43
Perreau-----	30	Very limited Seepage	1.00	Somewhat limited Piping Seepage	0.60 0.38
150: Packmo-----	65	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.56 0.01
Leadore-----	20	Very limited Seepage	1.00	Somewhat limited Content of large stones Seepage	0.28 0.25

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
151: Packmo-----	50	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.56 0.01
Whiteknob-----	30	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
152: Pahsimeroi-----	90	Very limited Seepage	1.00	Somewhat limited Content of large stones Seepage	0.91 0.69
153: Pahsimeroi-----	80	Very limited Seepage Slope	1.00 0.03	Somewhat limited Content of large stones Seepage	0.91 0.69
154: Pahsimeroi-----	85	Very limited Seepage	1.00	Very limited Content of large stones Seepage	1.00 0.69
155: Paint-----	65	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Piping Seepage	1.00 0.78 0.56
Paint, cold-----	25	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Piping Seepage	1.00 0.78 0.56
156: Paint-----	65	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Piping Seepage	1.00 0.78 0.56
Bluedome-----	25	Very limited Seepage Depth to cemented pan	1.00 0.70	Very limited Piping Thin layer Seepage	1.00 0.70 0.38
157: Paint-----	75	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Piping Seepage	1.00 0.78 0.56
Whitecloud-----	25	Very limited Seepage	1.00	Somewhat limited Seepage	0.62

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
158: Parkay-----	45	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage Content of large stones	0.44 0.02
Donkehill-----	35	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.25
159: Parkay-----	70	Somewhat limited Seepage	0.70	Not limited	
Nurkey-----	15	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
160: Parkay-----	45	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Content of large stones Seepage	0.26 0.25
Nurkey-----	35	Very limited Seepage Slope	1.00 0.72	Somewhat limited Seepage	0.50
161: Parkay-----	45	Somewhat limited Seepage Slope	0.70 0.01	Somewhat limited Seepage	0.44
Zeebar-----	45	Somewhat limited Seepage Slope	0.70 0.01	Somewhat limited Seepage	0.56
162: Parkay-----	55	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Content of large stones Seepage	0.26 0.25
Friedman-----	30	Somewhat limited Slope	0.72	Somewhat limited Seepage	0.38
163: Pattee-----	50	Somewhat limited Seepage	0.70	Very limited Salinity Piping	1.00 1.00
Perreau-----	25	Very limited Seepage	1.00	Somewhat limited Piping Seepage	0.60 0.38
164: Pattee-----	45	Somewhat limited Seepage	0.70	Very limited Salinity Piping Seepage	1.00 1.00 0.06

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
164: Perreau-----	30	Very limited Seepage	1.00	Somewhat limited Piping Seepage	0.60 0.38
165: Pedoli-----	50	Very limited Seepage	1.00	Somewhat limited Seepage	0.69
Dawtonia-----	35	Somewhat limited Seepage	0.70	Somewhat limited Seepage	0.50
166: Pedoli-----	50	Very limited Seepage	1.00	Somewhat limited Seepage	0.69
Whiteknob-----	30	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
167: Penagul-----	45	Somewhat limited Depth to bedrock Slope	0.90 0.88	Very limited Thin layer	1.00
Rosebriar-----	30	Somewhat limited Slope Depth to bedrock	0.88 0.58	Very limited Thin layer Seepage	1.00 0.69
168: Perreau-----	75	Very limited Seepage	1.00	Somewhat limited Piping Seepage	0.60 0.38
169: Perreau-----	75	Very limited Seepage	1.00	Somewhat limited Piping Seepage	0.60 0.38
170: Perreau-----	80	Very limited Seepage Slope	1.00 0.02	Somewhat limited Piping Seepage	0.60 0.38
171: Perreau-----	50	Very limited Seepage	1.00	Somewhat limited Piping Seepage	0.60 0.38
Dawtonia-----	40	Somewhat limited Seepage	0.70	Somewhat limited Seepage	0.50
172: Perreau-----	50	Very limited Seepage Slope	1.00 0.64	Somewhat limited Piping Seepage	0.60 0.38
Dawtonia-----	40	Somewhat limited Seepage Slope	0.70 0.64	Somewhat limited Seepage	0.50

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
173:					
Perreau-----	45	Very limited Seepage Slope	1.00 0.12	Somewhat limited Piping Seepage	0.60 0.38
Pattee-----	30	Somewhat limited Seepage Slope	0.70 0.12	Very limited Salinity Piping Seepage	1.00 1.00 0.06
174:					
Pits, gravel-----	100	Not rated		Not rated	
175:					
Pits, mine-----	100	Not rated		Not rated	
176:					
Povey-----	85	Somewhat limited Seepage Slope	0.70 0.50	Somewhat limited Seepage Content of large stones	0.19 0.02
177:					
Povey-----	55	Somewhat limited Slope Seepage	0.94 0.70	Somewhat limited Seepage Content of large stones	0.19 0.12
Klug-----	40	Very limited Seepage Slope	1.00 0.94	Somewhat limited Seepage Content of large stones	0.50 0.01
178:					
Reck-----	40	Very limited Seepage Slope	1.00 0.12	Somewhat limited Content of large stones Seepage	0.76 0.03
Threedot-----	35	Somewhat limited Slope	0.12	Very limited Depth to saturated zone Seepage Content of large stones	1.00 0.69 0.10
179:					
Redfish-----	40	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.62
Fezip-----	30	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.62

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
179: Lilylake-----	20	Very limited Seepage	1.00	Very limited Ponding Depth to saturated zone Seepage Content of large stones	1.00 1.00 1.00 0.05
180: Resoot-----	45	Somewhat limited Slope	0.12	Somewhat limited Seepage	0.25
Friedman-----	35	Somewhat limited Slope	0.12	Somewhat limited Seepage Content of large stones	0.38 0.04
181: Resoot-----	55	Somewhat limited Slope	0.72	Somewhat limited Seepage	0.25
Friedman-----	30	Somewhat limited Slope	0.72	Somewhat limited Seepage	0.38
182: Ringle-----	90	Very limited Seepage	1.00	Somewhat limited Seepage Salinity	0.69 0.12
183: Rock outcrop-----	50	Not rated		Not rated	
Rubble land-----	50	Not rated		Not rated	
184: Sanfelipe-----	60	Very limited Seepage	1.00	Somewhat limited Seepage	0.44
Sanfelipe, moist----	30	Very limited Seepage	1.00	Somewhat limited Seepage	0.44
185: Shenon-----	85	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.95
186: Shenon-----	85	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.95
187: Shenon-----	45	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.95
Perreau-----	35	Very limited Seepage	1.00	Somewhat limited Piping Seepage	0.60 0.38
188: Shenon-----	55	Somewhat limited Seepage Slope	0.70 0.01	Somewhat limited Piping	0.95

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
188: Perreau-----	30	Very limited Seepage	1.00	Somewhat limited Piping Seepage	0.60 0.38
189: Simeroi-----	85	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
190: Simeroi-----	95	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
191: Simeroi, cold-----	70	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
Simeroi-----	20	Very limited Seepage	1.00	Somewhat limited Seepage	0.38
192: Simeroi-----	50	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.38
Paint-----	25	Very limited Seepage Depth to cemented pan Slope	1.00 1.00 0.01	Very limited Thin layer Piping Seepage	1.00 0.78 0.56
Sanfelipe-----	15	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.44
193: Simeroi-----	80	Very limited Seepage	1.00	Somewhat limited Seepage	0.38
Whitecloud-----	15	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
194: Skibo-----	75	Very limited Seepage Slope	1.00 0.72	Somewhat limited Content of large stones Seepage	0.93 0.50
195: Smout-----	60	Very limited Seepage	1.00	Somewhat limited Seepage	0.81
Cowbone-----	25	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.38
196: Smout-----	55	Very limited Seepage	1.00	Somewhat limited Seepage	0.81

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
196: Yearian-----	30	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Seepage	1.00 0.31
197: Snowslide-----	90	Somewhat limited Seepage	0.70	Somewhat limited Seepage Salinity Piping Content of large stones	0.56 0.50 0.40 0.07
198: Snowslide-----	85	Somewhat limited Seepage	0.70	Somewhat limited Seepage Salinity Piping	0.56 0.50 0.40
199: Snowslide-----	85	Somewhat limited Seepage Slope	0.70 0.50	Somewhat limited Seepage Salinity Piping	0.56 0.50 0.40
200: Snowslide-----	40	Very limited Seepage Slope	1.00 0.12	Somewhat limited Seepage	0.62
Badland-----	20	Not rated		Not rated	
Perreau-----	20	Very limited Seepage Slope	1.00 0.12	Somewhat limited Piping Seepage	0.60 0.38
201: Snowslide-----	60	Somewhat limited Seepage Slope	0.70 0.08	Somewhat limited Seepage Salinity Piping	0.56 0.50 0.40
Farvant-----	30	Somewhat limited Depth to bedrock Slope	0.78 0.28	Very limited Thin layer Content of large stones Seepage	1.00 0.51 0.12
202: Snowslide, south---	35	Somewhat limited Seepage Slope	0.70 0.01	Somewhat limited Seepage Salinity Piping Content of large stones	0.56 0.50 0.40 0.07
Zer-----	30	Very limited Seepage Slope	1.00 0.12	Somewhat limited Seepage Content of large stones	0.44 0.07

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
202: Snowslide, north----	20	Somewhat limited Seepage Slope	0.70 0.12	Somewhat limited Seepage Salinity Piping	0.56 0.50 0.40
203: Soen-----	80	Somewhat limited Seepage	0.04	Not limited	
204: Soen-----	40	Somewhat limited Seepage Slope	0.04 0.01	Not limited	
Justesen-----	30	Somewhat limited Seepage Slope	0.54 0.01	Very limited Piping	1.00
Howcan-----	15	Somewhat limited Seepage Slope	0.70 0.41	Somewhat limited Seepage	0.12
205: Sparmo-----	95	Very limited Seepage	1.00	Somewhat limited Seepage Piping	0.19 0.02
206: Sparmo-----	45	Very limited Seepage	1.00	Somewhat limited Seepage Piping	0.19 0.02
Zer-----	40	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.44 0.17
207: Sparmo-----	45	Very limited Seepage	1.00	Somewhat limited Seepage Piping	0.19 0.02
Zer-----	45	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.44 0.17
208: Sprabat-----	80	Very limited Seepage	1.00	Somewhat limited Piping Seepage	0.60 0.02
209: Sprabat-----	65	Very limited Seepage	1.00	Somewhat limited Piping Seepage	0.60 0.02

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
209: Snowslide-----	25	Somewhat limited Seepage	0.70	Somewhat limited Seepage Salinity Piping Content of large stones	0.56 0.50 0.40 0.07
210: Struggle-----	55	Very limited Seepage	1.00	Somewhat limited Seepage	0.54
Struggle, very stony	30	Very limited Seepage Slope	1.00 0.28	Somewhat limited Seepage Content of large stones	0.54 0.08
211: Surrett-----	80	Very limited Seepage Depth to cemented pan	1.00 0.91	Somewhat limited Thin layer Seepage	0.91 0.62
212: Surrett-----	45	Very limited Seepage Depth to cemented pan	1.00 0.86	Somewhat limited Thin layer Seepage	0.86 0.62
Nurkey-----	45	Somewhat limited Seepage	0.70	Somewhat limited Seepage	0.04
213: Swahlen-----	65	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
Packham-----	20	Very limited Seepage	1.00	Somewhat limited Seepage	0.43
214: Swahlen-----	55	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
Yearian-----	30	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Seepage	1.00 0.31
215: Thosand-----	55	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.69
Chillybu-----	35	Somewhat limited Seepage	0.70	Very limited Ponding Depth to saturated zone Content of organic matter Seepage	1.00 1.00 1.00 1.00

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
216: Thosand-----	45	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.69
Sancrane-----	35	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.38
217: Thosand-----	45	Very limited Seepage	1.00	Very limited Depth to saturated zone Ponding Seepage	1.00 1.00 0.69
Wiskisprings-----	35	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.75
218: Threedot-----	90	Somewhat limited Seepage Slope	0.70 0.12	Very limited Depth to saturated zone	1.00
219: Threedot-----	80	Somewhat limited Slope Seepage	0.08 0.04	Very limited Depth to saturated zone	1.00
220: Threedot, dry-----	45	Somewhat limited Slope Seepage	0.72 0.04	Very limited Depth to saturated zone	1.00
Threedot-----	35	Somewhat limited Slope Seepage	0.72 0.70	Very limited Depth to saturated zone	1.00
221: Typic Cryaquepts----	80	Somewhat limited Seepage	0.47	Very limited Depth to saturated zone Piping	1.00 0.56
222: Ureal-----	40	Somewhat limited Slope Depth to bedrock	0.72 0.69	Very limited Thin layer Seepage Content of large stones	1.00 0.50 0.42
Zeebar-----	30	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.56

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
222: Dacont-----	15	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Content of large stones Seepage	0.72 0.69
223: Venum-----	50	Somewhat limited Slope Seepage	0.72 0.04	Somewhat limited Content of large stones Seepage	0.67 0.44
Cronks-----	40	Somewhat limited Slope Seepage	0.72 0.54	Somewhat limited Content of large stones	0.87
224: Venum-----	60	Somewhat limited Slope Seepage	0.88 0.04	Somewhat limited Seepage Content of large stones	0.44 0.33
Rock outcrop-----	20	Not rated		Not rated	
225: Venum-----	55	Somewhat limited Slope Seepage	0.72 0.04	Somewhat limited Content of large stones Seepage	0.67 0.44
Custco-----	30	Very limited Seepage Slope	1.00 0.72	Somewhat limited Seepage	0.38
226: Whitecloud-----	85	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
227: Whitecloud-----	80	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
228: Whitecloud-----	40	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
Sanfelipe-----	25	Very limited Seepage	1.00	Somewhat limited Seepage	0.44
Fandow-----	20	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Piping Thin layer Seepage	1.00 1.00 0.69
229: Whitecloud-----	65	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
Simeroi-----	25	Very limited Seepage	1.00	Somewhat limited Seepage	0.62

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
230: Whitknob-----	90	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
231: Whitknob-----	60	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
Leadore-----	30	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.25 0.07
232: Whitknob-----	60	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
Zer-----	20	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.44 0.20
233: Wiggleton-----	85	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
234: Wiggleton-----	45	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.69 0.38
Copperbasin-----	35	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Content of large stones Seepage	0.84 0.70 0.61
235: Wimpey-----	35	Very limited Seepage	1.00	Somewhat limited Depth to saturated zone Seepage	0.95 0.56
Zeph-----	30	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.56
Ajax-----	20	Somewhat limited Seepage	0.47	Very limited Depth to saturated zone	1.00
236: Windcoat-----	90	Very limited Seepage Depth to cemented pan	1.00 1.00	Very limited Thin layer Seepage Piping	1.00 0.56 0.40

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
237: Windcoat-----	45	Very limited Seepage Depth to cemented pan Slope	1.00 1.00 0.01	Very limited Thin layer Seepage Piping	1.00 0.56 0.40
Fandow-----	35	Very limited Seepage Depth to cemented pan Slope	1.00 1.00 0.01	Very limited Piping Thin layer Seepage	1.00 1.00 0.69
238: Wiskisprings-----	45	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.75
Biglost-----	35	Very limited Seepage	1.00	Somewhat limited Seepage Depth to saturated zone	0.62 0.09
239: Wiskisprings-----	40	Very limited Seepage	1.00	Very limited Depth to saturated zone Piping Seepage	1.00 1.00 0.75
Biglost-----	30	Very limited Seepage	1.00	Somewhat limited Seepage Depth to saturated zone	0.62 0.09
Copperbasin-----	20	Very limited Seepage	1.00	Very limited Content of large stones Depth to saturated zone Seepage	1.00 0.84 0.61
240: Xeric Torrifluvents	75	Very limited Seepage	1.00	Somewhat limited Seepage	0.61
241: Yearian-----	80	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Seepage	1.00 0.31
242: Yearian-----	80	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Seepage	1.00 0.31

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
243: Zeale-----	75	Somewhat limited Seepage Slope	0.70 0.01	Somewhat limited Seepage Content of large stones	0.31 0.05
Meegero-----	15	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.31
244: Zeale-----	55	Somewhat limited Seepage Slope	0.70 0.50	Somewhat limited Seepage Content of large stones	0.31 0.05
Meegero-----	30	Very limited Seepage Slope	1.00 0.50	Somewhat limited Seepage	0.31
245: Zeale-----	45	Somewhat limited Seepage Slope	0.70 0.28	Somewhat limited Seepage Content of large stones	0.31 0.05
Zeelnot-----	30	Somewhat limited Seepage Slope	0.70 0.28	Somewhat limited Piping Seepage	0.40 0.06
246: Zeebar-----	35	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.56
Nielsen-----	30	Very limited Depth to bedrock Slope	1.00 0.72	Very limited Thin layer Seepage	1.00 0.25
Povey-----	20	Very limited Slope Seepage	1.00 0.70	Somewhat limited Seepage Content of large stones	0.19 0.12
247: Zeebar-----	55	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.56
Parkay-----	30	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.44
248: Zeebar-----	45	Somewhat limited Slope Seepage	0.72 0.70	Somewhat limited Seepage	0.56
Resoot-----	35	Somewhat limited Slope	0.72	Somewhat limited Seepage	0.25

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
249: Zeegee-----	45	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Seepage Piping	1.00 0.62 0.23
Ajax-----	35	Somewhat limited Seepage	0.47	Very limited Depth to saturated zone	1.00
250: Zeelnot-----	85	Somewhat limited Seepage Slope	0.70 0.41	Somewhat limited Piping Seepage	0.40 0.06
251: Zeelnot-----	90	Somewhat limited Seepage Slope	0.70 0.41	Somewhat limited Seepage Content of large stones	0.06 0.01
252: Zeelnot-----	40	Somewhat limited Seepage Slope	0.70 0.41	Somewhat limited Piping Seepage	0.40 0.06
Meegernot-----	30	Very limited Seepage Slope	1.00 0.41	Somewhat limited Seepage	0.75
Adek-----	15	Somewhat limited Seepage Slope	0.70 0.03	Somewhat limited Seepage	0.50
253: Zer-----	95	Very limited Seepage Slope	1.00 0.72	Somewhat limited Seepage Content of large stones	0.44 0.07
254: Zer-----	80	Very limited Seepage Slope	1.00 0.50	Somewhat limited Seepage Content of large stones	0.25 0.05
255: Zer-----	85	Very limited Seepage	1.00	Somewhat limited Seepage Salinity Piping	0.62 0.50 0.40
256: Zer-----	85	Very limited Seepage	1.00	Somewhat limited Seepage	0.25

Table 11.--Water Management--Continued

Map symbol and soil name	Pct. of map unit	Pond reservoir areas		Embankments, dikes and levees	
		Rating class and limiting features	Value	Rating class and limiting features	Value
257: Zer-----	80	Very limited Seepage	1.00	Somewhat limited Seepage Salinity Piping	0.62 0.50 0.40
258: Zer-----	80	Very limited Seepage Slope	1.00 0.72	Somewhat limited Seepage	0.69
259: Zer-----	75	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.44 0.07
Snowslide-----	20	Somewhat limited Seepage	0.70	Somewhat limited Seepage Salinity Piping	0.56 0.50 0.40
260: Zer-----	70	Very limited Seepage Slope	1.00 0.03	Somewhat limited Seepage Content of large stones	0.44 0.07
Snowslide-----	15	Somewhat limited Seepage Slope	0.70 0.03	Somewhat limited Seepage Salinity Piping	0.56 0.50 0.40
261: Zer-----	70	Very limited Seepage	1.00	Somewhat limited Seepage Content of large stones	0.44 0.10
Whiteknob-----	20	Very limited Seepage	1.00	Somewhat limited Seepage	0.62
262: Simeroi-----	85	Very limited Seepage Slope	1.00 0.97	Somewhat limited Seepage	0.56
263: Water-----	100	Not rated		Not rated	

Table 12.--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	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
1: Alpinepeak-----												
	0-3	Very gravelly sandy loam	SM	A-1, A-2	0	0	75-90	35-50	25-45	10-30	25-30	NP-5
	3-14	Very gravelly sandy loam	SM	A-1, A-2	0	0-15	65-85	35-50	25-45	10-30	25-30	NP-5
	14-32	Extremely gravelly sandy loam	SM, SP-SM	A-1	0	0-15	65-85	10-25	10-20	5-15	25-30	NP-5
	32-60	Extremely gravelly coarse sand	SP, SP-SM	A-1	0	10-30	55-75	10-25	5-20	0-10	0-14	NP
2: Aqvents-----												
	0-2	Very cobbly fine sandy loam	GP-GM	A-1	0	40-55	25-45	20-40	15-30	5-10	0-14	NP
	2-60	Stratified extremely cobbly loamy coarse sand to silt loam	GP-GM, SP-SM	A-1	0	0-60	30-55	25-50	15-25	5-10	0-14	NP
Riverwash-----	---	---	---	---	---	---	---	---	---	---	---	---
3: Arbus-----												
	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0	0-5	55-80	50-75	45-65	35-50	20-30	5-10
	3-12	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2	0	0-5	40-55	35-50	25-45	15-30	20-30	5-10
	12-60	Extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP	A-1	0	0-15	15-35	10-25	5-15	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
4: Arco-----	0-13	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	80-90	75-85	20-35	5-15
	13-54	Silt loam, silty clay loam	CL	A-6	0	0	95-100	95-100	80-95	75-90	25-40	10-20
	54-60	Silt loam, silty clay loam, gravelly loam	CL, CL-ML, GC, GC-GM	A-4, A-6	0	0	70-100	60-100	45-95	40-90	20-40	5-20
5: Badland-----	---	---	---	---	---	---	---	---	---	---	---	---
Millhi-----	0-1	Gravelly clay	CH, CL	A-7	0	0-10	60-80	60-80	55-75	50-70	40-60	20-40
	1-60	Clay, clay loam, gravelly clay	CH, CL	A-6, A-7	0	0-10	70-95	65-90	60-85	50-80	35-60	20-40
6: Bartonflat-----	0-7	Gravelly loam	CL-ML, GC-GM	A-4	0	0-5	55-80	50-75	40-70	35-60	25-30	5-10
	7-11	Extremely gravelly sandy loam	GM, GP-GM	A-1	0	5-25	15-35	5-25	5-20	0-15	0-14	NP
	11-60	Extremely gravelly loamy coarse sand, extremely cobble sand, extremely gravelly loamy sand	GP	A-1	0	15-65	25-45	20-40	10-30	0-5	0-14	NP
7: Bartonflat-----	0-5	Very gravelly sandy loam	GM	A-1, A-2	0	0-10	30-55	25-50	20-45	10-30	20-25	NP-5
	5-9	Extremely gravelly sandy loam	GM, GP-GM	A-1	0	5-25	15-35	5-25	5-20	0-15	0-14	NP
	9-60	Extremely gravelly loamy sand, extremely gravelly loamy coarse sand, extremely cobble sand	GP	A-1	0	15-65	25-45	20-40	10-30	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
8: Bartonhill-----	0-3	Very gravelly fine sandy loam	GM, GP-GM	A-1	0	0-10	40-60	30-50	20-35	10-25	20-30	NP-5
	3-12	Very gravelly fine sandy loam	GM, GP-GM	A-1	0	0-10	40-60	30-50	20-35	10-25	20-30	NP-5
	12-22	Fine sandy loam	SM	A-2, A-4	0	0-10	80-100	75-100	55-70	30-40	20-30	NP-5
	22-46	Extremely gravelly coarse sandy loam	GM, GP, GP-GM	A-1	0	5-20	15-35	10-30	5-20	0-15	0-14	NP
	46-56	Loamy fine sand	SM, SP-SM	A-2, A-4	0	0-10	85-100	80-100	65-85	10-45	0-14	NP
	56-60	Extremely gravelly sandy loam	GM, GP, GP-GM	A-1	0	0-10	10-25	5-25	5-20	0-15	0-14	NP
Whitecloud-----	0-5	Very gravelly loam	GC-GM	A-2, A-4	0	0	30-55	25-50	20-50	15-40	20-25	5-10
	5-19	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	5-20	15-55	15-50	10-40	5-30	15-20	NP-5
	19-60	Very gravelly sand, extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	5-20	10-40	10-35	0-25	0-10	0-14	NP
9: Bayhorse, north	0-8	Gravelly loam	GC-GM	A-2, A-4	0	0	55-75	50-70	35-60	30-50	25-30	5-10
	8-12	Very gravelly loam, gravelly loam	GC	A-2, A-6	0	0-10	30-65	25-60	20-50	20-40	30-40	10-20
	12-18	Very gravelly clay loam	GC	A-2	0	0-10	35-50	25-45	20-35	20-35	35-45	20-30
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
9: Bayhorse, south	0-2	Gravelly loam	GC-GM	A-2, A-4	0	0	55-75	50-70	35-60	30-50	25-30	5-10
	2-12	Very gravelly loam, gravelly loam	GC	A-2, A-6	0	0-10	30-65	25-60	20-50	20-40	30-40	10-20
	12-16	Unweathered bedrock			---	---	---	---	---	---	---	---
10: Bayhorse-----	0-2	Gravelly loam	GC-GM	A-2, A-4	0	0	55-75	50-70	35-60	30-50	25-30	5-10
	2-12	Very gravelly loam, gravelly loam	GC	A-2, A-6	0	0-10	30-65	25-60	20-50	20-40	30-40	10-20
	12-16	Unweathered bedrock			---	---	---	---	---	---	---	---
Dawtonia-----	0-3	Very gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	3-10	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	10-60	Very gravelly loam	GC-GM, GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
11: Bigflat-----	0-10	Loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0-10	95-100	75-100	60-80	40-60	25-35	5-15
	10-15	Clay	CH	A-7	0	0	90-100	80-100	70-90	60-75	50-70	25-40
	15-49	Silty clay loam, clay loam	CL	A-7	0	0	90-100	75-100	70-95	60-80	35-50	15-25
	49-61	Very gravelly sandy clay loam, very gravelly clay loam	GC	A-6, A-7	0	0	35-50	30-50	20-40	15-40	30-45	10-20

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
11: Dacont-----	0-8	Gravelly loam	GC-GM, SC-SM	A-4	0-1	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	8-18	Very gravelly loam, very gravelly clay loam	GC	A-2	0-1	0-15	35-55	30-50	25-40	20-35	30-40	10-15
	18-60	Very gravelly sandy loam, extremely cobble loam	GC-GM, GP-GC	A-1, A-2	0-1	45-60	15-30	10-25	10-25	5-20	25-30	5-10
12: Biglost-----	0-5	Gravelly fine sandy loam	GM, SM	A-1, A-2, A-4	0	0	55-80	50-75	35-55	20-40	20-25	NP-5
	5-23	Fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	90-100	75-95	60-80	35-60	20-25	NP-5
	23-60	Stratified extremely gravelly loamy coarse sand to extremely gravelly loamy fine sand	GM, GP, GP-GM	A-1	0-10	15-50	15-30	10-25	5-20	0-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
12: Copperbasin-----	0-5	Very gravelly fine sandy loam	GM	A-1, A-2	0	0-20	30-60	25-55	25-50	15-35	25-30	NP-5
	5-25	Extremely gravelly loamy fine sand, extremely gravelly loamy sand, very gravelly sandy loam	GM, GP-GM	A-1	0-20	30-50	20-45	15-40	15-30	5-30	25-30	NP-5
	25-33	Extremely cobble sand, extremely cobble loamy sand, extremely gravelly loamy sand	GM, GP, GP-GM	A-1	0-20	50-70	20-45	15-40	15-30	0-20	0-14	NP
	33-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GM, GP, GP-GM	A-1	0-20	25-65	20-40	15-35	15-25	0-15	0-14	NP
13: Bigrant, very poorly drained	0-5	Silty clay loam	CL	A-6	0	0	95-100	95-100	90-100	85-100	30-40	15-25
	5-60	Silty clay loam, clay loam, clay	CL	A-6	0	0	95-100	95-100	90-100	85-100	30-40	15-25
Bigrant, poorly drained-----	0-19	Silty clay loam	CL	A-6	0	0	95-100	95-100	90-100	85-100	30-40	15-25
	19-25	Silty clay loam, clay loam	CL	A-6	0	0	95-100	95-100	75-100	75-100	30-40	15-25
	25-29	Clay	CL	A-6	0	0	95-100	95-100	75-100	75-100	30-40	15-25
	29-60	Loam	CL	A-6	0	0-10	90-100	85-100	75-100	75-100	30-35	10-15

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
14: Bigrant-----	0-19	Silt loam	CL-ML, ML	A-4	0	0	95-100	95-100	80-95	75-90	25-35	5-10
	19-25	Silty clay loam, clay loam	CL	A-6	0	0	95-100	95-100	75-100	75-100	30-40	15-25
	25-29	Clay	CL	A-6	0	0	95-100	95-100	75-100	75-100	30-40	15-25
	29-60	Loam	CL	A-6	0	0-10	90-100	85-100	75-100	75-100	30-35	10-15
Thosand-----	0-5	Silt loam	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	75-95	50-90	25-35	5-15
	5-22	Silt loam, loam, fine sandy loam	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	60-95	50-80	25-35	5-15
	22-39	Gravelly silt loam	CL, CL-ML, GC, GC-GM	A-4, A-6	0	0	60-75	55-75	45-75	40-60	25-35	5-15
	39-44	Very gravelly silt loam, gravelly very fine sandy loam, very gravelly sandy loam	GM	A-1, A-2, A-4	0	0	30-65	25-60	20-55	10-45	20-30	NP-5
	44-60	Extremely gravelly loamy sand	GM, GP, GP-GM	A-1	0	0	15-30	10-25	5-20	0-15	0-14	NP
Dickeypeak-----	0-3	Silty clay loam	ML	A-7	0	0	95-100	90-100	60-95	50-80	40-50	10-20
	3-32	Loam, clay loam	CL	A-6	0	0	90-100	85-100	55-90	50-80	35-40	10-15
	32-52	Loam, fine sandy loam	CL	A-6	0	0	90-100	85-100	55-90	50-65	35-40	10-15
	52-60	Gravelly fine sandy loam	GC-GM	A-2, A-4	0	0-10	55-80	50-75	45-70	25-45	20-30	5-10
	60-65	Very gravelly loamy coarse sand	GM	A-1	0	0-10	30-55	25-50	15-30	5-15	0-14	NP
15: Blackfoot-----	0-10	Loam	CL-ML, ML	A-4	0	0	95-100	95-100	90-100	70-90	20-30	NP-10
	10-27	Loam, silt loam	CL-ML, ML	A-4	0	0	95-100	95-100	65-75	55-70	20-30	NP-10
	27-60	Stratified fine sandy loam to silty clay loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	75-95	50-70	20-35	5-15

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
16: Blackfoot-----	0-10	Loam	CL-ML, ML	A-4	0	0	95-100	95-100	90-100	70-90	20-30	NP-10
	10-27	Loam, silt loam	CL-ML, ML	A-4	0	0	95-100	95-100	65-75	55-70	20-30	NP-10
	27-60	Stratified fine sandy loam to silty clay loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	75-95	50-70	20-35	5-15
Borco-----	0-2	Very gravelly loam	GM	A-2	0	0-10	35-50	30-45	20-40	15-30	15-25	NP-5
	2-10	Gravelly loam, very gravelly sandy loam, gravelly sandy loam	GM	A-1, A-2, A-4	0	0-10	40-65	35-60	30-50	20-40	15-25	NP-5
	10-60	Extremely gravelly sand, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	0-15	15-30	10-25	5-15	0-10	0-14	NP
17: Bluedome-----	0-3	Loam	ML	A-4	0	0	95-100	75-100	65-95	50-75	20-25	NP-5
	3-34	Loam, gravelly loam, gravelly sandy loam	GM, ML	A-4	0	0	65-95	55-90	40-85	35-70	20-25	NP-5
	34-46	Cemented			---	---	---	---	---	---	---	---
	46-60	Extremely gravelly loamy coarse sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GP, GP-GM, SP, SP-SM	A-1	0	0-15	15-55	10-25	5-15	0-10	0-14	NP
18: Bock-----	0-7	Loam	ML	A-4	0	0	95-100	90-100	75-90	60-80	20-25	NP-5
	7-60	Loam, gravelly loam, fine sandy loam	CL-ML	A-4	0	0-10	70-100	65-95	65-90	55-70	20-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
18: Breitenbach-----	0-10	Loam	CL-ML	A-4	0	0	90-100	85-100	60-80	50-75	20-30	5-10
	10-21	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2, A-4	0	0-10	45-70	40-50	30-45	25-45	20-30	5-10
	21-60	Extremely gravelly sandy loam, very gravelly sandy loam, extremely gravelly loam	GC-GM	A-2	0	0-10	25-45	20-40	15-35	10-30	20-30	5-10
19: Bock-----	0-18	Silt loam	ML	A-4	0	0	95-100	90-100	75-90	60-80	20-25	NP-5
	18-48	Loam, gravelly loam, fine sandy loam	CL-ML	A-4	0	0-10	70-100	65-95	65-90	55-70	20-30	5-10
	48-60	Very gravelly loamy sand, extremely gravelly coarse sand, extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-25	20-50	10-35	5-25	0-10	0-14	NP
Bromaglin-----	0-5	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	95-100	90-100	20-30	5-15
	5-12	Very fine sandy loam	CL-ML, SC-SM	A-2, A-4	0	0	80-100	75-100	60-80	30-60	20-30	5-10
	12-20	Sandy loam, gravelly loam	SC, SC-SM	A-2, A-4, A-6	0	0	65-90	55-90	40-60	20-50	20-30	5-15
	20-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand	GM, GP, GP-GM	A-1	0	0-10	20-30	15-25	5-20	0-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
20: Bockston-----	0-8	Loam	CL-ML, ML	A-4	0	0	90-100	80-100	75-100	55-85	20-30	NP-10
	8-34	Loam, silt loam	CL-ML, ML, SC-SM, SM	A-4	0	0	90-100	80-100	75-100	45-75	20-30	NP-10
	34-47	Loam, gravelly loam	CL-ML, SC-SM	A-4	0	0	75-100	65-100	60-95	40-70	20-30	5-10
	47-60	Gravelly fine sandy loam	GM, SM	A-2, A-4	0	0	50-85	45-75	40-75	25-40	15-25	NP-5
21: Brabas-----	0-3	Very gravelly loam	GC, GC-GM	A-2, A-6	0	0-10	50-65	35-50	25-50	20-45	25-35	5-15
	3-8	Gravelly clay loam	CL, GC	A-6	0	0	65-85	55-75	40-70	35-65	30-40	10-20
	8-17	Silty clay	CH, CL	A-7	0	0	85-100	75-100	65-90	60-85	45-55	25-35
	17-30	Extremely gravelly loam, extremely gravelly loamy sand	GC-GM, GM, GP-GM	A-1, A-2	0	25-40	20-35	15-25	10-25	5-20	20-30	NP-10
	30-60	Gravelly silty clay, silty clay	CH, CL	A-7	0	0	80-95	70-90	60-85	55-80	45-55	25-35
Heathcoat-----	0-3	Gravelly silt loam	SC, GC	A-2, A-6	0	0-10	55-80	50-75	40-60	30-50	25-35	10-15
	3-7	Loam, silty clay loam, gravelly clay loam	CL	A-6	0	0-5	70-100	65-100	60-90	55-85	30-40	10-20
	7-60	Silty clay, gravelly clay, clay loam	CH, CL, GC	A-7	0	0-5	65-100	60-100	50-95	45-80	40-55	20-30

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
22: Breitenbach-----	0-5	Gravelly loam	GC-GM, SC-SM	A-2, A-4	0	0-5	60-80	45-75	40-60	30-50	20-30	5-10
	5-18	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2, A-4	0	0-10	45-70	40-50	30-45	25-45	20-30	5-10
	18-40	Extremely gravelly sandy loam, very gravelly sandy loam, extremely gravelly loam	GC-GM	A-2	0	0-10	25-45	20-40	15-35	10-30	20-30	5-10
	40-60	Extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GM, GP, GP-GM	A-1	0	0-25	15-35	10-35	5-30	0-25	0-14	NP
23: Breitenbach-----	0-5	Gravelly loam	GC-GM, SC-SM	A-2, A-4	0	0-5	60-80	45-75	40-60	30-50	20-30	5-10
	5-18	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2, A-4	0	0-10	45-70	40-50	30-45	25-45	20-30	5-10
	18-40	Extremely gravelly sandy loam, very gravelly sandy loam, extremely gravelly loam	GC-GM	A-2	0	0-10	25-45	20-40	15-35	10-30	20-30	5-10
	40-60	Extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GM, GP, GP-GM	A-1	0	0-25	15-35	10-35	5-30	0-25	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
24: Breitenbach-----	0-5	Gravelly loam	GC-GM, SC-SM	A-2, A-4	0	0-5	60-80	45-75	40-60	30-50	20-30	5-10
	5-18	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2, A-4	0	0-10	45-70	40-50	30-45	25-45	20-30	5-10
	18-40	Extremely gravelly sandy loam, very gravelly sandy loam, extremely gravelly loam	GC-GM	A-2	0	0-10	25-45	20-40	15-35	10-30	20-30	5-10
	40-60	Extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GM, GP, GP-GM	A-1	0	0-25	15-35	10-35	5-30	0-25	0-14	NP
25: Bunting-----	0-10	Gravelly loam	SC-SM	A-2, A-4	0-5	0-10	80-95	55-75	40-60	25-40	20-30	5-10
	10-18	Gravelly loam, very gravelly loam	GM, SM	A-1, A-2	0-5	0-10	45-75	35-65	15-55	10-35	20-25	NP-5
	18-22	Extremely gravelly sandy loam, extremely gravelly loam, very gravelly sandy loam	GM	A-2, A-4	0-5	0-25	25-55	20-55	15-55	10-40	15-20	NP-5
	22-60	Stratified extremely cobbly coarse sand to very gravelly loamy sand	GM, GP-GM	A-1	0-10	10-40	25-55	20-50	10-30	5-20	10-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
26: Bunting-----	0-4	Gravelly loam	SC-SM	A-2, A-4	0-5	0-10	80-95	55-75	40-60	25-40	20-30	5-10
	4-15	Gravelly loam, very gravelly loam	GM, SM	A-1, A-2	0-5	0-10	45-75	35-65	15-55	10-35	20-25	NP-5
	15-22	Extremely gravelly sandy loam, extremely gravelly loam, very gravelly sandy loam	GM	A-2, A-4	0-5	0-25	25-55	20-55	15-55	10-40	15-20	NP-5
	22-60	Stratified extremely cobble coarse sand to very gravelly loamy sand	GM, GP-GM	A-1	0-10	10-40	25-55	20-50	10-30	5-20	10-20	NP-5
27: Bunting-----	0-10	Gravelly loam	SC-SM	A-2, A-4	0-5	0-10	80-95	55-75	40-60	25-40	20-30	5-10
	10-18	Gravelly loam, very gravelly loam	GM, SM	A-1, A-2	0-5	0-10	45-75	35-65	15-55	10-35	20-25	NP-5
	18-22	Extremely gravelly sandy loam, extremely gravelly loam, very gravelly sandy loam	GM	A-2, A-4	0-5	0-25	25-55	20-55	15-55	10-40	15-20	NP-5
	22-60	Stratified extremely cobble coarse sand to very gravelly loamy sand	GM, GP-GM	A-1	0-10	10-40	25-55	20-50	10-30	5-20	10-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
27: Moffspring-----	0-7	Loam	CL, CL-ML	A-6	0	0	90-100	85-95	70-85	55-75	25-35	5-15
	7-15	Clay loam, silty clay loam	CL	A-6	0	0-10	90-95	85-90	75-80	60-70	35-40	15-20
	15-22	Loam, gravelly sandy loam, gravelly loam	SC-SM, SM	A-2, A-4	0	0-10	60-95	55-90	40-80	15-50	20-25	NP-10
	22-60	Stratified extremely gravelly coarse sand to very gravelly loamy sand	GM, GP-GM, SM	A-1	0	5-25	50-65	25-50	20-35	5-15	10-15	NP-5
28: Bursteadt-----	0-5	Very fine sandy loam	ML, SM	A-4	0	0	90-100	85-100	75-90	40-65	20-30	NP-5
	5-20	Sandy loam, fine sandy loam, very fine sandy loam	ML	A-4	0	0	90-100	85-100	60-80	55-80	20-30	NP-5
	20-31	Fine sandy loam, sandy loam	ML	A-4	0	0	95-100	90-100	60-80	55-80	20-30	NP-5
	31-60	Stratified extremely cobble coarse sand to loamy coarse sand	GP	A-1	0	5-75	25-80	20-75	10-25	0-5	0-14	NP
Tohobit-----	0-9	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	95-100	90-100	20-35	5-15
	9-21	Silt loam, fine sandy loam, gravelly silt loam	ML, SM	A-4	0	0	70-100	65-100	60-80	40-60	20-30	NP-5
	21-60	Stratified extremely gravelly coarse sand to loamy fine sand	GP, SM, SP, SP-SM	A-1, A-2, A-3	0	0-10	25-95	20-85	10-80	0-45	0-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
29: Busterback-----	0-4	Very gravelly loam	GC-GM, GM	A-1, A-2	0	0-10	30-55	25-50	20-45	15-35	20-30	NP-10
	4-13	Very gravelly loam	GC-GM, GM	A-1, A-2	0	0-10	30-55	25-50	20-45	15-35	20-30	NP-10
	13-30	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	0-20	15-60	10-50	10-40	5-30	15-20	NP-5
	30-60	Extremely gravelly coarse sand, extremely cobble sand	GP, GP-GM, SP, SP-SM	A-1, A-3	0	10-80	30-80	25-75	15-60	0-10	0-14	NP
Wiggleton-----	0-10	Very gravelly loam	GM	A-1, A-2, A-4	0	0-5	30-55	25-50	20-50	15-40	15-20	NP-5
	10-18	Very gravelly coarse sandy loam	GM	A-1	0	0-10	40-55	35-50	20-30	15-25	15-20	NP-5
	18-60	Extremely gravelly loamy coarse sand, extremely gravelly sand	GP	A-1	0	5-30	20-30	10-20	5-10	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
30: Calcids-----	0-3	Very cobbly loam	GC-GM, GM	A-2, A-4	0-5	40-55	45-70	40-70	30-55	25-50	20-30	NP-10
	3-7	Very gravelly loam, extremely gravelly loam, very cobbly loam	GC-GM, GM	A-1, A-2, A-4	0-5	10-55	30-75	25-70	20-55	15-50	20-30	NP-10
	7-25	Extremely cobbly sandy loam, extremely gravelly loam, extremely stony sandy loam	GM, SM	A-1, A-2, A-4	0-20	15-60	30-75	25-70	20-55	15-45	15-25	NP-5
	25-60	Extremely gravelly coarse sandy loam, extremely gravelly loam, extremely stony sandy loam	GM	A-1	0-20	10-25	20-30	15-25	10-20	10-15	15-25	NP-5
Badland-----	---	---	---	---	---	---	---	---	---	---	---	---
Xerolls-----	0-5	Silt loam	CL-ML, ML	A-4	0	0	90-100	90-100	75-85	55-70	20-30	NP-10
	5-16	Gravelly silt loam, gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0	0	60-80	55-75	45-65	40-55	25-35	5-10
	16-60	Stratified very gravelly sandy loam to clay	CH, CL-ML, GC, GC-GM	A-2, A-4, A-6, A-7	0	0-10	45-100	40-95	30-85	20-80	25-65	5-40

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
31: Calcids-----	0-2	Very cobbly loam	GC-GM, GM	A-2, A-4	0-5	40-55	45-70	40-70	30-55	25-50	20-30	NP-10
	2-16	Very gravelly loam, extremely gravelly loam, very cobbly loam	GC-GM, GM	A-1, A-2, A-4	0-5	10-55	30-75	25-70	20-55	15-50	20-30	NP-10
	16-37	Extremely cobbly sandy loam, extremely gravelly loam, extremely stony sandy loam	GM, SM	A-1, A-2, A-4	0-20	15-60	30-75	25-70	20-55	15-45	15-25	NP-5
	37-60	Extremely gravelly coarse sandy loam, extremely gravelly loam, extremely stony sandy loam	GM	A-1	0-20	10-25	20-30	15-25	10-20	10-15	15-25	NP-5
Rubble land-----	---	---	---	---	---	---	---	---	---	---	---	---
Rock outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
32: Castlepeak-----	0-2	Very gravelly sandy loam	SM	A-1, A-2	0-5	0-10	60-90	30-50	20-40	10-30	0-14	NP
	2-7	Very gravelly loamy sand	GM, SM	A-1	0-5	0-15	50-75	35-45	15-30	10-20	0-14	NP
	7-60	Extremely gravelly loamy sand, extremely gravelly coarse sand	GP	A-1	10-25	15-55	20-30	10-20	0-10	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
32: Yankeefork-----	0-2	Gravelly sandy loam	SM, SP-SM	A-4, A-2, A-1	0	0-10	70-90	55-75	35-60	10-45	25-30	NP-5
	2-28	Gravelly sandy loam, very gravelly sandy loam	SM	A-2, A-1	0	0-25	65-85	35-60	25-45	15-30	25-30	NP-5
	28-60	Extremely gravelly coarse sand, extremely cobbly coarse sand	SP, SP-SM	A-1	1-20	25-50	65-85	15-35	5-20	0-10	0-14	NP
33: Chamberlain-----	0-2	Gravelly loam	CL-ML, GC-GM	A-4	0	0-10	60-75	60-75	45-60	40-55	25-30	5-10
	2-13	Gravelly loam, gravelly clay loam, very gravelly clay loam	GC, GM	A-2, A-4, A-6	0	0-10	50-65	40-60	25-50	20-45	30-40	5-15
	13-26	Very gravelly clay loam, very gravelly sandy clay loam, very gravelly loam	GC, GM	A-2, A-4, A-6	0-5	0-25	45-60	35-50	25-45	20-40	30-40	5-15
	26-34	Very gravelly coarse sandy loam	GM, GP-GM, SM, SP-SM	A-1	0-5	10-20	40-65	35-50	15-30	10-25	15-25	NP-5
	34-60	Extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0-5	10-25	20-40	10-25	5-20	0-10	0-14	NP
34: Coalkiln-----	0-4	Stony loam	CL-ML, GC-GM	A-2, A-4	5-10	5-15	50-95	50-90	35-75	25-65	20-30	5-10
	4-17	Gravelly loam	CL-ML, GC-GM	A-2, A-4	0-5	5-15	55-90	50-85	40-70	30-55	20-30	5-10
	17-37	Very gravelly loam	GC-GM	A-2, A-4	0-5	5-20	35-60	30-55	25-45	20-40	20-30	5-10
	37-60	Extremely gravelly loam	GM, GP-GM	A-1	0-5	10-35	25-40	15-30	10-20	5-15	15-25	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
34: Zeelnot-----	0-10	Gravelly loam	CL-ML, GC-GM	A-2, A-4	0	0-5	55-80	50-75	35-60	30-55	25-30	5-10
	10-24	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	35-60	30-50	20-50	15-45	25-30	5-10
	24-32	Extremely gravelly loam	GC	A-2	0	10-30	20-40	15-40	15-35	15-25	30-40	10-20
	32-60	Extremely cobbly clay loam, extremely cobbly silty clay loam	GC	A-2, A-6, A-7	0	30-80	25-70	25-70	20-60	20-45	35-45	15-20
35: Copperbasin----	0-10	Gravelly fine sandy loam	SM	A-2, A-4	0	0-10	65-80	60-75	50-70	10-45	25-30	NP-5
	10-27	Extremely gravelly loamy fine sand, extremely gravelly loamy sand, very gravelly sandy loam	GM, GP-GM	A-1	0-20	30-50	20-45	15-40	15-30	5-30	25-30	NP-5
	27-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobbly coarse sand	GM, GP, GP-GM	A-1	0-20	25-65	20-40	15-35	15-25	0-15	0-14	NP
Redfish-----	0-4	Gravelly sandy loam	SM	A-1, A-2, A-4	0	0-5	60-80	55-75	35-60	20-45	20-25	NP-5
	4-22	Very gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-1, A-2, A-4	0	0-10	50-75	40-70	30-60	15-40	20-25	NP-5
	22-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand	GP	A-1	0	25-45	20-40	10-35	5-15	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
36: Copperbasin-----	0-5	Very gravelly fine sandy loam	GM	A-1, A-2	0	0-20	30-60	25-55	25-50	15-35	25-30	NP-5
	5-25	Extremely gravelly loamy fine sand, extremely gravelly loamy sand, very gravelly sandy loam	GM, GP-GM	A-1	0-20	30-50	20-45	15-40	15-30	5-30	25-30	NP-5
	25-33	Extremely cobble sand, extremely cobble loamy sand, extremely gravelly loamy sand	GM, GP, GP-GM	A-1	0-20	50-70	20-45	15-40	15-30	0-20	0-14	NP
	33-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GM, GP, GP-GM	A-1	0-20	25-65	20-40	15-35	15-25	0-15	0-14	NP
Redfish-----	0-5	Gravelly sandy loam	SM	A-1, A-2, A-4	0	0-5	60-80	55-75	35-60	20-45	20-25	NP-5
	5-10	Very gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-1, A-2, A-4	0	0-10	50-75	40-70	30-60	15-40	20-25	NP-5
	10-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand	GP	A-1	0	25-45	20-40	10-35	5-15	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
37: Cowbone-----	0-16	Silt loam	ML	A-4	0	0	95-100	95-100	90-100	90-100	25-30	NP-5
	16-24	Silt loam	CL-ML	A-4	0	0	90-100	85-100	75-100	65-100	25-30	5-10
	24-54	Very fine sandy loam, fine sandy loam	ML, SM	A-4	0	0	90-100	85-100	70-85	35-60	0-14	NP-5
	54-60	Very cobbly loamy very fine sand	GM, GP-GM	A-1, A-2	0-5	35-85	25-45	20-40	10-40	5-30	0-14	NP-5
Tohobit-----	0-9	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	95-100	90-100	20-35	5-15
	9-21	Silt loam, fine sandy loam, gravelly silt loam	ML, SM	A-4	0	0	70-100	65-100	60-80	40-60	20-30	NP-5
	21-60	Stratified extremely gravelly coarse sand to loamy fine sand	GP, SM, SP, SP-SM	A-1, A-2, A-3	0	0-10	25-95	20-85	10-80	0-45	0-20	NP-5
38: Cronks-----	0-10	Cobbly loam	CL-ML	A-4	0-5	15-40	70-85	70-85	55-70	50-60	25-30	5-10
	10-35	Very cobbly clay, very cobbly clay loam	CH, CL, GC	A-7	0-5	30-50	50-70	50-70	45-70	45-65	45-55	20-30
	35-55	Very cobbly silt loam, very cobbly clay loam	CL, GC	A-6	0-5	30-60	50-70	50-70	45-70	35-60	30-40	10-15
	55-70	Very cobbly silt loam, very cobbly clay loam	CL, GC	A-6	0-5	30-60	50-70	50-70	45-70	35-60	30-40	10-15
Challis-----	0-4	Gravelly clay loam	CL, GC	A-6, A-7	0-10	0-5	55-75	50-70	40-65	35-55	35-45	15-20
	4-23	Very gravelly clay	GC	A-2, A-7	0	0-10	35-55	30-50	25-50	20-45	45-55	20-30
	23-60	Very gravelly loam, extremely gravelly loam	GC	A-2	0	0-20	30-55	25-50	15-45	15-35	25-35	10-15

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
39: Cronks-----	0-10	Very cobbly loam	GC-GM	A-2, A-4	0-5	30-50	50-70	50-70	40-60	30-50	25-30	5-10
	10-35	Very cobbly clay, very cobbly clay loam	CH, CL, GC	A-7	0-5	30-50	50-70	50-70	45-70	45-65	45-55	20-30
	35-55	Very cobbly silt loam, very cobbly clay loam	CL, GC	A-6	0-5	30-60	50-70	50-70	45-70	35-60	30-40	10-15
	55-70	Very cobbly silt loam, very cobbly clay loam	CL, GC	A-6	0-5	30-60	50-70	50-70	45-70	35-60	30-40	10-15
Venum-----	0-2	Very cobbly loam	GC, GC-GM	A-2, A-4, A-6	0	30-45	55-75	50-70	40-65	30-50	25-35	5-15
	2-9	Very gravelly clay loam, very gravelly clay, very cobbly clay	CH, CL, GC	A-2, A-7	0	20-60	45-80	40-80	30-75	30-60	40-60	20-40
	9-26	Very gravelly clay loam, very gravelly clay, very cobbly clay	CH, CL, GC	A-2, A-7	0	20-60	45-80	40-80	30-75	30-60	40-60	20-40
	26-60	Very gravelly clay loam, extremely gravelly clay loam, extremely gravelly loam	GC	A-2	0	15-40	20-45	20-40	15-40	10-35	30-50	10-25

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
40: Cryolls-----	0-3	Stony loam	GC, GC-GM	A-2, A-4	2-20	5-25	45-70	40-70	30-65	25-50	20-35	5-15
	3-33	Very gravelly sandy loam, extremely gravelly loam, extremely cobble clay loam	GC, GC-GM	A-2	0-15	10-55	30-55	25-50	20-45	15-35	20-40	5-15
	33-60	Extremely cobble loamy coarse sand, extremely gravelly loam	GM, GP-GM	A-1, A-2	0-15	20-65	35-70	30-65	15-45	5-35	15-35	NP-10
Rubble land-----	---	---	---	---	---	---	---	---	---	---	---	---
41: Cryolls-----	0-3	Stony loam	GC, GC-GM	A-2, A-4	2-20	5-25	45-70	40-70	30-65	25-50	20-35	5-15
	3-12	Very gravelly sandy loam, extremely gravelly loam, extremely cobble clay loam	GC, GC-GM	A-2	0-15	10-55	30-55	25-50	20-45	15-35	20-40	5-15
	12-33	Extremely cobble loamy coarse sand, extremely gravelly loam	GM, GP-GM	A-1, A-2	0-15	20-65	35-70	30-65	15-45	5-35	15-35	NP-10
	33-43	Unweathered bedrock			---	---	---	---	---	---	---	---
Rubble land-----	---	---	---	---	---	---	---	---	---	---	---	---
Rock outcrop-----	---	---	---	---	---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
42: Cryepts-----	0-3	Very stony loam	GC-GM	A-4	2-15	25-45	50-75	45-70	40-65	35-50	20-30	5-10
	3-8	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-10	10-35	35-75	30-70	30-50	25-45	20-30	5-10
	8-60	Extremely gravelly sandy loam, extremely gravelly loamy sand, extremely stony very fine sandy loam	GM, GP-GM	A-1	0-25	10-45	10-40	5-30	5-25	0-15	15-20	NP-5
Rubble land----	---	---	---	---	---	---	---	---	---	---	---	---
Rock outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
43: Custco-----	0-10	Stony loam	GC, GC-GM, SC, SC-SM	A-4	5-10	0-10	55-75	50-75	40-65	35-50	25-35	5-15
	10-21	Very gravelly loam, extremely gravelly loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-10	25-55	20-50	15-45	15-40	25-40	5-15
	21-60	Very gravelly loam, extremely gravelly loamy sand, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	0-35	20-50	15-45	5-35	5-20	15-25	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
44: Dacont-----	0-4	Very cobbly loam	GC-GM	A-2, A-4	0-1	40-50	55-70	50-70	45-60	30-50	25-30	5-10
	4-10	Very gravelly loam, very gravelly clay loam	GC	A-2	0-1	0-15	35-55	30-50	25-40	20-35	30-40	10-15
	10-18	Extremely gravelly loam, very gravelly sandy loam, very gravelly loam	GC-GM	A-2	0-1	10-40	25-50	20-45	15-35	10-30	25-30	5-10
	18-60	Very gravelly sandy loam, extremely cobbly loam	GC-GM, GP-GC	A-1, A-2	0-1	45-60	15-30	10-25	10-25	5-20	25-30	5-10
Custco-----	0-4	Gravelly loam	GC, GC-GM	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	25-35	5-15
	4-17	Very gravelly loam, extremely gravelly loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-10	25-55	20-50	15-45	15-40	25-40	5-15
	17-60	Very gravelly loam, extremely gravelly loamy sand, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	0-35	20-50	15-45	5-35	5-20	15-25	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
45: Dacont-----	0-3	Very gravelly loam	GC-GM	A-2	0-1	0-10	35-55	30-50	20-40	20-35	25-30	5-10
	3-28	Very gravelly loam, very gravelly clay loam	GC	A-2	0-1	0-15	35-55	30-50	25-40	20-35	30-40	10-15
	28-41	Extremely gravelly loam, very gravelly sandy loam, very gravelly loam	GC-GM	A-2	0-1	10-40	25-50	20-45	15-35	10-30	25-30	5-10
	41-60	Very gravelly sandy loam, extremely cobbly loam	GC-GM, GP-GC	A-1, A-2	0-1	45-60	15-30	10-25	10-25	5-20	25-30	5-10
Resoot-----	0-11	Gravelly loam	GC-GM, SC-SM	A-4	0	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	11-60	Very gravelly clay loam, very gravelly clay, extremely gravelly clay	GC	A-2	0	0-25	30-55	25-50	20-40	20-35	35-50	15-25
Nielsen-----	0-3	Cobbly loam	CL-ML, GC-GM	A-4	0	25-45	70-95	70-90	45-75	45-70	25-30	5-10
	3-15	Very gravelly clay loam, extremely gravelly clay loam, very gravelly loam	GC	A-2	0	0-30	25-55	20-50	15-40	15-35	30-40	10-20
	15-25	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
46: Dacont-----	0-2	Very gravelly loam	GC-GM	A-2	0-1	0-10	35-55	30-50	20-40	20-35	25-30	5-10
	2-20	Very gravelly loam, very gravelly clay loam	GC	A-2	0-1	0-15	35-55	30-50	25-40	20-35	30-40	10-15
	20-60	Extremely gravelly loam, very gravelly sandy loam, very gravelly loam	GC-GM	A-2	0-1	10-40	25-50	20-45	15-35	10-30	25-30	5-10
Zeebar-----	0-3	Gravelly loam	GM, ML, SM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	3-13	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	13-19	Very gravelly sandy clay loam, very gravelly clay loam, gravelly clay loam	GC	A-2, A-6, A-7	0-5	10-20	30-55	25-50	20-45	20-40	30-45	10-20
	19-29	Extremely gravelly clay loam, extremely gravelly sandy clay loam	GC, GP-GC	A-2	0-5	10-45	20-35	10-25	5-25	5-20	30-45	10-20
	29-60	Extremely gravelly loam, extremely gravelly sandy loam, extremely gravelly sandy clay loam	GC-GM, GP-GC	A-2	0-5	10-45	20-35	10-25	10-20	5-20	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
47: Darlington-----	0-7	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	40-55	35-50	25-45	20-40	20-30	5-10
	7-33	Gravelly loam, very gravelly loam, very gravelly sandy loam	GC-GM, SC-SM	A-4, A-2	0	0-10	40-75	35-70	25-50	20-45	20-30	5-10
	33-60	Extremely gravelly loamy sand, extremely gravelly sand	GM, GP, GP-GM	A-1	0	0-10	15-30	10-25	5-20	0-15	0-14	NP
Lesbut-----	0-4	Gravelly loam	GC, GC-GM	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	25-35	5-15
	4-18	Gravelly loam, very gravelly loam, extremely gravelly sandy loam	GC-GM, GM, SC-SM, SM	A-2, A-4	0	10-35	35-75	30-70	30-50	25-45	20-30	NP-10
	18-60	Stratified extremely cobbly coarse sand to extremely gravelly loamy sand	GP	A-1	0	15-65	25-45	20-40	10-30	0-5	0-14	NP
48: Dawtonia-----	0-4	Very gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GC-GM, GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
49: Dawtonia-----	0-4	Very gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GC-GM, GM	A-4, A-2	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
Dawtonia, cold--	0-2	Very gravelly loam	GC-GM, GM	A-4, A-2	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	2-9	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	9-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
50: Dawtonia, cold--	0-2	Very gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	2-9	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-6, A-4, A-2	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	9-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
Dawtonia-----	0-4	Very gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-6, A-2, A-4	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GC-GM, GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
51: Dawtonia-----	0-4	Gravelly loam	GC-GM, GM	A-4, A-2	0	0-5	55-80	50-75	35-60	25-55	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-6, A-4, A-2	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GC-GM, GM	A-4, A-2	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
Frailton-----	0-2	Gravelly loam	SM, SC-SM, GM, GC-GM	A-4	0-5	0-10	55-80	50-75	45-65	35-50	20-30	NP-10
	2-6	Very gravelly loam, very gravelly sandy loam	GM, GC-GM	A-1, A-2	0-5	0-10	35-50	30-50	25-45	20-35	20-30	NP-10
	6-11	Extremely flaggy loam, extremely flaggy sandy loam	CL-ML	A-4	35-50	40-65	100	90-100	75-95	55-75	20-30	5-10
	11-15	Weathered bedrock			---	---	---	---	---	---	---	---
52: Dawtonia-----	0-3	Gravelly loam	GC-GM, GM	A-2, A-4	0	0-5	55-80	50-75	35-60	25-55	25-35	5-10
	3-34	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	34-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
52: Kehar-----	0-4	Gravelly loam	CL, GC, GM, ML	A-4, A-6	0	0-10	55-80	50-75	40-70	35-60	30-40	5-15
	4-35	Gravelly silty clay, clay loam, gravelly clay loam	CH, CL	A-7	0	0-15	65-90	60-90	50-85	50-75	45-70	20-40
	35-60	Very gravelly clay loam, very gravelly clay	GC	A-2, A-7	0	5-30	35-65	30-60	20-50	20-45	40-60	20-35
Soen-----	0-7	Gravelly loam	GC, SC	A-2, A-6	0	0-10	55-80	50-75	40-60	30-50	25-35	10-15
	7-20	Silty clay loam, clay, clay loam	CH, CL	A-7	0	0-15	75-100	75-100	60-85	50-75	45-70	20-40
	20-60	Cobbly clay loam, gravelly clay loam	CL, GC	A-7	0	0-20	55-80	50-75	40-60	35-55	40-45	15-20
53: Dawtonia-----	0-3	Very gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	3-10	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	10-60	Very gravelly loam	GC-GM, GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
Rock outcrop----	---	---	---	---	---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
54: Dawtonia-----	0-4	Gravelly loam	GC-GM, GM	A-2, A-4	0	0-5	55-80	50-75	35-60	25-55	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GC-GM, GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
Custco-----	0-4	Very gravelly loam	GC, GC-GM	A-2, A-4, A-6	0	10-20	35-60	30-55	20-50	15-40	25-35	5-15
	4-17	Very gravelly loam, extremely gravelly loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-10	25-55	20-50	15-45	15-40	25-40	5-15
	17-60	Very gravelly loam, extremely gravelly loamy sand, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	0-35	20-50	15-45	5-35	5-20	15-25	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
55: Dawtonia-----	0-4	Very gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GC-GM, GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
Dacont-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0-1	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	3-28	Very gravelly loam, very gravelly clay loam	GC	A-2	0-1	0-15	35-55	30-50	25-40	20-35	30-40	10-15
	28-41	Extremely gravelly loam, very gravelly sandy loam, very gravelly loam	GC-GM	A-2	0-1	10-40	25-50	20-45	15-35	10-30	25-30	5-10
	41-60	Very gravelly sandy loam, extremely cobbly loam	GC-GM, GP-GC	A-1, A-2	0-1	45-60	15-30	10-25	10-25	5-20	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
56: Derwell-----	0-2	Gravelly very fine sandy loam	GM, SM	A-2, A-4	0	0	60-85	55-80	50-80	30-50	25-30	NP-5
	2-15	Very fine sandy loam, sandy loam	ML, SM	A-4	0	0	90-100	85-95	65-80	35-65	25-30	NP-5
	15-45	Gravelly fine sandy loam, very gravelly sandy loam	GM, SM	A-1, A-2	0	0	45-85	45-75	35-70	20-35	25-30	NP-5
	45-60	Extremely gravelly sand	GP, GP-GM	A-1	0	0-30	20-30	15-25	5-20	0-10	0-14	NP
Whiteknob-----	0-4	Gravelly loam	GC-GM, SC-SM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	4-11	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	0-20	10-60	10-50	10-40	5-30	15-20	NP-5
	11-60	Very gravelly sand, extremely gravelly loamy coarse sand, extremely gravelly sand	GP, GP-GM	A-1	0	0-50	10-40	5-35	0-25	0-10	10-15	NP-5
57: Derwell-----	0-2	Gravelly very fine sandy loam	GM, SM	A-4, A-2	0	0	60-85	55-80	50-80	30-50	25-30	NP-5
	2-15	Very fine sandy loam, sandy loam	ML, SM	A-4	0	0	90-100	85-95	65-80	35-65	25-30	NP-5
	15-45	Gravelly fine sandy loam, very gravelly sandy loam	GM, SM	A-1, A-2	0	0	45-85	45-75	35-70	20-35	25-30	NP-5
	45-60	Extremely gravelly sand	GP, GP-GM	A-1	0	0-30	20-30	15-25	5-20	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
57: Zer-----	0-5	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	5-14	Gravelly loam, gravelly silt loam, very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	14-26	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
	26-60	Very gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GM, GP-GM	A-1	0-30	5-45	20-45	15-40	10-30	5-15	0-14	NP
Packmo-----	0-3	Gravelly loam	CL-ML, GC-GM, SC-SM	A-4	0-3	0-10	60-80	55-75	35-65	35-60	25-30	5-10
	3-10	Gravelly loam, very gravelly sandy loam	CL-ML, GC-GM, SC-SM	A-4, A-2	0-3	0-15	45-80	40-75	30-65	30-60	25-30	5-10
	10-40	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GC-GM	A-2	0-10	10-45	25-50	20-45	15-35	10-35	25-30	5-10
	40-60	Extremely gravelly loamy coarse sand, extremely gravelly loamy sand	GP, GP-GM	A-1	0-20	30-45	20-35	15-30	0-20	0-10	20-25	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
58: Dickeypeak-----	0-3	Silty clay loam	ML	A-7	0	0	95-100	90-100	60-95	50-80	40-50	10-20
	3-32	Loam, clay loam	CL	A-6	0	0	90-100	85-100	55-90	50-80	35-40	10-15
	32-52	Loam, fine sandy loam	CL	A-6	0	0	90-100	85-100	55-90	50-65	35-40	10-15
	52-60	Gravelly fine sandy loam	GC-GM	A-2, A-4	0	0-10	55-80	50-75	45-70	25-45	20-30	5-10
	60-65	Very gravelly loamy coarse sand	GM	A-1	0	0-10	30-55	25-50	15-30	5-15	0-14	NP
Bigrant-----	0-19	Silt loam	CL-ML, ML	A-4	0	0	95-100	95-100	80-95	75-90	25-35	5-10
	19-25	Silty clay loam, clay loam	CL	A-6	0	0	95-100	95-100	75-100	75-100	30-40	15-25
	25-29	Clay	CL	A-6	0	0	95-100	95-100	75-100	75-100	30-40	15-25
	29-60	Loam	CL	A-6	0	0-10	90-100	85-100	75-100	75-100	30-35	10-15
59: Donkehill-----	0-3	Very gravelly loam	GC-GM	A-2, A-4	0	0-15	40-60	40-60	35-55	25-45	20-25	5-10
	3-13	Very gravelly loam, extremely cobble loam	GC	A-2, A-6	0	0-45	25-55	20-50	20-50	15-40	25-35	10-20
	13-16	Extremely gravelly sandy loam, extremely gravelly loam	GP, GP-GM	A-1	0	0	10-20	10-20	5-15	0-10	15-20	NP-5
	16-20	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
60: Donkehill-----	0-3	Very gravelly loam	GC-GM	A-2, A-4	0	0-15	40-60	40-60	35-55	25-45	20-25	5-10
	3-13	Very gravelly loam, extremely cobble loam	GC	A-2, A-6	0	0-45	25-55	20-50	20-50	15-40	25-35	10-20
	13-16	Extremely gravelly sandy loam, extremely gravelly loam	GP, GP-GM	A-1	0	0	10-20	10-20	5-15	0-10	15-20	NP-5
	16-20	Unweathered bedrock			---	---	---	---	---	---	---	---
Zeebar-----	0-8	Gravelly loam	GM, ML, SM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	8-22	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	22-35	Very gravelly sandy clay loam, very gravelly clay loam, gravelly clay loam	GC	A-2, A-6, A-7	0-5	10-20	30-55	25-50	20-45	20-40	30-45	10-20
	35-49	Extremely gravelly clay loam, extremely gravelly sandy clay loam	GC, GP-GC	A-2	0-5	10-45	20-35	10-25	5-25	5-20	30-45	10-20
	49-60	Extremely gravelly loam, extremely gravelly sandy loam, extremely gravelly sandy clay loam	GC-GM, GP-GC	A-2	0-5	10-45	20-35	10-25	10-20	5-20	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
61: Donkehill-----	0-3	Very gravelly loam	GC-GM	A-2, A-4	0	0-15	40-60	40-60	35-55	25-45	20-25	5-10
	3-13	Very gravelly loam, extremely cobbly loam	GC	A-2, A-6	0	0-45	25-55	20-50	20-50	15-40	25-35	10-20
	13-16	Extremely gravelly sandy loam, extremely gravelly loam	GP, GP-GM	A-1	0	0	10-20	10-20	5-15	0-10	15-20	NP-5
	16-20	Unweathered bedrock			---	---	---	---	---	---	---	---
Zeebar-----	0-3	Gravelly loam	GM, ML, SM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	3-13	Gravelly loam, very gravelly loam	SC-SM, GC-GM	A-2, A-4	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	13-19	Very gravelly sandy clay loam, very gravelly clay loam, gravelly clay loam	GC	A-2, A-6, A-7	0-5	10-20	30-55	25-50	20-45	20-40	30-45	10-20
	19-29	Extremely gravelly clay loam, extremely gravelly sandy clay loam	GC, GP-GC	A-2	0-5	10-45	20-35	10-25	5-25	5-20	30-45	10-20
	29-60	Extremely gravelly loam, extremely gravelly sandy loam, extremely gravelly sandy clay loam	GC-GM, GP-GC	A-2	0-5	10-45	20-35	10-25	10-20	5-20	25-30	5-10
62: Dumps, mine-----	---	---	---	---	---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
63: Escarlo-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0	0-5	60-80	55-75	45-60	35-45	25-30	5-10
	3-11	Loam	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	60-80	50-65	25-35	5-15
	11-32	Gravelly clay loam, gravelly clay	GC, SC	A-6	0	0-5	55-80	50-75	40-65	35-50	30-35	10-15
	32-48	Gravelly sandy clay loam, very gravelly sandy clay loam, gravelly clay loam	GC	A-2, A-6	0	0-10	45-75	40-70	30-60	25-50	30-35	10-15
	48-60	Clay loam, gravelly clay loam, gravelly clay	CL, GC, SC	A-6	0	0-10	70-90	65-90	60-80	45-65	35-40	15-20
Heathcoat-----	0-2	Gravelly silt loam	GC, SC	A-2, A-6	0	0-10	55-80	50-75	40-60	30-50	25-35	10-15
	2-10	Loam, silty clay loam, gravelly clay loam	CL	A-6	0	0-5	70-100	65-100	60-90	55-85	30-40	10-20
	10-47	Silty clay, gravelly clay, clay loam	CH, CL, GC	A-7	0	0-5	65-100	60-100	50-95	45-80	40-55	20-30
	47-60	Very gravelly clay loam, cobbly clay loam, very gravelly clay	CL, GC	A-2, A-6, A-7	0	5-30	35-85	30-80	25-70	20-60	35-45	15-20
64: Escarlo-----	0-11	Silt loam	CL-ML	A-4	0	0	85-100	80-100	60-80	50-65	25-30	5-10
	11-47	Gravelly clay loam, gravelly clay	GC, SC	A-6	0	0-5	55-80	50-75	40-65	35-50	30-35	10-15
	47-60	Gravelly sandy clay loam, very gravelly sandy clay loam, gravelly clay loam	GC	A-2, A-6	0	0-10	45-75	40-70	30-60	25-50	30-35	10-15

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
64: Heathcoat-----	0-2	Gravelly silt loam	GC, SC	A-2, A-6	0	0-10	55-80	50-75	40-60	30-50	25-35	10-15
	2-10	Loam, silty clay loam, gravelly clay loam	CL	A-6	0	0-5	70-100	65-100	60-90	55-85	30-40	10-20
	10-47	Silty clay, gravelly clay, clay loam	CH, CL, GC	A-7	0	0-5	65-100	60-100	50-95	45-80	40-55	20-30
	47-60	Very gravelly clay loam, cobble clay loam, very gravelly clay	CL, GC	A-2, A-6, A-7	0	5-30	35-85	30-80	25-70	20-60	35-45	15-20
65: Ezbin-----	0-11	Very stony loam	GC-GM	A-4	10-20	15-40	45-60	45-60	35-50	35-45	25-30	5-10
	11-30	Gravelly clay loam, cobble clay loam, very gravelly clay loam	GC	A-2, A-7	0-20	5-30	30-60	25-55	20-45	20-40	40-45	15-20
	30-50	Very stony loam, very cobble clay loam, very cobble loam	GC, GM	A-2, A-6, A-7	15-25	30-50	40-55	40-55	25-45	25-40	35-45	10-20
	50-60	Extremely stony loam	GC	A-2, A-6	30-45	35-65	40-65	35-60	25-50	25-45	30-35	10-15

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
65: Zeebar-----	0-8	Gravelly loam	GM, ML, SM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	8-22	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	22-35	Very gravelly sandy clay loam, very gravelly clay loam, gravelly clay loam	GC	A-2, A-6, A-7	0-5	10-20	30-55	25-50	20-45	20-40	30-45	10-20
	35-49	Extremely gravelly clay loam, extremely gravelly sandy clay loam	GC, GP-GC	A-2	0-5	10-45	20-35	10-25	5-25	5-20	30-45	10-20
	49-60	Extremely gravelly loam, extremely gravelly sandy loam, extremely gravelly sandy clay loam	GC-GM, GP-GC	A-2	0-5	10-45	20-35	10-25	10-20	5-20	25-30	5-10
Nielsen-----	0-3	Cobbly loam	CL-ML, GC-GM	A-4	0	25-45	70-95	70-90	45-75	45-70	25-30	5-10
	3-15	Very gravelly clay loam, extremely gravelly clay loam, very gravelly loam	GC	A-2	0	0-30	25-55	20-50	15-40	15-35	30-40	10-20
	15-25	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
66: Fandow-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4, A-2	0	0-5	55-80	50-75	45-65	30-50	20-30	5-10
	3-12	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2	0	0-10	40-55	35-50	25-45	15-30	20-30	5-10
	12-14	Cemented			---	---	---	---	---	---	---	---
	14-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand, extremely gravelly loamy sand	GP	A-1	0	5-25	15-30	10-25	5-15	0-5	0-14	NP
67: Fandow-----	0-3	Gravelly loam	GC-GM, SC-SM	A-2, A-4	0	0-5	55-80	50-75	45-65	30-50	20-30	5-10
	3-12	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2	0	0-10	40-55	35-50	25-45	15-30	20-30	5-10
	12-14	Cemented			---	---	---	---	---	---	---	---
	14-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand, extremely gravelly loamy sand	GP	A-1	0	5-25	15-30	10-25	5-15	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
67: Arbus-----	0-4	Gravelly loam	GC-GM, SC-SM	A-4	0	0-5	55-80	50-75	45-65	35-50	20-30	5-10
	4-16	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2	0	0-5	40-55	35-50	25-45	15-30	20-30	5-10
	16-20	Extremely gravelly loam, extremely gravelly sandy loam	GC-GM, GP-GC	A-2	0	0-15	25-35	15-25	10-20	5-15	20-30	5-10
	20-60	Extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP	A-1	0	0-15	15-35	10-25	5-15	0-5	0-14	NP
68: Farvant-----	0-2	Channery fine sandy loam	SC-SM	A-2, A-4	0-2	15-40	65-90	60-85	50-75	15-40	25-30	5-10
	2-7	Gravelly sandy loam, very gravelly sandy loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-80	35-75	25-60	15-40	25-30	5-10
	7-11	Extremely flaggy sandy loam	GC-GM, GP-GC	A-2	5-25	40-65	35-55	25-45	10-25	5-20	25-30	5-10
	11-15	Weathered bedrock			---	---	---	---	---	---	---	---
Badland-----	---	---	---	---	---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
68: Gradco-----	0-3	Channery fine sandy loam	SC-SM	A-2, A-4	0-10	10-30	65-90	60-85	50-75	15-40	25-30	5-10
	3-14	Very flaggy fine sandy loam, very gravelly loam, very gravelly sandy loam	GC-GM	A-2, A-4	15-30	10-20	40-70	35-65	25-50	20-45	25-30	5-10
	14-29	Extremely flaggy fine sandy loam, extremely flaggy loam, extremely gravelly loam	GC-GM	A-2, A-4	5-30	10-50	25-60	25-55	20-50	15-40	25-30	5-10
	29-33	Weathered bedrock			---	---	---	---	---	---	---	---
69: Farvant-----	0-3	Gravelly sandy loam	GC-GM, SC-SM	A-2, A-4	0-2	0-10	55-80	50-75	45-60	20-40	25-30	5-10
	3-15	Gravelly sandy loam, very gravelly sandy loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-80	35-75	25-60	15-40	25-30	5-10
	15-19	Weathered bedrock			---	---	---	---	---	---	---	---
Sactus-----	0-2	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	30-55	25-50	20-45	20-40	20-30	5-10
	2-9	Extremely gravelly loam, extremely flaggy loam	GC-GM	A-2	0	10-25	20-35	15-30	10-25	10-20	20-30	5-10
	9-19	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
69: Dawtonia-----	0-5	Gravelly loam	GC-GM, GM	A-2, A-4	0	0-5	55-80	50-75	35-60	25-55	25-35	5-10
	5-24	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
70: Fezip-----	0-6	Fine sandy loam	ML, SM	A-4	0	0	100	95-100	70-85	40-55	20-25	NP-5
	6-16	Loamy sand	SM	A-2	0	0-5	100	95-100	75-90	20-35	0-20	NP
	16-26	Fine sandy loam, gravelly sandy loam, loamy fine sand	SM	A-2	0	0-5	75-100	60-100	55-80	20-35	20-25	NP-5
	26-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand	GP	A-1	0-15	5-30	20-30	10-20	5-10	0-5	0-20	NP
Lemroi-----	0-8	Silt loam	ML	A-4	0	0	90-100	80-100	75-95	55-85	15-25	NP-5
	8-15	Silt loam, gravelly silt loam	CL-ML, GM, ML, SC-SM	A-2, A-4	0	0	60-100	50-90	40-85	30-75	15-25	NP-10
	15-23	Extremely gravelly loam, extremely gravelly sandy loam	GC-GM, GM	A-1	0	4-10	25-35	15-25	10-20	8-15	15-25	NP-10
	23-60	Extremely gravelly loamy coarse sand, extremely gravelly loamy sand	GM	A-1	0	10-20	25-35	10-20	10-20	5-15	10-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
70: Redfish-----	0-5	Fine sandy loam	ML, SM	A-4	0	0-5	100	85-100	70-85	40-55	20-25	NP-5
	5-10	Very gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-1, A-2, A-4	0	0-10	50-75	40-70	30-60	15-40	20-25	NP-5
	10-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand	GP	A-1	0	25-45	20-40	10-35	5-15	0-5	0-14	NP
71: Fezip-----	0-6	Fine sandy loam	ML, SM	A-4	0	0	100	95-100	70-85	40-55	20-25	NP-5
	6-16	Loamy sand	SM	A-2	0	0-5	100	95-100	75-90	20-35	0-14	NP
	16-26	Fine sandy loam, gravelly sandy loam, loamy fine sand	SM	A-2	0	0-5	75-100	60-100	55-80	20-35	20-25	NP-5
	26-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand	GP	A-1	0-15	5-30	20-30	10-20	5-10	0-5	0-14	NP
Redfish-----	0-5	Fine sandy loam	ML, SM	A-4	0	0-5	100	85-100	70-85	40-55	20-25	NP-5
	5-10	Very gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-1, A-2, A-4	0	0-10	50-75	40-70	30-60	15-40	20-25	NP-5
	10-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand	GP	A-1	0	25-45	20-40	10-35	5-15	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
71: Copperbasin-----	0-10	Very gravelly fine sandy loam	GM	A-1, A-2	0	0-20	30-60	25-55	25-50	15-35	25-30	NP-5
	10-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GM, GP, GP-GM	A-1	0-20	25-65	20-40	15-35	15-25	0-15	0-14	NP
72: Firebox-----	0-3	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0	0	60-80	55-75	50-70	40-60	20-30	NP-10
	3-15	Very gravelly sandy loam, very gravelly loam	GM	A-1, A-2	0	0	40-60	35-50	25-40	15-30	20-25	NP-5
	15-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand	GP	A-1	0-5	0-10	10-30	10-20	5-10	0-5	0-14	NP
73: Firebox-----	0-10	Extremely stony loam	CL-ML, SC-SM	A-4	10-25	50-70	80-95	75-90	50-70	40-60	25-30	5-10
	10-16	Extremely cobble sandy loam	GC-GM, GM, SC-SM, SM	A-1, A-2	10-25	50-65	60-75	55-70	40-60	20-35	20-30	NP-10
	16-60	Extremely cobble loamy sand, extremely cobble loamy coarse sand	SM	A-1	10-25	50-75	60-75	40-65	20-45	10-20	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
74: Frailton-----	0-2	Gravelly sandy loam	SC-SM, SM	A-1, A-2	0-5	0-10	60-80	50-75	30-50	15-25	20-30	NP-10
	2-10	Very gravelly loam, very gravelly sandy loam	GC-GM, GM	A-1, A-2	0-5	0-10	35-50	30-50	25-45	20-35	20-30	NP-10
	10-14	Extremely flaggy loam, extremely flaggy sandy loam	CL-ML	A-4	35-50	40-65	100	90-100	75-95	55-75	20-30	5-10
	14-18	Weathered bedrock			---	---	---	---	---	---	---	---
Dawtonia-----	0-4	Gravelly loam	GC-GM, GM	A-2, A-4	0	0-5	55-80	50-75	35-60	25-55	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GC-GM, GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
75: Frailton-----	0-1	Very gravelly loam	GC-GM, GM	A-1, A-2	0-5	0-10	35-50	30-50	25-45	20-35	20-30	NP-10
	1-11	Very gravelly loam, very gravelly sandy loam	GC-GM, GM	A-1, A-2	0-5	0-10	35-50	30-50	25-45	20-35	20-30	NP-10
	11-15	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
75: Gradco-----	0-4	Gravelly loam	CL-ML, GC-GM	A-4	0	0-10	55-80	50-75	35-65	35-60	25-30	5-10
	4-9	Very flaggy fine sandy loam, very gravelly loam, very gravelly sandy loam	GC-GM	A-2, A-4	15-30	10-20	40-70	35-65	25-50	20-45	25-30	5-10
	9-30	Extremely flaggy fine sandy loam, extremely flaggy loam, extremely gravelly loam	GC-GM	A-2, A-4	5-30	10-50	25-60	25-55	20-50	15-40	25-30	5-10
	30-34	Weathered bedrock			---	---	---	---	---	---	---	---
76: Friedman-----	0-8	Gravelly loam	GC, GC-GM, SC, SC-SM	A-4, A-6	0	0-5	65-80	60-75	40-60	35-50	25-35	5-15
	8-13	Gravelly loam, very gravelly loam	GC	A-2, A-6	0-5	0-15	30-65	25-60	20-55	20-50	30-35	10-15
	13-60	Extremely gravelly clay, very gravelly clay	GC	A-2	0-10	10-25	20-50	15-45	10-40	10-35	50-65	25-35
Reck-----	0-3	Gravelly loam	GC, GC-GM, SC, SC-SM	A-4, A-6	0-5	5-15	50-75	50-75	40-60	35-50	25-35	5-15
	3-11	Very gravelly clay loam	GC	A-2, A-6, A-7	0-10	10-30	35-60	30-55	20-50	20-40	35-50	15-25
	11-60	Very cobbly clay, very gravelly clay	GC	A-7	0-10	10-50	40-60	35-55	35-50	35-50	50-80	25-45
Goldhill-----	0-5	Loam	CL	A-6	0	0-10	75-100	75-100	60-85	55-80	30-35	10-15
	5-58	Gravelly clay, gravelly clay loam	CH, CL, GC	A-7	0-5	0-10	55-80	50-75	40-65	40-60	40-65	20-40
	58-60	Very gravelly clay loam	GC	A-2, A-6	0-10	5-20	35-60	30-55	20-45	20-40	35-40	15-20

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
77: Gaciba-----	0-4	Very gravelly loam	GC-GM	A-2, A-4	0-5	0-10	30-55	25-50	20-45	15-40	20-25	5-10
	4-12	Very gravelly loam	GC-GM	A-2, A-4	0-10	0-15	30-55	25-50	20-45	15-40	25-30	5-10
	12-16	Unweathered bedrock			---	---	---	---	---	---	---	---
Cronks-----	0-10	Very cobbly loam	GC-GM	A-2, A-4	0-5	30-50	50-70	50-70	40-60	30-50	25-30	5-10
	10-35	Very cobbly clay, very cobbly clay loam	CH, CL, GC	A-7	0-5	30-50	50-70	50-70	45-70	45-65	45-55	20-30
	35-55	Very cobbly silt loam, very cobbly clay loam	CL, GC	A-6	0-5	30-60	50-70	50-70	45-70	35-60	30-40	10-15
	55-70	Very cobbly silt loam, very cobbly clay loam	CL, GC	A-6	0-5	30-60	50-70	50-70	45-70	35-60	30-40	10-15
78: Gaciba-----	0-4	Gravelly loam	SC-SM, GC-GM	A-4	0-10	0-15	55-80	50-75	35-60	35-50	20-25	5-10
	4-15	Very gravelly loam	GC-GM	A-2, A-4	0-10	0-15	30-55	25-50	20-45	15-40	25-30	5-10
	15-19	Unweathered bedrock			---	---	---	---	---	---	---	---
Dacont-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0-1	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	3-28	Very gravelly loam, very gravelly clay loam	GC	A-2	0-1	0-15	35-55	30-50	25-40	20-35	30-40	10-15
	28-41	Extremely gravelly loam, very gravelly sandy loam, very gravelly loam	GC-GM	A-2	0-1	10-40	25-50	20-45	15-35	10-30	25-30	5-10
	41-60	Very gravelly sandy loam, extremely cobbly loam	GC-GM, GP-GC	A-1, A-2	0-1	45-60	15-30	10-25	10-25	5-20	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
79: Gany-----	0-6	Gravelly loam	GC-GM	A-2, A-4	0-5	0-10	55-70	50-65	30-60	30-50	25-30	5-10
	6-21	Very gravelly loam	GC-GM	A-2, A-4	0-10	0-25	30-60	25-55	20-50	20-40	25-30	5-10
	21-60	Extremely gravelly sandy loam, extremely gravelly loam	GM, GP-GM	A-1	0-15	5-45	20-40	10-35	10-30	5-25	25-30	NP-5
80: Geemore-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0	0	55-80	50-75	40-70	35-50	20-25	5-10
	3-39	Very gravelly clay loam	GC	A-2, A-6, A-7	0	0	30-55	25-50	20-45	20-40	35-45	15-25
	39-45	Very gravelly clay loam	GC	A-2, A-6, A-7	0	0	30-55	25-50	20-45	20-40	35-45	15-25
	45-60	Very gravelly loam	GC	A-2, A-6	0	0-5	30-55	25-50	25-45	20-40	25-35	10-15
81: Germer-----	0-3	Very gravelly loam	GC	A-2, A-6	0-5	0-10	45-60	40-55	30-50	30-45	30-35	10-15
	3-9	Gravelly clay loam	CH, CL	A-7	0-5	0-15	55-80	50-75	40-65	40-60	45-55	20-30
	9-21	Very gravelly loam	GC	A-2, A-6	0-10	0-25	40-65	35-60	25-50	25-45	30-35	10-15
	21-60	Extremely gravelly sandy loam, extremely gravelly coarse sandy loam	GM, GP-GM	A-1	0-15	10-30	20-40	15-35	10-25	5-20	25-30	NP-5
Dawtonia-----	0-3	Very gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	3-10	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-6, A-4, A-2	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	10-60	Very gravelly loam	GC-GM, GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
82: Goldaho-----	0-6	Gravelly loam	GC-GM, SC-SM	A-4	0	0-5	55-80	50-75	45-65	35-50	25-30	5-10
	6-17	Clay, silty clay	CH, CL	A-7	0	0	75-100	75-100	60-95	50-90	45-65	20-40
	17-37	Gravelly silty clay	CH, CL, GC	A-7	0	0-5	55-80	50-75	45-70	40-70	45-60	20-35
	37-61	Clay loam, silty clay	CH, CL	A-7	0	0	75-100	75-100	50-95	50-90	40-60	20-35
Zer-----	0-2	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	2-5	Gravelly loam, gravelly silt loam, very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	5-14	Gravelly sandy loam, gravelly loam, very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0-30	0-25	35-60	30-60	25-50	20-40	15-25	NP-10
	14-26	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
	26-60	Very gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GM, GP-GM	A-1	0-30	5-45	20-45	15-40	10-30	5-15	0-14	NP
83: Goldhill-----	0-3	Loam	CL	A-6	0	0-10	75-100	75-100	60-85	55-80	30-35	10-15
	3-7	Clay loam	CL	A-6	0-5	0-10	75-100	75-100	60-85	60-85	35-40	15-20
	7-40	Gravelly clay, gravelly clay loam	CH, CL, GC	A-7	0-5	0-10	55-80	50-75	40-65	40-60	40-65	20-40
	40-60	Very gravelly clay loam	GC	A-2, A-6	0-10	5-20	35-60	30-55	20-45	20-40	35-40	15-20

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
83: Zeebar-----	0-3	Gravelly loam	GM, ML, SM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	3-21	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	21-60	Extremely gravelly clay loam, extremely gravelly sandy clay loam	GC, GP-GC	A-2	0-5	10-45	20-35	10-25	5-25	5-20	30-45	10-20
84: Goosebury-----	0-2	Very gravelly loam	GC-GM, GM	A-2	0	0-10	30-55	25-50	20-45	20-35	25-35	5-10
	2-11	Very gravelly loam, gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-10	35-75	30-70	25-60	25-50	25-35	5-10
	11-41	Extremely gravelly sandy loam, very gravelly sandy loam	GC-GM, SC-SM	A-2	0-5	0-10	20-70	15-50	10-40	5-35	25-30	5-10
	41-60	Extremely gravelly loamy coarse sand, extremely gravelly loamy sand	GP-GM, GP, GM	A-1	0-10	10-25	15-30	10-25	5-20	0-15	25-30	NP-5
85: Goosebury-----	0-3	Very gravelly loam	GM, GC-GM	A-2	0	0-10	30-55	25-50	20-45	20-35	25-35	5-10
	3-22	Very gravelly loam, gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-10	35-75	30-70	25-60	25-50	25-35	5-10
	22-60	Extremely gravelly sandy loam, very gravelly sandy loam	GC-GM, SC-SM	A-2	0-5	0-10	20-70	15-50	10-40	5-35	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
86: Goosebury-----	0-11	Gravelly loam	GC-GM, SC-SM	A-4	0	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	11-22	Very gravelly loam, gravelly loam	GM, GC-GM	A-2, A-4	0-5	0-10	35-75	30-70	25-60	25-50	25-35	5-10
	22-60	Extremely gravelly sandy loam, very gravelly sandy loam	SC-SM, GC-GM	A-2	0-5	0-10	20-70	15-50	10-40	5-35	25-30	5-10
Windcoat-----	0-5	Gravelly silt loam	ML, CL-ML, GC-GM, GM	A-4	0	0-5	55-80	50-75	45-70	40-60	20-30	NP-10
	5-15	Gravelly silt loam, gravelly loam	CL-ML, ML, GC-GM, GM	A-4	0	0-5	55-80	50-75	45-70	35-60	20-30	NP-10
	15-18	Indurated			---	---	---	---	---	---	---	---
	18-60	Extremely gravelly coarse sandy loam, extremely gravelly loamy coarse sand	GM, GP-GM	A-1	0	0-30	15-40	15-35	5-25	5-15	0-14	NP
87: Gradco-----	0-2	Channery fine sandy loam	SC-SM	A-2, A-4	0-10	10-30	65-90	60-85	50-75	15-40	25-30	5-10
	2-7	Very flaggy fine sandy loam, very gravelly loam, very gravelly sandy loam	GC-GM	A-2, A-4	15-30	10-20	40-70	35-65	25-50	20-45	25-30	5-10
	7-33	Extremely flaggy fine sandy loam, extremely flaggy loam, extremely gravelly loam	GC-GM	A-2, A-4	5-30	10-50	25-60	25-55	20-50	15-40	25-30	5-10
	33-37	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
87: Farvant-----	0-3	Gravelly sandy loam	SC-SM, GC-GM	A-2, A-4	0-2	0-10	55-80	50-75	45-60	20-40	25-30	5-10
	3-8	Gravelly sandy loam, very gravelly sandy loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-80	35-75	25-60	15-40	25-30	5-10
	8-14	Extremely flaggy sandy loam	GC-GM, GP-GC	A-2	5-25	40-65	35-55	25-45	10-25	5-20	25-30	5-10
	14-18	Weathered bedrock			---	---	---	---	---	---	---	---
88: Gradco-----	0-2	Channery fine sandy loam	SC-SM	A-2, A-4	0-10	10-30	65-90	60-85	50-75	15-40	25-30	5-10
	2-7	Very flaggy fine sandy loam, very gravelly loam, very gravelly sandy loam	GC-GM	A-2, A-4	15-30	10-20	40-70	35-65	25-50	20-45	25-30	5-10
	7-33	Extremely flaggy fine sandy loam, extremely flaggy loam, extremely gravelly loam	GC-GM	A-2, A-4	5-30	10-50	25-60	25-55	20-50	15-40	25-30	5-10
	33-37	Weathered bedrock			---	---	---	---	---	---	---	---
Farvant-----	0-3	Gravelly sandy loam	GC-GM, SC-SM	A-2, A-4	0-2	0-10	55-80	50-75	45-60	20-40	25-30	5-10
	3-8	Gravelly sandy loam, very gravelly sandy loam, very gravelly loam	SC-SM, GC-GM	A-2, A-4	0-5	0-10	40-80	35-75	25-60	15-40	25-30	5-10
	8-14	Extremely flaggy sandy loam	GC-GM, GP-GC	A-2	5-25	40-65	35-55	25-45	10-25	5-20	25-30	5-10
	14-18	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
89: Hagenbarth-----	0-11	Silt loam	CL-ML, ML	A-4	0	0	90-100	85-100	80-90	70-80	20-30	NP-10
	11-22	Loam, silt loam	CL	A-6	0	5-10	90-95	90-95	85-95	75-85	35-40	15-20
	22-60	Gravelly sandy clay loam, very gravelly sandy clay loam, gravelly clay loam	SC, GC	A-2, A-6	0	10-20	55-80	50-70	45-65	30-45	30-40	10-20
Brabas-----	0-3	Very gravelly loam	GC, GC-GM	A-2, A-6	0	0-10	50-65	35-50	25-50	20-45	25-35	5-15
	3-8	Gravelly clay loam	CL, GC	A-6	0	0	65-85	55-75	40-70	35-65	30-40	10-20
	8-17	Silty clay	CH, CL	A-7	0	0	85-100	75-100	65-90	60-85	45-55	25-35
	17-30	Extremely gravelly loam, extremely gravelly loamy sand	GC-GM, GM, GP-GM	A-1, A-2	0	25-40	20-35	15-25	10-25	5-20	20-30	NP-10
	30-60	Gravelly silty clay, silty clay	CH, CL	A-7	0	0	80-95	70-90	60-85	55-80	45-55	25-35
90: Heathcoat-----	0-2	Gravelly silt loam	GC, SC	A-2, A-6	0	0-10	55-80	50-75	40-60	30-50	25-35	10-15
	2-10	Loam, silty clay loam, gravelly clay loam	CL	A-6	0	0-5	70-100	65-100	60-90	55-85	30-40	10-20
	10-47	Silty clay, gravelly clay, clay loam	CH, CL, GC	A-7	0	0-5	65-100	60-100	50-95	45-80	40-55	20-30
	47-60	Very gravelly clay loam, cobbley clay loam, very gravelly clay	CL, GC	A-2, A-6, A-7	0	5-30	35-85	30-80	25-70	20-60	35-45	15-20

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
91: Heathcoat-----	0-2	Gravelly silt loam	GC, SC	A-2, A-6	0	0-10	55-80	50-75	40-60	30-50	25-35	10-15
	2-10	Loam, silty clay loam, gravelly clay loam	CL	A-6	0	0-5	70-100	65-100	60-90	55-85	30-40	10-20
	10-47	Silty clay, gravelly clay, clay loam	CH, CL, GC	A-7	0	0-5	65-100	60-100	50-95	45-80	40-55	20-30
	47-60	Very gravelly clay loam, cobble clay loam, very gravelly clay	CL, GC	A-2, A-6, A-7	0	5-30	35-85	30-80	25-70	20-60	35-45	15-20
Goldhill-----	0-6	Gravelly loam	GC, SC	A-2, A-6	0	0-10	55-80	50-75	40-60	30-50	25-30	10-15
	6-11	Very gravelly clay loam	GC	A-2	0	0-10	30-55	25-50	20-40	15-35	35-45	15-20
	11-40	Gravelly clay, silty clay	CH, CL	A-7	0	0-5	80-90	70-90	55-75	50-75	45-60	20-30
	40-60	Loam, sandy clay loam	CL, SC	A-6	0	0	75-90	75-90	50-80	40-65	30-35	10-15
92: Heathcoat-----	0-6	Loam	CL	A-6	0	0-5	80-100	75-100	60-80	50-65	25-35	10-15
	6-10	Loam, silty clay loam, gravelly clay loam	CL	A-6	0	0-5	70-100	65-100	60-90	55-85	30-40	10-20
	10-23	Silty clay, gravelly clay, clay loam	CH, CL, GC	A-7	0	0-5	65-100	60-100	50-95	45-80	40-55	20-30
	23-60	Very gravelly clay loam, cobble clay loam, very gravelly clay	CL, GC	A-2, A-6, A-7	0	5-30	35-85	30-80	25-70	20-60	35-45	15-20
Soen-----	0-6	Loam	CL	A-6	0	0-5	80-100	75-100	60-80	50-65	25-35	10-15
	6-30	Silty clay loam, clay, clay loam	CH, CL	A-7	0	0-15	75-100	75-100	60-85	50-75	45-70	20-40
	30-60	Cobbly clay loam, gravelly clay loam	CL, GC	A-7	0	0-20	55-80	50-75	40-60	35-55	40-45	15-20

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
93: Howcan-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	3-18	Gravelly loam	GC, SC	A-6	0	0-15	55-80	50-75	45-65	35-50	30-40	10-15
	18-44	Very cobbly loam, very gravelly loam, very gravelly sandy clay loam	GC	A-2	0	5-45	30-60	25-55	15-45	15-35	30-40	10-15
	44-64	Very gravelly loam, extremely gravelly sandy loam, very cobbly sandy loam	GC-GM, SC-SM	A-2	0	5-45	30-70	25-60	10-45	10-35	25-30	5-10
Hagenbarth-----	0-11	Silt loam	CL-ML, ML	A-4	0	0	90-100	85-100	80-90	70-80	20-30	NP-10
	11-22	Loam, silt loam	CL	A-6	0	5-10	90-95	90-95	85-95	75-85	35-40	15-20
	22-60	Gravelly sandy clay loam, very gravelly sandy clay loam, gravelly clay loam	GC, SC	A-2, A-6	0	10-20	55-80	50-70	45-65	30-45	30-40	10-20
Hutchley-----	0-4	Gravelly loam	GC-GM, GM	A-2, A-4	0	0-10	55-65	50-60	35-45	25-40	25-30	5-10
	4-16	Very gravelly clay loam, very cobbly clay loam	GC	A-2, A-6, A-7	0-10	10-45	50-65	30-60	25-55	20-40	35-45	15-20
	16-20	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
94: Hutchley-----	0-1	Gravelly loam	GC-GM, GM	A-2, A-4	0	0-10	55-65	50-60	35-45	25-40	25-30	5-10
	1-3	Very gravelly loam, extremely gravelly loam, very cobbly clay loam	GC	A-2, A-6	0-5	10-40	45-70	20-60	15-55	10-40	30-40	10-15
	3-13	Very gravelly clay loam, very cobbly clay loam	GC	A-2, A-6, A-7	0-10	10-45	50-65	30-60	25-55	20-40	35-45	15-20
	13-17	Unweathered bedrock			---	---	---	---	---	---	---	---
Nurkey-----	0-1	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	35-55	35-50	25-45	25-40	25-30	5-10
	1-5	Very gravelly loam	GC, GC-GM	A-2, A-4, A-6	0	0-10	35-55	35-50	25-45	25-40	25-35	5-15
	5-54	Very gravelly sandy clay loam, extremely gravelly loam	GC	A-2	0-5	25-35	30-55	25-50	15-40	15-35	30-35	10-15
	54-60	Extremely gravelly sandy loam, extremely gravelly fine sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0-5	5-40	20-40	15-35	10-25	5-20	25-30	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
95: Ike-----	0-3	Stony loam	ML, GM	A-2, A-6	1-10	5-10	60-75	55-65	40-60	30-55	35-40	10-15
	3-12	Very gravelly loam, very gravelly silt loam	SM	A-2	0-10	5-15	65-90	30-55	20-40	10-35	35-40	10-15
	12-17	Extremely stony loam, extremely gravelly sandy loam, extremely gravelly silt loam	GM, GP, GP-GM	A-2, A-6	0-40	5-40	15-65	10-60	5-50	0-40	35-40	10-15
	17-21	Unweathered bedrock			---	---	---	---	---	---	---	---
Rock outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
Jimbee-----	0-6	Gravelly loam	GC, GC-GM	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	25-35	5-15
	6-16	Very gravelly sandy loam, very gravelly loam, very stony loam	GC, GC-GM	A-2	0-25	0-15	30-45	25-40	15-30	15-25	25-35	5-15
	16-20	Unweathered bedrock			---	---	---	---	---	---	---	---
96: Inferno-----	0-7	Gravelly clay loam	GC, GM	A-6	0	0-10	55-80	50-75	45-65	35-50	40-45	20-25
	7-12	Gravelly clay loam	GM, GC	A-6	0	0-10	55-80	50-75	45-65	35-50	40-45	20-25
	12-36	Gravelly clay	GC, GM	A-7	0	0-10	60-80	55-75	35-60	30-50	45-60	25-40
	36-54	Gravelly clay	GC, GM	A-7	0-5	0-10	60-80	55-75	35-60	30-50	45-60	25-40
	54-60	Extremely gravelly clay	GC	A-2	0-10	0-25	15-30	10-25	5-20	5-20	45-60	25-40
Grouseville----	0-7	Silt loam	CL	A-6	0	0-5	95-100	90-95	85-90	70-80	30-35	10-15
	7-18	Clay loam	ML, CL	A-6, A-7	0	0-5	95-100	90-100	85-90	70-80	35-45	10-20
	18-60	Clay loam, clay	CL	A-7	0	0-10	75-90	75-90	65-85	55-75	40-50	20-30

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
97: Jimbee-----	0-6	Gravelly loam	GC, GC-GM	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	25-35	5-15
	6-16	Very gravelly sandy loam, very gravelly loam, very stony loam	GC, GC-GM	A-2	0-25	0-15	30-45	25-40	15-30	15-25	25-35	5-15
	16-20	Unweathered bedrock			---	---	---	---	---	---	---	---
Rock outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
Ike-----	0-3	Stony loam	ML, GM	A-2, A-6	1-10	5-10	60-75	55-65	40-60	30-55	35-40	10-15
	3-12	Very gravelly loam, very gravelly silt loam	SM	A-2	0-10	5-15	65-90	30-55	20-40	10-35	35-40	10-15
	12-17	Extremely stony loam, extremely gravelly sandy loam, extremely gravelly silt loam	GM, GP, GP-GM	A-2, A-6	0-40	5-40	15-65	10-60	5-50	0-40	35-40	10-15
	17-21	Unweathered bedrock			---	---	---	---	---	---	---	---
98: Justesen-----	0-4	Loam	ML	A-4	0	0	100	100	85-95	60-75	25-35	NP-10
	4-40	Silty clay loam, clay loam	CL-ML, CL	A-4, A-6	0	0	100	85-100	80-95	65-90	25-35	5-15
	40-60	Loam, stony loam, silty clay loam	CL-ML, CL	A-4, A-6	0-10	0-15	95-100	85-100	75-95	55-90	25-35	5-15
Drage-----	0-3	Gravelly loam	CL, GC	A-6	0	0-15	65-90	60-80	55-80	40-65	30-40	10-15
	3-10	Gravelly loam	CL, GC	A-6	0	0-10	65-90	60-80	55-80	40-65	30-40	10-15
	10-40	Very gravelly clay loam	GC	A-2, A-7	0-5	0-10	30-50	25-45	20-45	15-40	40-50	15-25
	40-60	Extremely gravelly loam, extremely gravelly sandy loam	GC-GM, GP-GC	A-2	0-5	5-40	25-40	20-35	10-20	5-15	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
99: Kadletz-----	0-2	Very gravelly loam	GC-GM	A-2	0	0-10	30-55	25-50	20-45	15-35	20-30	5-10
	2-5	Gravelly loam	SC-SM, GC-GM	A-4	0	0-10	55-80	50-75	45-65	35-50	20-30	5-10
	5-8	Very gravelly loam	GC-GM	A-2	0-10	0-10	30-55	25-50	20-45	15-35	20-30	5-10
	8-12	Very gravelly loamy sand	GP-GM, GM	A-1	0-10	0-10	30-55	25-50	10-40	5-25	0-14	NP
	12-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand	GP, GP-GM	A-1	0-10	5-15	15-35	15-30	5-20	0-10	0-14	NP
100: Kehar-----	0-7	Gravelly loam	CL, GC, GM, ML	A-4, A-6	0	0-10	55-80	50-75	40-70	35-60	30-40	5-15
	7-31	Gravelly silty clay, clay loam, gravelly clay loam	CL, CH	A-7	0	0-15	65-90	60-90	50-85	50-75	45-70	20-40
	31-60	Very gravelly clay loam, very gravelly clay	GC	A-2, A-7	0	5-30	35-65	30-60	20-50	20-45	40-60	20-35
101: Kehar-----	0-4	Very gravelly loam	GC-GM, GC	A-2, A-4, A-6	0	0-15	40-65	35-60	25-50	25-45	25-35	5-15
	4-34	Gravelly silty clay, clay loam, gravelly clay loam	CH, CL	A-7	0	0-15	65-90	60-90	50-85	50-75	45-70	20-40
	34-45	Very gravelly sandy clay loam, very gravelly loam	SC, GC	A-2	0	0-25	40-65	35-60	15-45	10-30	30-40	10-20
	45-60	Very gravelly clay loam, very gravelly clay	GC	A-2, A-7	0	5-30	35-65	30-60	20-50	20-45	40-60	20-35

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
101: Kehar, eroded---	0-16	Gravelly clay	CL, CH, GC, SC	A-7	0	0-10	55-80	50-75	40-70	40-60	45-70	25-40
	16-60	Gravelly silty clay, clay loam, gravelly clay loam	CH, CL	A-7	0	0-15	65-90	60-90	50-85	50-75	45-70	20-40
102: Ketchum-----	0-10	Very gravelly loam	GC-GM	A-2	0	0-5	30-60	25-50	20-40	15-35	20-25	5-10
	10-36	Very gravelly sandy loam, very cobbly sandy loam, very gravelly loam	GC-GM, SC-SM	A-2	0	5-45	30-70	25-60	15-45	10-35	20-25	5-10
	36-60	Extremely gravelly sandy loam, extremely cobbly sandy loam	GP, GP-GC, GC-GM	A-2	0	10-55	15-55	10-40	5-30	0-25	20-25	5-10
103: Ketchum, cold---	0-2	Cobbly loam	CL-ML, SC-SM	A-4	0	20-35	75-95	70-90	45-70	40-60	20-25	5-10
	2-53	Very gravelly sandy loam, very cobbly sandy loam, very gravelly loam	GC-GM, SC-SM	A-2	0	5-45	30-70	25-60	15-45	10-35	20-25	5-10
	53-60	Extremely gravelly sandy loam, extremely cobbly sandy loam	GP, GC-GM, GP-GC	A-2	0	10-55	15-55	10-40	5-30	0-25	20-25	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
103: Ketchum-----	0-3	Cobbly loam	SC-SM, CL-ML	A-4	0	20-35	75-95	70-90	45-70	40-60	20-25	5-10
	3-24	Very gravelly sandy loam, very cobbly sandy loam, very gravelly loam	GC-GM, SC-SM	A-2	0	5-45	30-70	25-60	15-45	10-35	20-25	5-10
	24-60	Extremely gravelly sandy loam, extremely cobbly sandy loam	GC-GM, GP, GP-GC	A-2	0	10-55	15-55	10-40	5-30	0-25	20-25	5-10
104: Klug-----	0-10	Gravelly loam	ML, CL-ML, GC-GM, GM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-30	NP-10
	10-27	Very gravelly loam, very gravelly sandy loam	GM, GC-GM	A-1, A-2	0	0-10	30-50	25-45	20-40	10-35	20-30	NP-10
	27-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM, GC-GM	A-1, A-2	0-5	15-50	15-45	10-40	10-30	5-25	20-30	NP-10
105: Klug-----	0-4	Gravelly loam	GM, CL-ML, GC-GM, ML	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-30	NP-10
	4-20	Very gravelly loam, very gravelly sandy loam	GM, GC-GM	A-1, A-2	0	0-10	30-50	25-45	20-40	10-35	20-30	NP-10
	20-60	Extremely gravelly loam, extremely gravelly sandy loam	GP-GM, GC-GM, GM	A-1, A-2	0-5	15-50	15-45	10-40	10-30	5-25	20-30	NP-10
Gaciba-----	0-3	Cobbly loam	CL-ML, GC-GM	A-4	0-10	25-35	70-95	70-90	45-75	45-75	20-25	5-10
	3-18	Very gravelly loam	GC-GM	A-2, A-4	0-10	0-15	30-55	25-50	20-45	15-40	25-30	5-10
	18-22	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
105: Dacont-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0-1	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	3-28	Very gravelly loam, very gravelly clay loam	GC	A-2	0-1	0-15	35-55	30-50	25-40	20-35	30-40	10-15
	28-41	Extremely gravelly loam, very gravelly sandy loam, very gravelly loam	GC-GM	A-2	0-1	10-40	25-50	20-45	15-35	10-30	25-30	5-10
	41-60	Very gravelly sandy loam, extremely cobble loam	GP-GC, GC-GM	A-1, A-2	0-1	45-60	15-30	10-25	10-25	5-20	25-30	5-10
106: Klug-----	0-4	Gravelly loam	GM, ML, CL-ML, GC-GM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-30	NP-10
	4-20	Very gravelly loam, very gravelly sandy loam	GC-GM, GM	A-2, A-1	0	0-10	30-50	25-45	20-40	10-35	20-30	NP-10
	20-60	Extremely gravelly loam, extremely gravelly sandy loam	GP-GM, GM, GC-GM	A-1, A-2	0-5	15-50	15-45	10-40	10-30	5-25	20-30	NP-10
Povey-----	0-5	Gravelly loam	GM, CL-ML, GC-GM, ML	A-4	0	0-10	65-85	60-80	45-65	40-60	20-30	NP-10
	5-25	Very gravelly loam, very gravelly sandy loam, very cobble loam	GC-GM	A-2	0-5	0-35	35-55	30-50	25-40	20-35	25-30	5-10
	25-60	Very gravelly sandy loam, extremely gravelly sandy loam, extremely gravelly loam	GC-GM, GM	A-1, A-2	0-25	10-45	30-55	25-50	20-40	10-40	20-30	NP-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
107: Klug-----	0-4	Very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0	0-5	30-55	25-50	20-50	15-40	20-30	NP-10
	4-10	Very gravelly loam, very gravelly sandy loam	GM, GC-GM	A-1, A-2	0	0-10	30-50	25-45	20-40	10-35	20-30	NP-10
	10-60	Extremely gravelly loam, extremely gravelly sandy loam	GP-GM, GC-GM, GM	A-1, A-2	0-5	15-50	15-45	10-40	10-30	5-25	20-30	NP-10
Povey-----	0-5	Gravelly loam	ML, CL-ML, GC-GM, GM	A-4	0	0-10	65-85	60-80	45-65	40-60	20-30	NP-10
	5-25	Very gravelly loam, very gravelly sandy loam, very cobbly loam	GC-GM	A-2	0-5	0-35	35-55	30-50	25-40	20-35	25-30	5-10
	25-60	Very gravelly sandy loam, extremely gravelly sandy loam, extremely gravelly loam	GC-GM, GM	A-1, A-2	0-25	10-45	30-55	25-50	20-40	10-40	20-30	NP-10
108: Klug-----	0-4	Gravelly loam	CL-ML, GC-GM, GM, ML	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-30	NP-10
	4-10	Very gravelly loam, very gravelly sandy loam	GC-GM, GM	A-1, A-2	0	0-10	30-50	25-45	20-40	10-35	20-30	NP-10
	10-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM, GC-GM	A-1, A-2	0-5	15-50	15-45	10-40	10-30	5-25	20-30	NP-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
108: Zeebar-----	0-4	Gravelly loam	SM, GM, ML	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	4-30	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	30-60	Extremely gravelly clay loam, extremely gravelly sandy clay loam	GP-GC, GC	A-2	0-5	10-45	20-35	10-25	5-25	5-20	30-45	10-20
109: Lacrol-----	0-6	Gravelly loam	CL, CL-ML, GC, GC-GM	A-4, A-6	0	0-5	60-80	60-75	50-70	40-65	25-35	5-15
	6-60	Clay, gravelly clay, silty clay	CL, CH	A-7	0	0-20	60-100	55-100	55-95	50-85	45-65	20-35
Friedman-----	0-4	Gravelly loam	GC, GC-GM, SC, SC-SM	A-4, A-6	0	0-5	65-80	60-75	40-60	35-50	25-35	5-15
	4-19	Gravelly loam, very gravelly loam	GC	A-6, A-2	0-5	0-15	30-65	25-60	20-55	20-50	30-35	10-15
	19-60	Very gravelly clay loam	GC	A-2	0-5	0-20	30-55	25-50	20-40	20-35	45-65	20-35
110: Lag-----	0-2	Very cobbly loam	GC-GM	A-2, A-4	0-5	45-55	50-60	40-60	35-55	25-45	25-30	5-10
	2-44	Extremely gravelly loam, very cobbly loam, very gravelly loam	GC-GM	A-4, A-2	0-5	0-55	30-75	25-70	20-55	15-50	25-30	5-10
	44-60	Extremely gravelly loam, extremely cobbly loam, extremely cobbly sandy loam	GP-GC, GC-GM	A-2	0-5	0-50	15-50	10-45	10-35	5-30	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
111: Lag-----	0-10	Very cobbly loam	GC-GM	A-2, A-4	0-5	45-55	50-60	40-60	35-55	25-45	25-30	5-10
	10-35	Extremely gravelly loam, very cobbly loam, very gravelly loam	GC-GM	A-2, A-4	0-5	0-55	30-75	25-70	20-55	15-50	25-30	5-10
	35-61	Extremely gravelly loam, extremely cobbly loam, extremely cobbly sandy loam	GC-GM, GP-GC	A-2	0-5	0-50	15-50	10-45	10-35	5-30	25-30	5-10
112: Lag-----	0-2	Very cobbly loam	GC-GM	A-2, A-4	0-5	45-55	50-60	40-60	35-55	25-45	25-30	5-10
	2-44	Extremely gravelly loam, very cobbly loam, very gravelly loam	GC-GM	A-4, A-2	0-5	0-55	30-75	25-70	20-55	15-50	25-30	5-10
	44-60	Extremely gravelly loam, extremely cobbly loam, extremely cobbly sandy loam	GP-GC, GC-GM	A-2	0-5	0-50	15-50	10-45	10-35	5-30	25-30	5-10
Klug-----	0-4	Gravelly loam	GC-GM, CL-ML, GM, ML	A-4, A-2	0-5	0-5	55-80	50-75	40-70	30-55	20-30	NP-10
	4-20	Very gravelly loam, very gravelly sandy loam	GC-GM, GM	A-1, A-2	0	0-10	30-50	25-45	20-40	10-35	20-30	NP-10
	20-60	Extremely gravelly loam, extremely gravelly sandy loam	GC-GM, GM, GP-GM	A-1, A-2	0-5	15-50	15-45	10-40	10-30	5-25	20-30	NP-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
113: Langer-----	0-9	Gravelly sandy loam	SM	A-4, A-2	0	0-5	80-95	55-75	40-60	30-50	25-30	NP-5
	9-13	Very gravelly coarse sandy loam	SM, SP-SM	A-1, A-2	0	0-5	80-95	25-50	10-40	5-35	25-30	NP-5
	13-60	Very gravelly loamy coarse sand, extremely gravelly loamy coarse sand, extremely gravelly coarse sand	SP-SM, SP	A-1	0	0-10	75-85	10-30	0-20	0-10	0-14	NP
114: Leadore-----	0-3	Gravelly loam	CL-ML, GC-GM	A-4	0	0-10	60-75	55-75	40-65	35-60	20-25	5-10
	3-16	Gravelly loam, very gravelly loam, very gravelly sandy loam	SC-SM, GC-GM	A-2, A-4	0	0-15	50-80	45-75	35-60	20-50	25-30	5-10
	16-60	Extremely cobbly loamy sand, extremely cobbly sand, extremely gravelly loamy sand	GM, GP-GM	A-1	0-10	30-65	25-55	20-50	10-40	5-20	0-14	NP
115: Leatherman-----	0-11	Very gravelly loam	GM, GC-GM	A-1, A-2	0	0-10	40-70	35-65	30-65	20-50	20-30	NP-10
	11-16	Indurated			---	---	---	---	---	---	---	---
	16-60	Extremely gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	5-25	15-30	10-20	5-15	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
115: Arbus-----	0-3	Gravelly loam	SC-SM, GC-GM	A-4	0	0-5	55-80	50-75	45-65	35-50	20-30	5-10
	3-12	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2	0	0-5	40-55	35-50	25-45	15-30	20-30	5-10
	12-60	Extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP	A-1	0	0-15	15-35	10-25	5-15	0-5	0-14	NP
116: Leatherman-----	0-11	Very gravelly loam	GC-GM, GM	A-2, A-1	0	0-10	40-70	35-65	30-65	20-50	20-30	NP-10
	11-16	Indurated			---	---	---	---	---	---	---	---
	16-60	Extremely gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	5-25	15-30	10-20	5-15	0-10	0-14	NP
Bluedome-----	0-3	Gravelly loam	GM, ML	A-4	0	0	60-75	55-70	40-70	35-65	20-25	NP-5
	3-22	Loam, gravelly loam, gravelly sandy loam	ML, GM	A-4	0	0	65-95	55-90	40-85	35-70	20-25	NP-5
	22-30	Cemented			---	---	---	---	---	---	---	---
	30-60	Extremely gravelly loamy coarse sand, extremely gravelly sandy loam, extremely gravelly loamy sand	SP, GP-GM, GP, SP-SM	A-1	0	0-15	15-55	10-25	5-15	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
117: Lemco-----	0-11	Loam	CL-ML	A-4	0	0-5	75-100	75-100	50-75	50-75	25-30	5-10
	11-36	Very gravelly clay	GC	A-7, A-2	0	0-10	40-60	35-55	30-50	25-45	45-55	20-30
	36-48	Gravelly clay loam	GC, CL	A-6, A-7	0	0-5	55-80	50-75	45-70	40-60	35-45	15-20
	48-61	Gravelly loam	SC-SM, GC-GM	A-2, A-4	0	0-5	55-80	50-75	40-60	30-50	20-25	5-10
Friedman-----	0-2	Gravelly loam	GC, GC-GM, SC, SC-SM	A-4, A-6	0	0-5	65-80	60-75	40-60	35-50	25-35	5-15
	2-18	Gravelly loam, very gravelly loam	GC	A-2, A-6	0-5	0-15	30-65	25-60	20-55	20-50	30-35	10-15
	18-37	Very gravelly clay loam	GC	A-2	0-5	0-20	30-55	25-50	20-40	20-35	45-65	20-35
	37-60	Extremely gravelly clay, very gravelly clay	GC	A-2	0-10	10-25	20-50	15-45	10-40	10-35	50-65	25-35
118: Lemhi-----	0-13	Loam	CL, CL-ML	A-6, A-4	0	0	100	95-100	70-90	60-80	25-40	5-20
	13-21	Loam, silt loam	CL, CL-ML	A-4, A-6	0	0	100	95-100	65-90	55-75	25-40	5-20
	21-24	Gravelly loamy sand, loamy sand	SM	A-1, A-2	0	0	75-95	65-90	20-50	10-30	10-15	NP-5
	24-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand	GP-GM	A-1	0	20-35	30-45	15-30	5-20	5-10	10-15	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
118: Copperbasin-----	0-6	Gravelly loam	SM	A-4, A-2	0	0-10	65-80	60-75	50-70	10-45	25-30	NP-5
	6-14	Extremely gravelly loamy fine sand, extremely gravelly loamy sand, very gravelly sandy loam	GM, GP-GM	A-1	0-20	30-50	20-45	15-40	15-30	5-30	25-30	NP-5
	14-27	Extremely cobble sand, extremely cobble loamy sand, extremely gravelly loamy sand	GP-GM, GP, GM	A-1	0-20	50-70	20-45	15-40	15-30	0-20	0-14	NP
	27-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GP-GM, GM, GP	A-1	0-20	25-65	20-40	15-35	15-25	0-15	0-14	NP
Lilylake-----	0-10	Muck	PT	A-8	0	0	0	0	0	0	0	NP
	10-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GP	A-1	0-5	5-80	20-30	10-20	5-10	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
119: Lemroi-----	0-8	Silt loam	ML	A-4	0	0	90-100	80-100	75-95	55-85	15-25	NP-5
	8-15	Silt loam, gravelly silt loam	CL-ML, GM, ML, SC-SM	A-2, A-4	0	0	60-100	50-90	40-85	30-75	15-25	NP-10
	15-23	Extremely gravelly loam, extremely gravelly sandy loam	GM, GC-GM	A-1	0	4-10	25-35	15-25	10-20	8-15	15-25	NP-10
	23-60	Extremely gravelly loamy coarse sand, extremely gravelly loamy sand	GM	A-1	0	10-20	25-35	10-20	10-20	5-15	10-20	NP-5
Leecreek-----	0-3	Silt loam	ML, CL-ML	A-4	0	0	90-100	90-100	85-100	80-95	20-30	NP-10
	3-18	Silt loam, gravelly silt loam, very gravelly silt loam	CL, CL-ML	A-6, A-4	0	0	50-90	50-90	40-75	35-70	20-35	NP-15
	18-60	Extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP-GM, GC-GM, GM	A-2, A-1	0	0	25-50	20-40	10-30	5-25	20-25	NP-5
120: Lemroi-----	0-8	Silt loam	ML	A-4	0	0	90-100	80-100	75-95	55-85	15-25	NP-5
	8-15	Silt loam, gravelly silt loam	CL-ML, GM, ML, SC-SM	A-4, A-2	0	0	60-100	50-90	40-85	30-75	15-25	NP-10
	15-23	Extremely gravelly loam, extremely gravelly sandy loam	GC-GM, GM	A-1	0	4-10	25-35	15-25	10-20	8-15	15-25	NP-10
	23-60	Extremely gravelly loamy coarse sand, extremely gravelly loamy sand	GM	A-1	0	10-20	25-35	10-20	10-20	5-15	10-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
120: Leecreek-----	0-3	Silt loam	CL-ML, ML	A-4	0	0	90-100	90-100	85-100	80-95	20-30	NP-10
	3-18	Silt loam, gravelly silt loam, very gravelly silt loam	CL, CL-ML	A-6, A-4	0	0	50-90	50-90	40-75	35-70	20-35	NP-15
	18-60	Extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP-GM, GC-GM, GM	A-1, A-2	0	0	25-50	20-40	10-30	5-25	20-25	NP-5
Grandjean-----	0-6	Mucky peat	PT	A-8	0	0	0	0	0	0	0	NP
	6-27	Muck	PT	A-8	0	0	0	0	0	0	0	NP
	27-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand	GP	A-1	0-10	0-30	30-40	20-30	5-10	0-5	0-14	NP
121: Lesbut-----	0-4	Gravelly loam	GC-GM, GC	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	25-35	5-15
	4-18	Gravelly loam, very gravelly loam, extremely gravelly sandy loam	SM, GC-GM, GM, SC-SM	A-2, A-4	0	10-35	35-75	30-70	30-50	25-45	20-30	NP-10
	18-60	Stratified extremely cobble coarse sand to extremely gravelly loamy sand	GP	A-1	0	15-65	25-45	20-40	10-30	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
122: Lilylake-----	0-12	Muck	PT	A-8	0	0	0	0	0	0	0	NP
	12-15	Sand, coarse sand, gravelly coarse sand	SP, SP-SM	A-1	0	0-5	85-100	70-100	35-50	0-10	0-14	NP
	15-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GP	A-1	0-5	5-80	20-30	10-20	5-10	0-5	0-14	NP
Grandjean-----	0-6	Mucky peat	PT	A-8	0	0	0	0	0	0	0	NP
	6-27	Muck	PT	A-8	0	0	0	0	0	0	0	NP
	27-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand	GP	A-1	0-10	0-30	30-40	20-30	5-10	0-5	0-14	NP
123: Mahaffey-----	0-12	Loam	CL	A-6	0	0	100	100	70-90	60-85	25-35	10-15
	12-23	Loam, silt loam	CL-ML	A-4	0	0	100	100	70-90	50-75	20-30	5-10
	23-34	Extremely gravelly sandy loam, extremely gravelly coarse sandy loam	GP-GM, GM	A-1	0	15-30	20-40	20-40	10-25	5-15	15-25	NP-5
	34-61	Extremely cobble loamy coarse sand, extremely gravelly loamy sand	GP-GM	A-1	20-30	45-55	25-40	20-30	10-20	5-10	10-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
123: Copperbasin-----	0-7	Gravelly fine sandy loam	SM	A-2, A-4	0	0-10	65-80	60-75	50-70	10-45	25-30	NP-5
	7-14	Extremely gravelly loamy fine sand, extremely gravelly loamy sand, very gravelly sandy loam	GP-GM, GM	A-1	0-20	30-50	20-45	15-40	15-30	5-30	25-30	NP-5
	14-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GP, GM, GP-GM	A-1	0-20	25-65	20-40	15-35	15-25	0-15	0-14	NP
Wiskisprings----	0-8	Silt loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-95	45-85	25-35	5-15
	8-49	Silt loam	SC, SC-SM, CL, CL-ML	A-4, A-6	0	0	90-100	85-100	50-100	45-85	25-35	5-15
	49-54	Gravelly loam, gravelly silt loam, sandy clay loam	SC-SM, CL, CL-ML, SC	A-6, A-4	0	0	65-85	55-80	45-70	40-65	25-35	5-15
	54-60	Extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	0-15	10-30	5-25	5-20	0-10	0-14	NP
124: Meegernot-----	0-16	Gravelly loam	GC-GM, CL-ML	A-4	0	0-10	55-75	50-70	35-65	35-55	25-30	5-10
	16-41	Very gravelly loam, extremely gravelly loam	GC	A-2	0	0-15	25-50	20-45	15-40	15-35	30-35	10-15
	41-58	Extremely gravelly clay loam	GC	A-2	0	0-15	15-35	10-30	5-25	5-20	35-50	15-25
	58-66	Extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	0-15	10-30	5-25	5-20	0-10	20-25	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
125: Meegero-----	0-10	Loam	CL-ML	A-4	0	0	75-90	75-90	55-80	50-75	25-30	5-10
	10-19	Gravelly loam, gravelly silt loam	SC-SM, CL-ML, GC-GM	A-4, A-2	0	0-5	55-75	50-70	35-60	30-55	25-35	5-10
	19-29	Very gravelly loam, extremely gravelly loam	GC	A-2, A-6	0	5-40	15-60	15-55	10-50	10-45	30-40	10-15
	29-60	Extremely cobble loam, extremely gravelly loam, extremely cobble sandy loam	GC-GM, GC	A-2	0	45-65	30-60	25-50	20-40	20-35	25-35	5-15
Zeale-----	0-8	Gravelly loam	GM, ML	A-6	0-5	0-5	55-80	50-75	40-70	35-60	35-45	10-15
	8-60	Extremely gravelly sandy loam, very gravelly loam, extremely cobble loam	GM	A-2	0-5	5-60	25-50	20-50	10-40	10-35	35-40	10-15
126: Millhi-----	0-4	Silt loam	CL	A-6	0	0	90-100	90-100	85-95	80-90	20-30	10-15
	4-9	Silt loam, gravelly silt loam	CL	A-6	0	0	70-95	60-90	55-90	50-85	20-30	10-15
	9-60	Clay	CH	A-7	0	0	90-100	90-100	80-95	80-90	50-80	30-50
127: Millhi-----	0-2	Gravelly silt loam	CL, GC	A-6	0	0	60-80	55-75	50-70	40-60	20-30	10-15
	2-4	Silt loam, gravelly silt loam	CL	A-6	0	0	70-95	60-90	55-90	50-85	20-30	10-15
	4-48	Clay, clay loam, gravelly clay	CL, CH	A-7, A-6	0	0-10	70-95	65-90	60-85	50-80	35-60	20-40
	48-60	Clay	CH	A-7	0	0	90-100	90-100	80-95	80-90	50-80	30-50

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
128: Millhi-----	0-2	Gravelly silt loam	GC, CL	A-6	0	0	60-80	55-75	50-70	40-60	20-30	10-15
	2-4	Silt loam, gravelly silt loam	CL	A-6	0	0	70-95	60-90	55-90	50-85	20-30	10-15
	4-48	Clay, clay loam, gravelly clay	CL, CH	A-7, A-6	0	0-10	70-95	65-90	60-85	50-80	35-60	20-40
	48-60	Clay	CH	A-7	0	0	90-100	90-100	80-95	80-90	50-80	30-50
Millhi, eroded--	0-1	Gravelly clay	CH, CL	A-7	0	0-10	60-80	60-80	55-75	50-70	40-60	20-40
	1-60	Clay, clay loam, gravelly clay	CH, CL	A-7, A-6	0	0-10	70-95	65-90	60-85	50-80	35-60	20-40
129: Millhi-----	0-2	Gravelly silt loam	CL, GC	A-6	0	0	60-80	55-75	50-70	40-60	20-30	10-15
	2-4	Silt loam, gravelly silt loam	CL	A-6	0	0	70-95	60-90	55-90	50-85	20-30	10-15
	4-48	Clay, clay loam, gravelly clay	CH, CL	A-6, A-7	0	0-10	70-95	65-90	60-85	50-80	35-60	20-40
	48-60	Clay	CH	A-7	0	0	90-100	90-100	80-95	80-90	50-80	30-50
Badland-----	---	---	---	---	---	---	---	---	---	---	---	---
130: Millhi-----	0-2	Gravelly silt loam	CL, GC	A-6	0	0	60-80	55-75	50-70	40-60	20-30	10-15
	2-4	Silt loam, gravelly silt loam	CL	A-6	0	0	70-95	60-90	55-90	50-85	20-30	10-15
	4-48	Clay, clay loam, gravelly clay	CH, CL	A-7, A-6	0	0-10	70-95	65-90	60-85	50-80	35-60	20-40
	48-60	Clay	CH	A-7	0	0	90-100	90-100	80-95	80-90	50-80	30-50

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
130: Lacrol-----	0-2	Silt loam	CL, CL-ML	A-4, A-6	0	0-10	85-100	85-100	60-90	50-85	25-35	5-15
	2-7	Loam, clay loam, gravelly clay loam	CL	A-6	0	0-5	75-100	70-100	60-90	50-75	30-35	10-15
	7-60	Clay, gravelly clay, silty clay	CH, CL	A-7	0	0-20	60-100	55-100	55-95	50-85	45-65	20-35
131: Misfire-----	0-3	Silt loam	ML, CL-ML	A-4	0	0	90-100	90-100	85-100	80-95	20-30	NP-10
	3-12	Gravelly silt loam, gravelly loam, sandy loam	GC, GC-GM, SC, SC-SM	A-4, A-6	0	0-10	60-90	55-85	40-60	30-45	25-35	5-15
	12-60	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1	0-15	15-45	30-50	25-45	10-30	5-25	20-30	NP-5
Pattee-----	0-4	Silt loam	CL-ML, ML	A-4	0	0	90-100	90-100	85-100	75-95	20-30	NP-10
	4-25	Silt loam, loam	CL-ML, ML	A-4	0	0	90-100	85-100	85-95	75-90	20-30	NP-10
	25-49	Loam, silt loam	CL-ML, ML	A-4	0	0	90-100	85-100	85-95	75-90	20-30	NP-10
	49-60	Gravelly loam, very gravelly loam, gravelly silt loam	GC-GM, GM	A-4, A-1, A-2	0	0-5	35-60	30-60	25-50	15-40	20-30	NP-10
Dawtonia-----	0-4	Very gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	4-11	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-4, A-6, A-2	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	11-60	Extremely gravelly loam, extremely gravelly sandy loam	GP-GM, GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
132: Mitring-----	0-3	Very gravelly loam	GC	A-2	0	0-10	35-50	30-50	20-45	20-30	30-40	10-15
	3-10	Very gravelly loam, extremely gravelly loam	GC	A-2	0	0-10	25-45	20-40	15-35	10-25	30-40	10-15
	10-30	Extremely gravelly sandy loam	GC-GM, GP-GC	A-2	0	0-10	15-35	10-30	5-25	5-20	25-30	5-10
	30-40	Weathered bedrock			---	---	---	---	---	---	---	---
Holinrock-----	0-2	Gravelly loam	GC-GM	A-4	0	0-10	55-75	50-70	40-60	40-50	25-30	5-10
	2-6	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	35-55	30-50	25-45	25-40	25-30	5-10
	6-24	Very gravelly loam	GC	A-2, A-6	0	0-15	35-55	30-50	25-45	25-40	30-35	10-15
	24-29	Extremely gravelly loam	GC	A-2	0	10-30	20-40	15-35	10-30	10-25	30-35	10-15
	29-33	Unweathered bedrock			---	---	---	---	---	---	---	---
133: Mogg-----	0-5	Very gravelly loam	GC-GM	A-2, A-4	0-5	5-10	40-55	35-50	25-50	20-40	25-30	5-10
	5-14	Very gravelly loam, extremely gravelly loam	GC-GM	A-2, A-4	0-10	5-30	25-55	20-50	15-40	15-40	25-30	5-10
	14-18	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
133: Dawtonia-----	0-4	Very gravelly loam	GM, GC-GM	A-4, A-2	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC-GM, GC	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GM, GC-GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GP-GM, GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
134: Mooretown-----	0-4	Loam	CL-ML	A-4	0	0	85-100	80-100	70-90	60-80	20-30	5-10
	4-43	Loam, fine sandy loam, sandy loam	SC-SM, CL-ML	A-4	0	0-5	85-100	80-100	60-80	45-65	20-30	5-10
	43-60	Stratified extremely gravelly loamy sand to fine sandy loam	SC-SM, SM	A-2, A-4	0	0-5	30-95	25-90	10-60	5-50	10-20	NP-5
Blackfoot-----	0-19	Loam	ML	A-4	0	0	95-100	95-100	65-75	55-70	20-35	NP-10
	19-36	Loam	ML	A-4	0	0	95-100	95-100	65-75	55-70	20-35	NP-10
	36-60	Stratified fine sandy loam to silty clay loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	75-95	50-70	20-35	5-15

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
134: Borah-----	0-4	Loam	ML	A-4	0	0	90-100	85-100	65-100	60-100	15-25	NP-5
	4-12	Loam, gravelly loam, gravelly sandy loam	GM, ML	A-4, A-2	0	0-10	60-90	55-90	40-60	25-55	15-25	NP-5
	12-60	Extremely gravelly loamy sand, extremely gravelly loamy coarse sand, extremely gravelly coarse sand	GP-GM, GP	A-1	0	0-20	20-50	15-45	10-15	0-10	0-14	NP
135: Mooretown-----	0-3	Loam	CL-ML	A-4	0	0	85-100	80-100	70-90	60-80	20-30	5-10
	3-35	Loam, sandy loam	SC-SM, CL-ML	A-4	0-5	0-5	85-100	80-95	60-80	45-65	20-30	5-10
	35-60	Gravelly sandy loam, very gravelly loamy sand, extremely gravelly loamy sand	GM	A-1, A-2, A-4	0-5	0-10	20-55	15-50	15-45	15-40	20-25	NP-5
Borco-----	0-2	Very gravelly loam	GM	A-2	0	0-10	35-50	30-45	20-40	15-30	15-25	NP-5
	2-10	Gravelly loam, very gravelly sandy loam, gravelly sandy loam	GM	A-2, A-4, A-1	0	0-10	40-65	35-60	30-50	20-40	15-25	NP-5
	10-60	Extremely gravelly sand, extremely gravelly loamy coarse sand	GP-GM, GP	A-1	0	0-15	15-30	10-25	5-15	0-10	0-14	NP
136: Morphey-----	0-11	Silt loam	CL, CL-ML	A-6, A-4	0	0	95-100	90-100	80-100	80-95	25-35	5-15
	11-19	Silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	75-90	70-90	35-45	15-25
	19-60	Silty clay loam, silty clay, clay	CH, CL	A-7	0	0-5	90-100	85-100	70-85	65-85	45-55	25-35

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
137: Morphey-----	0-11	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	90-100	80-100	80-95	25-35	5-15
	11-19	Silty clay loam	CL	A-6, A-7	0	0	95-100	90-100	75-90	70-90	35-45	15-25
	19-60	Silty clay loam, silty clay, clay	CL, CH	A-7	0	0-5	90-100	85-100	70-85	65-85	45-55	25-35
138: Mountainboy----	0-6	Gravelly silt loam	ML, GM	A-4	0	0	60-80	55-70	50-65	40-60	20-25	NP-5
	6-11	Gravelly loam	GM, ML	A-4	0	0	60-80	55-70	50-65	40-60	20-25	NP-5
	11-16	Very gravelly silt loam, very gravelly loam	GC-GM, GC	A-2	0	0-5	45-60	40-55	35-50	25-35	25-35	5-15
	16-19	Extremely gravelly coarse sandy loam	GP-GM	A-1	0	5-10	15-25	10-20	10-15	5-10	20-25	NP-5
	19-20	Cemented			---	---	---	---	---	---	---	---
	20-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sandy loam	GP	A-1	0	5-10	15-30	10-25	5-10	0-5	0-14	NP
139: Mountainboy----	0-5	Gravelly silt loam	ML, GM	A-4	0	0	60-80	55-70	50-65	40-60	20-25	NP-5
	5-18	Very gravelly silt loam, very gravelly loam	GC, GC-GM	A-2	0	0-5	45-60	40-55	35-50	25-35	25-35	5-15
	18-19	Cemented			---	---	---	---	---	---	---	---
	19-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sandy loam	GP	A-1	0	5-10	15-30	10-25	5-10	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
140: Nicholia-----	0-2	Gravelly loam	SM	A-4	0	0	75-85	60-70	50-65	35-50	20-30	NP-5
	2-14	Gravelly loam, loam	CL-ML, ML, SC-SM, SM	A-4	0	0	75-95	70-90	60-75	35-55	20-30	NP-10
	14-15	Indurated			---	---	---	---	---	---	---	---
	15-60	Extremely gravelly loamy coarse sand, extremely gravelly loamy sand	GP	A-1	0	0-5	15-30	10-25	5-10	0-5	0-14	NP
Goosebury-----	0-2	Very gravelly loam	GM, GC-GM	A-2	0	0-10	30-55	25-50	20-45	20-35	25-35	5-10
	2-11	Very gravelly loam, gravelly loam	GM, GC-GM	A-2, A-4	0-5	0-10	35-75	30-70	25-60	25-50	25-35	5-10
	11-41	Extremely gravelly sandy loam, very gravelly sandy loam	SC-SM, GC-GM	A-2	0-5	0-10	20-70	15-50	10-40	5-35	25-30	5-10
	41-60	Extremely gravelly loamy coarse sand, extremely gravelly loamy sand	GP-GM, GM, GP	A-1	0-10	10-25	15-30	10-25	5-20	0-15	25-30	NP-5
141: Nielsen-----	0-3	Cobbly loam	CL-ML, GC-GM	A-4	0	25-45	70-95	70-90	45-75	45-70	25-30	5-10
	3-15	Very gravelly clay loam, extremely gravelly clay loam, very gravelly loam	GC	A-2	0	0-30	25-55	20-50	15-40	15-35	30-40	10-20
	15-25	Unweathered bedrock			---	---	---	---	---	---	---	---
Gaciba-----	0-3	Cobbly loam	CL-ML, GC-GM	A-4	0-10	25-35	70-95	70-90	45-75	45-75	20-25	5-10
	3-18	Very gravelly loam	GC-GM	A-2, A-4	0-10	0-15	30-55	25-50	20-45	15-40	25-30	5-10
	18-22	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
142: Nitchly-----	0-2	Gravelly loam	CL, GC	A-2, A-6	0-5	0-10	55-75	50-70	35-65	30-60	30-35	10-15
	2-14	Very gravelly loam	GC	A-2	0-5	0-15	30-50	25-45	20-40	20-35	30-35	10-15
	14-60	Very gravelly clay loam, extremely gravelly clay loam	GC	A-2	0-5	5-15	25-45	20-45	15-35	15-30	35-45	15-25
Skibo-----	0-4	Very stony loam	GC-GM	A-2, A-4	5-10	20-45	35-70	30-65	25-55	20-45	25-30	5-10
	4-9	Extremely cobble loam	GM, GC-GM	A-2	5-10	20-50	25-55	20-50	15-45	15-35	25-35	5-10
	9-19	Extremely cobble loam, very gravelly loam	GC-GM, GM	A-2	10-25	20-65	25-55	20-50	15-45	15-35	25-35	5-10
	19-60	Extremely gravelly loam, extremely cobble sandy loam, extremely gravelly fine sandy loam	GP-GC, GC-GM	A-2	10-15	10-40	15-45	10-40	5-35	5-30	25-30	5-10
Rock outcrop----	---	---	---	---	---	---	---	---	---	---	---	
143: Nurkey-----	0-10	Gravelly loam	CL-ML, GC-GM	A-2, A-4	0	0-10	55-80	50-75	35-60	30-55	25-30	5-10
	10-51	Very gravelly clay loam, very gravelly loam	GC	A-2, A-6	0	5-35	40-65	35-60	25-50	25-45	30-40	10-15
	51-60	Extremely gravelly sandy loam, extremely gravelly fine sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0-5	5-40	20-40	15-35	10-25	5-20	25-30	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
143: Zeebar-----	0-8	Gravelly loam	SM, ML, GM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	8-22	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	22-35	Very gravelly sandy clay loam, very gravelly clay loam, gravelly clay loam	GC	A-2, A-7, A-6	0-5	10-20	30-55	25-50	20-45	20-40	30-45	10-20
	35-49	Extremely gravelly clay loam, extremely gravelly sandy clay loam	GC, GP-GC	A-2	0-5	10-45	20-35	10-25	5-25	5-20	30-45	10-20
	49-60	Extremely gravelly loam, extremely gravelly sandy loam, extremely gravelly sandy clay loam	GC-GM, GP-GC	A-2	0-5	10-45	20-35	10-25	10-20	5-20	25-30	5-10
Hutchley-----	0-5	Stony loam	GC-GM, CL-ML	A-2, A-4	5-10	5-25	65-80	60-75	40-60	30-55	25-30	5-10
	5-10	Very gravelly loam, extremely gravelly loam, very cobbly clay loam	GC	A-2, A-6	0-5	10-40	45-70	20-60	15-55	10-40	30-40	10-15
	10-18	Very gravelly clay loam, very cobbly clay loam	GC	A-6, A-7, A-2	0-10	10-45	50-65	30-60	25-55	20-40	35-45	15-20
	18-28	Unweathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
144: Nurkey-----	0-4	Stony loam	SC, SC-SM	A-6, A-4	0-10	0-10	75-85	55-75	50-60	40-45	25-35	5-15
	4-8	Gravelly loam, very gravelly loam, gravelly clay loam	SC	A-6	0-10	5-10	70-75	55-60	50-55	35-40	30-40	10-15
	8-14	Very gravelly clay loam, very gravelly loam	SC	A-2, A-6, A-7	0-10	10-25	75-85	50-65	40-60	30-48	35-45	15-25
	14-32	Very gravelly loam	SC-SM, SC	A-2, A-4, A-6	0-10	10-35	65-75	40-65	35-60	25-50	20-35	5-20
	32-60	Very gravelly sandy loam, extremely gravelly sandy loam	SC, SC-SM	A-2	0-10	10-25	55-70	50-55	35-45	20-30	15-30	NP-10
Dacont-----	0-8	Gravelly loam	GC-GM, SC-SM	A-4	0-1	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	8-15	Very gravelly loam, very gravelly clay loam	GC	A-2	0-1	0-15	35-55	30-50	25-40	20-35	30-40	10-15
	15-28	Extremely gravelly loam, very gravelly sandy loam, very gravelly loam	GC-GM	A-2	0-1	10-40	25-50	20-45	15-35	10-30	25-30	5-10
	28-60	Very gravelly sandy loam, extremely cobble loam	GC-GM, GP-GC	A-1, A-2	0-1	45-60	15-30	10-25	10-25	5-20	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
145: Nurkey-----	0-2	Very gravelly loam	GC-GM	A-4, A-2	0	0-10	35-55	35-50	25-45	25-40	25-30	5-10
	2-6	Very gravelly loam	GC, GC-GM	A-4, A-6, A-2	0	0-10	35-55	35-50	25-45	25-40	25-35	5-15
	6-19	Very gravelly clay loam, very gravelly loam	GC	A-6, A-2	0	5-35	40-65	35-60	25-50	25-45	30-40	10-15
	19-28	Very gravelly sandy clay loam, extremely gravelly loam	GC	A-2	0-5	25-35	30-55	25-50	15-40	15-35	30-35	10-15
	28-60	Extremely gravelly sandy loam, extremely gravelly fine sandy loam, very gravelly sandy loam	GP-GM, GM	A-1	0-5	5-40	20-40	15-35	10-25	5-20	25-30	NP-5
Dacont-----	0-4	Very cobbly loam	GC-GM	A-2, A-4	0-1	40-50	55-70	50-70	45-60	30-50	25-30	5-10
	4-10	Very gravelly loam, very gravelly clay loam	GC	A-2	0-1	0-15	35-55	30-50	25-40	20-35	30-40	10-15
	10-18	Extremely gravelly loam, very gravelly sandy loam, very gravelly loam	GC-GM	A-2	0-1	10-40	25-50	20-45	15-35	10-30	25-30	5-10
	18-60	Very gravelly sandy loam, extremely cobbly loam	GP-GC, GC-GM	A-1, A-2	0-1	45-60	15-30	10-25	10-25	5-20	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
146: Nurkey-----	0-1	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	35-55	35-50	25-45	25-40	25-30	5-10
	1-5	Very gravelly loam	GC-GM, GC	A-4, A-6, A-2	0	0-10	35-55	35-50	25-45	25-40	25-35	5-15
	5-54	Very gravelly sandy clay loam, extremely gravelly loam	GC	A-2	0-5	25-35	30-55	25-50	15-40	15-35	30-35	10-15
	54-60	Extremely gravelly sandy loam, extremely gravelly fine sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0-5	5-40	20-40	15-35	10-25	5-20	25-30	NP-5
Dawtonia-----	0-3	Very gravelly loam	GC-GM, GM	A-2, A-4	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	3-15	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-4, A-6, A-2	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	15-60	Extremely gravelly loam, extremely gravelly sandy loam	GP-GM, GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
147: Oxhead-----	0-3	Gravelly loam	ML, GM	A-4	0	0	60-80	55-75	50-75	45-70	25-30	NP-5
	3-21	Loam, gravelly loam	CL-ML, SC-SM	A-4	0	0	75-95	65-90	55-85	45-75	25-30	5-10
	21-61	Loam, fine sandy loam	SM, ML	A-4	0	0	95-100	80-100	60-80	45-65	25-30	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
148: Packham-----	0-5	Gravelly loam	SC-SM	A-4, A-2	0	0-5	75-80	50-75	40-65	30-50	25-30	5-10
	5-32	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GM	A-1	0	0-25	30-50	15-30	10-30	10-25	20-30	NP-5
	32-60	Very gravelly coarse sand, very gravelly loamy sand	GP, GM, GP-GM	A-1	0	0-25	30-50	25-40	10-25	0-15	0-14	NP
149: Packham-----	0-5	Gravelly loam	SC-SM	A-2, A-4	0	0-5	75-80	50-75	40-65	30-50	25-30	5-10
	5-32	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GM	A-1	0	0-25	30-50	15-30	10-30	10-25	20-30	NP-5
	32-60	Very gravelly coarse sand, very gravelly loamy sand	GM, GP, GP-GM	A-1	0	0-25	30-50	25-40	10-25	0-15	0-14	NP
Perreau-----	0-5	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	5-18	Gravelly loam, gravelly clay loam, gravelly silty clay loam	CL, GC	A-6, A-2	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	18-37	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	37-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
150: Packmo-----	0-3	Gravelly loam	SC-SM, GC-GM, CL-ML	A-4	0-3	0-10	60-80	55-75	35-65	35-60	25-30	5-10
	3-10	Gravelly loam, very gravelly sandy loam	SC-SM, GC-GM, CL-ML	A-2, A-4	0-3	0-15	45-80	40-75	30-65	30-60	25-30	5-10
	10-40	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GC-GM	A-2	0-10	10-45	25-50	20-45	15-35	10-35	25-30	5-10
	40-60	Extremely gravelly loamy coarse sand, extremely gravelly loamy sand	GP-GM, GP	A-1	0-20	30-45	20-35	15-30	0-20	0-10	20-25	NP-5
Leadore-----	0-3	Gravelly loam	GC-GM, CL-ML	A-4	0	0-10	60-75	55-75	40-65	35-60	20-25	5-10
	3-16	Gravelly loam, very gravelly loam, very gravelly sandy loam	SC-SM, GC-GM	A-2, A-4	0	0-15	50-80	45-75	35-60	20-50	25-30	5-10
	16-60	Extremely cobble loamy sand, extremely cobble sand, extremely gravelly loamy sand	GM, GP-GM	A-1	0-10	30-65	25-55	20-50	10-40	5-20	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
151: Packmo-----	0-3	Gravelly loam	CL-ML, GC-GM, SC-SM	A-4	0-3	0-10	60-80	55-75	35-65	35-60	25-30	5-10
	3-10	Gravelly loam, very gravelly sandy loam	CL-ML, GC-GM, SC-SM	A-2, A-4	0-3	0-15	45-80	40-75	30-65	30-60	25-30	5-10
	10-40	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GC-GM	A-2	0-10	10-45	25-50	20-45	15-35	10-35	25-30	5-10
	40-60	Extremely gravelly loamy coarse sand, extremely gravelly loamy sand	GP, GP-GM	A-1	0-20	30-45	20-35	15-30	0-20	0-10	20-25	NP-5
Whiteknob-----	0-4	Gravelly loam	SC-SM, GC-GM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	4-8	Loam, gravelly loam	GC-GM, CL-ML	A-4	0	0-10	55-100	50-100	40-75	35-70	20-25	5-10
	8-13	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GP-GM, GM	A-1, A-2	0	0-20	10-60	10-50	10-40	5-30	15-20	NP-5
	13-60	Very gravelly sand, extremely gravelly loamy coarse sand, extremely gravelly sand	GP, GP-GM	A-1	0	0-50	10-40	5-35	0-25	0-10	10-15	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
152: Pahsimeroi-----	0-7	Gravelly loam	GM, GC-GM, SC-SM, SM	A-4	0	0	55-80	50-75	45-65	35-50	20-30	NP-10
	7-17	Very gravelly coarse sandy loam, extremely gravelly coarse sandy loam	GM, GP-GM	A-1, A-2	0	0-35	20-55	15-50	10-35	5-30	20-25	NP-5
	17-32	Extremely cobble loamy coarse sand, extremely cobble loamy sand	SM, GM	A-1	0-10	55-80	55-80	50-75	20-35	10-25	0-14	NP
	32-60	Extremely cobble coarse sand, extremely cobble sand, extremely gravelly sand	SP-SM, SP, GP, GP-GM	A-1, A-3	0-20	30-80	30-80	25-75	15-60	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
153: Pahsimeroi-----	0-7	Gravelly loam	SM, GM, SC-SM, GC-GM	A-4	0	0	55-80	50-75	45-65	35-50	20-30	NP-10
	7-17	Very gravelly coarse sandy loam, extremely gravelly coarse sandy loam	GM, GP-GM	A-1, A-2	0	0-35	20-55	15-50	10-35	5-30	20-25	NP-5
	17-32	Extremely cobble loamy coarse sand, extremely cobble loamy sand	SM, GM	A-1	0-10	55-80	55-80	50-75	20-35	10-25	0-14	NP
	32-60	Extremely cobble coarse sand, extremely cobble sand, extremely gravelly sand	SP, GP, GP-GM, SP-SM	A-1, A-3	0-20	30-80	30-80	25-75	15-60	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
154: Pahsimeroi-----	0-5	Extremely gravelly loam	GC-GM, GM	A-1, A-2	0	15-35	30-55	15-35	10-30	10-25	20-30	NP-10
	5-12	Very gravelly coarse sandy loam, extremely gravelly coarse sandy loam	GM, GP-GM	A-1, A-2	0	0-35	20-55	15-50	10-35	5-30	20-25	NP-5
	12-25	Extremely cobble loamy coarse sand, extremely cobble loamy sand	GM, SM	A-1	0-10	55-80	55-80	50-75	20-35	10-25	0-14	NP
	25-60	Extremely cobble coarse sand, extremely cobble sand, extremely gravelly sand	GP-GM, SP-SM, SP, GP	A-1, A-3	0-20	30-80	30-80	25-75	15-60	0-10	0-14	NP
155: Paint-----	0-3	Gravelly loam	GC-GM, SC-SM	A-2, A-4	0	0-10	60-85	55-80	40-60	30-50	20-30	5-10
	3-12	Very cobble loam, very gravelly loam	GC-GM	A-2, A-4	0	5-30	45-70	40-65	35-60	25-50	20-30	5-10
	12-16	Cemented			---	---	---	---	---	---	---	---
	16-60	Extremely gravelly loamy coarse sand, extremely gravelly sand, very gravelly sandy loam	GP-GM, GP	A-1	0	0-20	10-45	5-40	0-30	0-25	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
155: Paint, cold-----	0-8	Gravelly loam	SC-SM, GC-GM	A-2, A-4	0	0-10	60-85	55-80	40-60	30-50	20-30	5-10
	8-14	Very cobbly loam, very gravelly loam	GC-GM	A-2, A-4	0	5-30	45-70	40-65	35-60	25-50	20-30	5-10
	14-15	Cemented			---	---	---	---	---	---	---	---
	15-60	Extremely gravelly loamy coarse sand, extremely gravelly sand, very gravelly sandy loam	GP, GP-GM	A-1	0	0-20	10-45	5-40	0-30	0-25	0-14	NP
156: Paint-----	0-8	Gravelly loam	GC-GM, SC-SM	A-2, A-4	0	0-10	60-85	55-80	40-60	30-50	20-30	5-10
	8-14	Very cobbly loam, very gravelly loam	GC-GM	A-2, A-4	0	5-30	45-70	40-65	35-60	25-50	20-30	5-10
	14-24	Cemented			---	---	---	---	---	---	---	---
	24-60	Extremely gravelly loamy coarse sand, extremely gravelly sand, very gravelly sandy loam	GP, GP-GM	A-1	0	0-20	10-45	5-40	0-30	0-25	0-14	NP
Bluedome-----	0-5	Loam	ML	A-4	0	0	95-100	75-100	65-95	50-75	20-25	NP-5
	5-35	Loam, gravelly loam, gravelly sandy loam	GM, ML	A-4	0	0	65-95	55-90	40-85	35-70	20-25	NP-5
	35-37	Cemented			---	---	---	---	---	---	---	---
	37-60	Extremely gravelly loamy coarse sand, extremely gravelly sandy loam, extremely gravelly loamy sand	SP-SM, SP, GP, GP-GM	A-1	0	0-15	15-55	10-25	5-15	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
157: Paint-----	0-3	Gravelly loam	SC-SM, GC-GM	A-2, A-4	0	0-10	60-85	55-80	40-60	30-50	20-30	5-10
	3-12	Very cobbly loam, very gravelly loam	GC-GM	A-2, A-4	0	5-30	45-70	40-65	35-60	25-50	20-30	5-10
	12-16	Cemented			---	---	---	---	---	---	---	---
	16-60	Extremely gravelly loamy coarse sand, extremely gravelly sand, very gravelly sandy loam	GP, GP-GM	A-1	0	0-20	10-45	5-40	0-30	0-25	0-14	NP
Whitecloud-----	0-6	Gravelly loam	SC-SM, GC-GM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	6-13	Gravelly loam, very gravelly loam, very cobbly loam	SC-SM, GC-GM	A-2, A-4	0	5-40	40-75	35-70	30-65	25-50	20-25	5-10
	13-20	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	5-20	15-55	15-50	10-40	5-30	15-20	NP-5
	20-60	Very gravelly sand, extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP-GM, GP	A-1	0	5-20	10-40	10-35	0-25	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
158: Parkay-----	0-13	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	30-50	25-45	20-45	20-40	25-30	5-10
	13-32	Very gravelly loam, extremely cobble loam, extremely cobble clay loam	CL-ML, CL, GC, GC-GM	A-2, A-4, A-6	0	10-80	55-85	50-85	30-65	25-60	25-35	5-15
	32-60	Very gravelly clay loam	GC, GC-GM, GP-GC	A-2	0	5-40	25-40	20-35	10-20	5-15	25-30	5-10
Donkehill-----	0-5	Very gravelly loam	GC-GM	A-2, A-4	0	0-15	40-60	40-60	35-55	25-45	20-25	5-10
	5-16	Very gravelly loam, extremely cobble loam	GC	A-2, A-6	0	0-45	25-55	20-50	20-50	15-40	25-35	10-20
	16-20	Unweathered bedrock			---	---	---	---	---	---	---	---
159: Parkay-----	0-4	Stony loam	SC-SM	A-4	5-10	10-15	75-80	60-70	50-60	40-45	20-30	5-10
	4-10	Gravelly loam	SC-SM	A-4	0-10	10-15	75-80	60-70	50-60	40-45	25-30	5-10
	10-20	Very gravelly loam	SC-SM	A-4, A-6	0-10	10-15	70-75	60-65	50-60	40-45	25-35	5-15
	20-35	Very gravelly loam	SC	A-6	0-5	5-15	75-85	65-75	55-65	45-50	25-35	10-15
	35-60	Very cobbly loam	SC-SM	A-2, A-4	0-10	25-30	75-85	55-65	45-60	30-45	25-30	5-10
Nurkey-----	0-8	Gravelly loam	GC-GM, CL-ML	A-4, A-2	0	0-10	55-80	50-75	35-60	30-55	25-30	5-10
	8-26	Very gravelly clay loam, very gravelly loam	GC	A-6, A-2	0	5-35	40-65	35-60	25-50	25-45	30-40	10-15
	26-60	Extremely gravelly sandy loam, extremely gravelly fine sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0-5	5-40	20-40	15-35	10-25	5-20	25-30	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
160: Parkay-----	0-4	Gravelly loam	GC-GM	A-4, A-2	0	0-10	55-75	50-70	30-60	25-50	25-30	5-10
	4-9	Gravelly loam, very cobbly loam, extremely cobbly clay loam	CL, CL-ML, GC, GC-GM	A-2, A-4, A-6	0	10-40	60-85	55-80	30-70	30-55	25-35	5-15
	9-35	Very gravelly clay loam, extremely cobbly loam, extremely cobbly clay loam, very gravelly loam	CL-ML, GC-GM, GC, CL	A-2, A-4, A-6	0	10-80	55-85	50-85	30-65	25-60	25-35	5-15
	35-60	Very gravelly sandy clay loam, very gravelly loam, extremely gravelly sandy clay loam	GP-GC, GC, GC-GM	A-2	0	0-10	30-50	25-45	10-40	5-25	25-35	5-15
Nurkey-----	0-2	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	35-55	35-50	25-45	25-40	25-30	5-10
	2-6	Very gravelly loam	GC-GM, GC	A-4, A-6, A-2	0	0-10	35-55	35-50	25-45	25-40	25-35	5-15
	6-19	Very gravelly clay loam, very gravelly loam	GC	A-2, A-6	0	5-35	40-65	35-60	25-50	25-45	30-40	10-15
	19-28	Very gravelly sandy clay loam, extremely gravelly loam	GC	A-2	0-5	25-35	30-55	25-50	15-40	15-35	30-35	10-15
	28-60	Extremely gravelly sandy loam, extremely gravelly fine sandy loam, very gravelly sandy loam	GP-GM, GM	A-1	0-5	5-40	20-40	15-35	10-25	5-20	25-30	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
161: Parkay-----	0-4	Gravelly loam	GC-GM	A-4, A-2	0	0-10	55-75	50-70	30-60	25-50	25-30	5-10
	4-9	Gravelly loam, very cobbly loam, extremely cobbly clay loam	GC, CL-ML, GC-GM, CL	A-2, A-4, A-6	0	10-40	60-85	55-80	30-70	30-55	25-35	5-15
	9-17	Very gravelly loam, extremely cobbly loam, extremely cobbly clay loam, very gravelly clay loam	CL, CL-ML, GC, GC-GM	A-2, A-4, A-6	0	10-80	55-85	50-85	30-65	25-60	25-35	5-15
	17-35	Very gravelly clay loam	GC-GM, GP-GC, GC	A-2	0	5-40	25-40	20-35	10-20	5-15	25-30	5-10
	35-60	Very gravelly sandy clay loam, very gravelly loam, extremely gravelly sandy clay loam	GP-GC, GC-GM, GC	A-2	0	0-10	30-50	25-45	10-40	5-25	25-35	5-15
	Zeebar-----	0-7	Gravelly loam	SM, ML, GM	A-4, A-2	0-5	0-5	55-80	50-75	40-70	30-55	20-25
7-24		Very gravelly sandy clay loam, very gravelly clay loam, gravelly clay loam	GC	A-6, A-7, A-2	0-5	10-20	30-55	25-50	20-45	20-40	30-45	10-20
24-60		Extremely gravelly loam, extremely gravelly sandy loam, extremely gravelly sandy clay loam	GC-GM, GP-GC	A-2	0-5	10-45	20-35	10-25	10-20	5-20	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
162: Parkay-----	0-4	Gravelly loam	GC-GM	A-2, A-4	0	0-10	55-75	50-70	30-60	25-50	25-30	5-10
	4-9	Gravelly loam, very cobbly loam, extremely cobbly clay loam	CL, CL-ML, GC, GC-GM	A-4, A-6, A-2	0	10-40	60-85	55-80	30-70	30-55	25-35	5-15
	9-35	Very gravelly loam, extremely cobbly loam, extremely cobbly clay loam, very gravelly clay loam	GC-GM, GC, CL, CL-ML	A-4, A-6, A-2	0	10-80	55-85	50-85	30-65	25-60	25-35	5-15
	35-60	Very gravelly sandy clay loam, very gravelly loam, extremely gravelly sandy clay loam	GP-GC, GC-GM, GC	A-2	0	0-10	30-50	25-45	10-40	5-25	25-35	5-15
Friedman-----	0-2	Gravelly loam	SC-SM, GC-GM, SC, GC	A-4, A-6	0	0-5	65-80	60-75	40-60	35-50	25-35	5-15
	2-18	Gravelly loam, very gravelly loam	GC	A-2, A-6	0-5	0-15	30-65	25-60	20-55	20-50	30-35	10-15
	18-37	Very gravelly clay loam	GC	A-2	0-5	0-20	30-55	25-50	20-40	20-35	45-65	20-35
	37-60	Extremely gravelly clay, very gravelly clay	GC	A-2	0-10	10-25	20-50	15-45	10-40	10-35	50-65	25-35
163: Pattee-----	0-3	Silt loam	ML, CL-ML	A-4	0	0	90-100	90-100	85-100	75-95	20-30	NP-10
	3-26	Silt loam, loam	CL-ML, ML	A-4	0	0	90-100	85-100	85-95	75-90	20-30	NP-10
	26-60	Loam, silt loam	ML, CL-ML	A-4	0	0	90-100	85-100	85-95	75-90	20-30	NP-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
163: Perreau-----	0-4	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	4-13	Gravelly loam, gravelly clay loam, gravelly silty clay loam	CL, GC	A-2, A-6	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	13-26	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	26-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10
164: Pattee-----	0-4	Silt loam	CL-ML, ML	A-4	0	0	90-100	90-100	85-100	75-95	20-30	NP-10
	4-25	Silt loam, loam	CL-ML, ML	A-4	0	0	90-100	85-100	85-95	75-90	20-30	NP-10
	25-49	Loam, silt loam	ML, CL-ML	A-4	0	0	90-100	85-100	85-95	75-90	20-30	NP-10
	49-60	Gravelly loam, very gravelly loam, gravelly silt loam	GM, GC-GM	A-2, A-4, A-1	0	0-5	35-60	30-60	25-50	15-40	20-30	NP-10
Perreau-----	0-4	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	4-13	Gravelly loam, gravelly clay loam, gravelly silty clay loam	CL, GC	A-2, A-6	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	13-26	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	26-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
165: Pedoli-----	0-2	Gravelly silt loam	GC, CL	A-6, A-2	0	0	60-80	55-75	35-65	30-55	30-35	10-15
	2-15	Gravelly clay loam	CL, GC	A-7, A-2	0	0	55-75	55-70	35-65	30-60	40-50	15-25
	15-19	Very gravelly sandy clay loam	GC	A-2	0	0	45-50	40-45	20-40	15-30	25-30	10-15
	19-32	Extremely gravelly sandy loam	GM, GP, GP-GM	A-1	0	0-15	20-35	15-25	10-20	0-15	25-30	NP-5
	32-60	Extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	10-30	15-30	10-25	5-15	0-10	0-14	NP
Dawtonia-----	0-4	Very gravelly loam	GC-GM, GM	A-4, A-2	0-5	0-25	30-55	25-50	20-50	15-40	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GM, GC-GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GP-GM, GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
166: Pedoli-----	0-2	Gravelly silt loam	CL, GC	A-2, A-6	0	0	60-80	55-75	35-65	30-55	30-35	10-15
	2-15	Gravelly clay loam	GC, CL	A-7, A-2	0	0	55-75	55-70	35-65	30-60	40-50	15-25
	15-19	Very gravelly sandy clay loam	GC	A-2	0	0	45-50	40-45	20-40	15-30	25-30	10-15
	19-32	Extremely gravelly sandy loam	GP, GM, GP-GM	A-1	0	0-15	20-35	15-25	10-20	0-15	25-30	NP-5
	32-60	Extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	10-30	15-30	10-25	5-15	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
166: Whiteknob-----	0-3	Gravelly loam	SC-SM, GC-GM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	3-7	Loam, gravelly loam	CL-ML, GC-GM	A-4	0	0-10	55-100	50-100	40-75	35-70	20-25	5-10
	7-18	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GP-GM, GM	A-1, A-2	0	0-20	10-60	10-50	10-40	5-30	15-20	NP-5
	18-60	Very gravelly sand, extremely gravelly loamy coarse sand, extremely gravelly sand	GP-GM, GP	A-1	0	0-50	10-40	5-35	0-25	0-10	10-15	NP-5
167: Penagul-----	0-2	Very gravelly clay loam	GC	A-2	0	0-10	30-50	25-45	20-40	20-35	35-45	15-25
	2-8	Very gravelly clay loam, very gravelly clay	GC	A-7, A-2	0	5-30	35-65	30-60	20-50	20-45	40-60	20-35
	8-18	Weathered bedrock			---	---	---	---	---	---	---	---
Rosebriar-----	0-2	Gravelly sandy loam	GC-GM	A-2, A-4	0	0-5	55-70	50-70	40-65	20-50	20-30	5-10
	2-12	Very gravelly clay loam, very gravelly clay	GC	A-2, A-7	0	5-20	35-65	30-60	20-50	20-45	40-60	20-35
	12-17	Extremely gravelly sandy clay loam	GC	A-2	5-20	20-30	15-30	15-30	10-25	10-20	30-40	10-20
	17-27	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
168: Perreau-----	0-4	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	4-13	Gravelly loam, gravelly clay loam, gravelly silty clay loam	GC, CL	A-6, A-2	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	13-26	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	26-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10
169: Perreau-----	0-4	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	4-13	Gravelly loam, gravelly clay loam, gravelly silty clay loam	CL, GC	A-2, A-6	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	13-26	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	26-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
170: Perreau-----	0-5	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	5-18	Gravelly loam, gravelly clay loam, gravelly silty clay loam	GC, CL	A-2, A-6	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	18-21	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	21-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10
171: Perreau-----	0-4	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	4-13	Gravelly loam, gravelly clay loam, gravelly silty clay loam	CL, GC	A-2, A-6	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	13-26	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	26-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
171: Dawtonia-----	0-4	Gravelly loam	GC-GM, GM	A-2, A-4	0	0-5	55-80	50-75	35-60	25-55	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC-GM, GC	A-6, A-2, A-4	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GM, GC-GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GP-GM, GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
172: Perreau-----	0-4	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	4-13	Gravelly loam, gravelly clay loam, gravelly silty clay loam	GC, CL	A-2, A-6	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	13-26	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	26-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
172: Dawtonia-----	0-4	Gravelly loam	GM, GC-GM	A-2, A-4	0	0-5	55-80	50-75	35-60	25-55	25-35	5-10
	4-12	Very gravelly loam, very gravelly clay loam, extremely gravelly clay loam	GC, GC-GM	A-4, A-2, A-6	0-10	0-15	25-50	20-45	15-45	10-40	25-40	5-15
	12-24	Very gravelly loam	GM, GC-GM	A-2, A-4	0-10	0-10	25-50	20-45	15-45	10-40	25-35	5-10
	24-60	Extremely gravelly loam, extremely gravelly sandy loam	GP-GM, GM	A-1	0-10	5-20	25-35	15-25	10-25	5-15	15-20	NP-5
173: Perreau-----	0-3	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	3-12	Gravelly loam, gravelly clay loam, gravelly silty clay loam	GC, CL	A-2, A-6	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	12-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10
Pattee-----	0-4	Silt loam	CL-ML, ML	A-4	0	0	90-100	90-100	85-100	75-95	20-30	NP-10
	4-25	Silt loam, loam	CL-ML, ML	A-4	0	0	90-100	85-100	85-95	75-90	20-30	NP-10
	25-49	Loam, silt loam, gravelly loam	CL-ML, ML	A-4	0	0	90-100	85-100	85-95	75-90	20-30	NP-10
	49-60	Gravelly loam, very gravelly loam, gravelly silt loam	GM, GC-GM	A-1, A-2, A-4	0	0-5	35-60	30-60	25-50	15-40	20-30	NP-10
174: Pits, gravel----	---	---	---	---	---	---	---	---	---	---	---	---
175: Pits, mine-----	---	---	---	---	---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
176: Povey-----	0-5	Very gravelly loam	GM, GC-GM	A-2	0	0-10	40-55	35-50	30-45	25-35	20-30	NP-10
	5-22	Very gravelly loam, very gravelly sandy loam, very cobbly loam	GC-GM	A-2	0-5	0-35	35-55	30-50	25-40	20-35	25-30	5-10
	22-60	Very gravelly sandy loam, extremely gravelly sandy loam, extremely gravelly loam	GC-GM, GM	A-2, A-1	0-25	10-45	30-55	25-50	20-40	10-40	20-30	NP-10
177: Povey-----	0-4	Very gravelly loam	GM, GC-GM	A-2	0	0-10	40-55	35-50	30-45	25-35	20-30	NP-10
	4-16	Very gravelly loam, very gravelly sandy loam, very cobbly loam	GC-GM	A-2	0-5	0-35	35-55	30-50	25-40	20-35	25-30	5-10
	16-60	Very gravelly sandy loam, extremely gravelly sandy loam, extremely gravelly loam	GC-GM, GM	A-1, A-2	0-25	10-45	30-55	25-50	20-40	10-40	20-30	NP-10
Klug-----	0-7	Very gravelly loam	GC-GM, GM	A-2, A-4, A-1	0	0-5	30-55	25-50	20-50	15-40	20-30	NP-10
	7-12	Very gravelly loam, very gravelly sandy loam	GC-GM, GM	A-1, A-2	0	0-10	30-50	25-45	20-40	10-35	20-30	NP-10
	12-60	Extremely gravelly loam, extremely gravelly sandy loam	GM, GP-GM, GC-GM	A-1, A-2	0-5	15-50	15-45	10-40	10-30	5-25	20-30	NP-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
178: Reck-----	0-2	Stony loam	CL-ML, GC, GC-GM, CL	A-4, A-6	5-15	10-30	55-75	50-70	35-60	35-55	25-35	5-15
	2-5	Very gravelly clay loam	GC	A-2, A-6, A-7	0-10	10-30	35-60	30-55	20-50	20-40	35-50	15-25
	5-20	Very cobbly clay, very gravelly clay	GC	A-7	0-10	10-50	40-60	35-55	35-50	35-50	50-80	25-45
	20-46	Very stony clay, very stony clay loam	SC, GC	A-2, A-7	20-30	20-30	50-75	45-70	30-50	30-45	45-70	20-40
	46-60	Very gravelly sandy loam	GC-GM	A-2	0-5	10-30	35-65	30-60	20-45	10-35	25-30	5-10
Threedot-----	0-3	Stony loam	CL, CL-ML, GC, GC-GM	A-4, A-6	5-15	10-30	55-75	50-70	35-65	35-55	25-35	5-15
	3-11	Very gravelly loam, very cobbly loam	GC, GC-GM	A-2, A-4, A-6	0	10-30	45-70	40-60	30-60	25-50	25-35	5-15
	11-14	Very cobbly clay loam	GC	A-2, A-6, A-7	0	30-50	45-65	40-60	20-55	20-40	35-45	15-20
	14-43	Very cobbly clay, very gravelly clay	GC	A-2, A-7	0	10-55	40-75	30-70	30-60	25-50	50-65	25-40
	43-60	Extremely gravelly clay	GC	A-2	0	0-10	15-30	15-30	10-30	10-25	50-65	25-40
179: Redfish-----	0-7	Loam	CL-ML	A-4	0	0-5	100	90-100	85-95	60-75	20-25	5-10
	7-13	Very gravelly loam	GC-GM	A-2	0	0-10	40-50	35-45	30-40	20-35	20-25	5-10
	13-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand	GP	A-1	0	5-30	20-30	10-20	5-10	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
179: Fezip-----	0-6	Fine sandy loam	ML, SM	A-4	0	0	100	95-100	70-85	40-55	20-25	NP-5
	6-16	Loamy sand	SM	A-2	0	0-5	100	95-100	75-90	20-35	0-20	NP
	16-26	Fine sandy loam, gravelly sandy loam, loamy fine sand	SM	A-2	0	0-5	75-100	60-100	55-80	20-35	20-25	NP-5
	26-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand	GP	A-1	0-15	5-30	20-30	10-20	5-10	0-5	0-14	NP
Lilylake-----	0-12	Muck	PT	A-8	0	0	0	0	0	0	0	NP
	12-15	Sand, coarse sand, gravelly coarse sand	SP, SP-SM	A-1	0	0-5	85-100	70-100	35-50	0-10	0-14	NP
	15-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GP	A-1	0-5	5-80	20-30	10-20	5-10	0-5	0-14	NP
180: Resoot-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	3-10	Very gravelly loam, very gravelly clay loam	GC	A-2	0	0-15	30-50	25-45	20-40	20-35	30-35	10-15
	10-60	Very gravelly clay loam, very gravelly clay, extremely gravelly clay	GC	A-2	0	0-25	30-55	25-50	20-40	20-35	35-50	15-25

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
180: Friedman-----	0-3	Gravelly loam	GC-GM, SC, SC-SM, GC	A-4, A-6	0	0-5	65-80	60-75	40-60	35-50	25-35	5-15
	3-10	Gravelly loam, very gravelly loam	GC	A-2, A-6	0-5	0-15	30-65	25-60	20-55	20-50	30-35	10-15
	10-16	Very gravelly clay loam	GC	A-2	0-5	0-20	30-55	25-50	20-40	20-35	45-65	20-35
	16-30	Extremely gravelly clay, very gravelly clay	GC	A-2	0-10	10-25	20-50	15-45	10-40	10-35	50-65	25-35
	30-60	Very stony clay	GC, CH	A-7	10-40	30-55	55-75	50-70	40-70	40-65	50-65	25-35
181: Resoot-----	0-3	Gravelly loam	SC-SM, GC-GM	A-4	0	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	3-12	Very gravelly loam, very gravelly clay loam	GC	A-2	0	0-15	30-50	25-45	20-40	20-35	30-35	10-15
	12-60	Very gravelly clay loam, very gravelly clay, extremely gravelly clay	GC	A-2	0	0-25	30-55	25-50	20-40	20-35	35-50	15-25
Friedman-----	0-2	Gravelly loam	GC-GM, SC, SC-SM, GC	A-4, A-6	0	0-5	65-80	60-75	40-60	35-50	25-35	5-15
	2-18	Gravelly loam, very gravelly loam	GC	A-2, A-6	0-5	0-15	30-65	25-60	20-55	20-50	30-35	10-15
	18-37	Very gravelly clay loam	GC	A-2	0-5	0-20	30-55	25-50	20-40	20-35	45-65	20-35
	37-60	Extremely gravelly clay, very gravelly clay	GC	A-2	0-10	10-25	20-50	15-45	10-40	10-35	50-65	25-35

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
182: Ringle-----	0-4	Gravelly loam	GC-GM, SC-SM	A-4	0	0-10	55-80	50-75	45-65	35-50	20-30	5-10
	4-9	Very gravelly loam, gravelly loam	SC-SM, GC-GM	A-2, A-4	0	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	9-16	Very gravelly sandy loam	GM	A-1, A-2	0	0-10	30-55	25-50	20-45	10-30	15-20	NP-5
	16-60	Extremely gravelly loamy sand	GP-GM	A-1	0	0-10	15-30	15-25	10-20	5-10	0-14	NP
183: Rock outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
Rubble land----	---	---	---	---	---	---	---	---	---	---	---	---
184: Sanfelipe-----	0-8	Gravelly loam	GC-GM, GM, SC-SM, SM	A-4	0	0-10	55-80	50-75	45-65	35-50	20-30	NP-10
	8-38	Very gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GM, SC-SM, SM, GC-GM	A-1, A-2, A-4	0	0-30	25-70	20-65	15-55	10-40	20-30	NP-10
	38-60	Extremely gravelly loamy coarse sand, extremely gravelly sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0	0-25	15-50	10-45	5-35	0-30	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
184: Sanfelipe, moist	0-9	Gravelly loam	GC-GM, GM, SM, SC-SM	A-4	0	0-10	55-80	50-75	45-65	35-50	20-30	NP-10
	9-30	Very gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GM, SC-SM, SM, GC-GM	A-1, A-2, A-4	0	0-30	25-70	20-65	15-55	10-40	20-30	NP-10
	30-60	Extremely gravelly loamy coarse sand, extremely gravelly sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0	0-25	15-50	10-45	5-35	0-30	0-14	NP
185: Shenon-----	0-4	Loam	CL	A-6	0	0	90-100	85-100	60-90	50-80	25-35	10-15
	4-14	Clay loam, gravelly clay loam, loam	GC, CL	A-6	0	0-10	60-95	55-90	45-75	40-70	35-40	15-20
	14-24	Gravelly clay loam, clay loam	CL	A-7	0	0-20	70-95	65-90	55-85	40-75	40-45	15-25
	24-60	Gravelly loam, loam, cobbly loam	CL-ML, GC-GM	A-2, A-4	0	0-20	60-90	55-85	35-65	30-60	25-30	5-10
186: Shenon-----	0-4	Loam	CL	A-6	0	0	90-100	85-100	60-90	50-80	25-35	10-15
	4-14	Clay loam, gravelly clay loam, loam	CL, GC	A-6	0	0-10	60-95	55-90	45-75	40-70	35-40	15-20
	14-24	Gravelly clay loam, clay loam	CL	A-7	0	0-20	70-95	65-90	55-85	40-75	40-45	15-25
	24-60	Gravelly loam, loam, cobbly loam	CL-ML, GC-GM	A-2, A-4	0	0-20	60-90	55-85	35-65	30-60	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
187: Shenon-----	0-4	Loam	CL	A-6	0	0	90-100	85-100	60-90	50-80	25-35	10-15
	4-14	Clay loam, gravelly clay loam, loam	CL, GC	A-6	0	0-10	60-95	55-90	45-75	40-70	35-40	15-20
	14-24	Gravelly clay loam, clay loam	CL	A-7	0	0-20	70-95	65-90	55-85	40-75	40-45	15-25
	24-60	Gravelly loam, loam, cobbly loam	CL-ML, GC-GM	A-2, A-4	0	0-20	60-90	55-85	35-65	30-60	25-30	5-10
Perreau-----	0-5	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	5-18	Gravelly loam, gravelly clay loam, gravelly silty clay loam	GC, CL	A-2, A-6	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	18-21	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	21-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10
188: Shenon-----	0-4	Loam	CL	A-6	0	0	90-100	85-100	60-90	50-80	25-35	10-15
	4-14	Clay loam, gravelly clay loam, loam	CL, GC	A-6	0	0-10	60-95	55-90	45-75	40-70	35-40	15-20
	14-24	Gravelly clay loam, clay loam	CL	A-7	0	0-20	70-95	65-90	55-85	40-75	40-45	15-25
	24-60	Gravelly loam, loam, cobbly loam	CL-ML, GC-GM	A-2, A-4	0	0-20	60-90	55-85	35-65	30-60	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
188: Perreau-----	0-5	Loam	CL-ML	A-4	0	0-10	80-100	75-95	55-85	50-80	20-25	5-10
	5-18	Gravelly loam, gravelly clay loam, gravelly silty clay loam	CL, GC	A-6, A-2	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	18-21	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	21-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10
189: Simeroi-----	0-3	Gravelly loam	GC, GC-GM	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	20-35	5-15
	3-16	Very gravelly loam, extremely gravelly loam	GC-GM, GC	A-2	0	0-10	20-55	15-50	10-45	10-35	20-35	5-15
	16-54	Very gravelly sandy loam, extremely gravelly coarse sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-2, A-1	0	0-20	15-55	15-40	5-35	5-30	15-20	NP-5
	54-60	Very gravelly loamy coarse sand, extremely gravelly coarse sand	GP, GP-GM	A-1	0	0-30	10-40	10-35	0-20	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
190: Simeroi-----	0-3	Gravelly loam	GC, GC-GM	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	20-35	5-15
	3-8	Very gravelly loam, extremely gravelly loam	GC, GC-GM	A-2	0	0-10	20-55	15-50	10-45	10-35	20-35	5-15
	8-48	Very gravelly sandy loam, extremely gravelly coarse sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	0-20	15-55	15-40	5-35	5-30	15-20	NP-5
	48-60	Very gravelly loamy coarse sand, extremely gravelly coarse sand	GP-GM, GP	A-1	0	0-30	10-40	10-35	0-20	0-10	0-14	NP
191: Simeroi, cold---	0-2	Gravelly loam	GC, GC-GM	A-6, A-4	0	0-10	55-75	50-75	40-65	35-50	20-35	5-15
	2-22	Very gravelly loam, extremely gravelly loam	GC, GC-GM	A-2	0	0-10	20-55	15-50	10-45	10-35	20-35	5-15
	22-36	Very gravelly sandy loam, extremely gravelly coarse sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	0-20	15-55	15-40	5-35	5-30	15-20	NP-5
	36-60	Very gravelly loamy coarse sand, extremely gravelly coarse sand	GP, GP-GM	A-1	0	0-30	10-40	10-35	0-20	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
191: Simeroi-----	0-11	Gravelly loam	GC-GM, GC	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	20-35	5-15
	11-60	Very gravelly sandy loam, extremely gravelly coarse sandy loam, extremely gravelly sandy loam	GP-GM, GM	A-1, A-2	0	0-20	15-55	15-40	5-35	5-30	15-20	NP-5
192: Simeroi-----	0-9	Gravelly loam	GC, GC-GM	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	20-35	5-15
	9-23	Very gravelly loam, extremely gravelly loam	GC, GC-GM	A-2	0	0-10	20-55	15-50	10-45	10-35	20-35	5-15
	23-60	Very gravelly sandy loam, extremely gravelly coarse sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	0-20	15-55	15-40	5-35	5-30	15-20	NP-5
Paint-----	0-8	Gravelly loam	GC-GM, SC-SM	A-2, A-4	0	0-10	60-85	55-80	40-60	30-50	20-30	5-10
	8-14	Very cobbly loam, very gravelly loam	GC-GM	A-2, A-4	0	5-30	45-70	40-65	35-60	25-50	20-30	5-10
	14-24	Cemented			---	---	---	---	---	---	---	---
	24-60	Extremely gravelly loamy coarse sand, extremely gravelly sand, very gravelly sandy loam	GP, GP-GM	A-1	0	0-20	10-45	5-40	0-30	0-25	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
192: Sanfelipe-----	0-8	Gravelly loam	GM, GC-GM, SC-SM, SM	A-4	0	0-10	55-80	50-75	45-65	35-50	20-30	NP-10
	8-38	Very gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GC-GM, GM, SC-SM, SM	A-2, A-1, A-4	0	0-30	25-70	20-65	15-55	10-40	20-30	NP-10
	38-60	Extremely gravelly loamy coarse sand, extremely gravelly sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0	0-25	15-50	10-45	5-35	0-30	0-14	NP
193: Simeroi-----	0-9	Gravelly loam	GC-GM, GC	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	20-35	5-15
	9-23	Very gravelly loam, extremely gravelly loam	GC-GM, GC	A-2	0	0-10	20-55	15-50	10-45	10-35	20-35	5-15
	23-60	Very gravelly sandy loam, extremely gravelly coarse sandy loam, extremely gravelly sandy loam	GP-GM, GM	A-1, A-2	0	0-20	15-55	15-40	5-35	5-30	15-20	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
193: Whitecloud-----	0-3	Very gravelly loam	GC-GM	A-4, A-2	0	0	30-55	25-50	20-50	15-40	20-25	5-10
	3-17	Gravelly loam, very gravelly loam, very cobbly loam	GC-GM, SC-SM	A-4, A-2	0	5-40	40-75	35-70	30-65	25-50	20-25	5-10
	17-60	Very gravelly sand, extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	5-20	10-40	10-35	0-25	0-10	0-14	NP
194: Skibo-----	0-5	Stony loam	CL-ML, GC-GM, SC-SM	A-2, A-4	1-5	5-20	60-90	55-85	30-75	20-55	25-30	5-10
	5-23	Extremely cobbly loam, very gravelly loam	GC-GM, GM	A-2	10-25	20-65	25-55	20-50	15-45	15-35	25-35	5-10
	23-60	Extremely gravelly loam, extremely cobbly sandy loam, extremely gravelly fine sandy loam	GP-GC, GC-GM	A-2	10-15	10-40	15-45	10-40	5-35	5-30	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
195: Smout-----	0-7	Gravelly loam	SC-SM	A-2, A-4	0	0	70-85	60-75	30-55	20-50	20-25	5-10
	7-12	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly fine sandy loam	GC-GM, GM	A-2, A-1	0	5-10	40-50	20-40	15-30	10-25	15-25	NP-10
	12-60	Extremely gravelly sand, extremely gravelly loamy coarse sand, extremely gravelly coarse sand	GP, GP-GM	A-1	0	5-40	15-20	10-15	5-15	0-5	0-14	NP
Cowbone-----	0-16	Silt loam	ML	A-4	0	0	95-100	95-100	90-100	90-100	25-30	NP-5
	16-24	Silt loam	CL-ML	A-4	0	0	90-100	85-100	75-100	65-100	25-30	5-10
	24-54	Very fine sandy loam, fine sandy loam	ML, SM	A-4	0	0	90-100	85-100	70-85	35-60	15-25	NP-5
	54-60	Very cobbly loamy very fine sand	GM, GP-GM	A-1, A-2	0-5	35-85	25-45	20-40	10-40	5-30	15-25	NP-5
196: Smout-----	0-6	Loam	CL	A-6	0	0	95-100	95-100	90-100	60-80	25-35	10-15
	6-11	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly fine sandy loam	GM, GC-GM	A-1, A-2	0	5-10	40-50	20-40	15-30	10-25	15-25	NP-10
	11-60	Extremely gravelly sand, extremely gravelly loamy coarse sand, extremely gravelly coarse sand	GP, GP-GM	A-1	0	5-40	15-20	10-15	5-15	0-5	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
196: Yearian-----	0-15	Gravelly loam	CL	A-6	0	0-5	70-85	60-75	60-75	50-60	30-35	10-15
	15-60	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GC-GM	A-2	0-10	0-25	20-55	15-50	5-40	0-35	20-30	5-10
197: Snowslide-----	0-7	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4, A-2	0-3	0-5	55-75	50-75	30-60	30-55	20-30	NP-10
	7-45	Extremely cobble loam, very gravelly loam	GM	A-1, A-2	0-3	10-55	30-45	30-40	25-40	20-35	20-25	NP-5
	45-60	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GP-GM, GM	A-1	0-3	0-20	15-40	15-35	10-30	5-15	0-14	NP
198: Snowslide-----	0-9	Very gravelly loam	GC-GM, GM	A-1, A-2	0-3	0-25	30-60	30-50	25-40	20-35	20-30	NP-10
	9-21	Extremely cobble loam, very gravelly loam	GM	A-2, A-1	0-3	10-55	30-45	30-40	25-40	20-35	20-25	NP-5
	21-55	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0-3	0-20	15-40	15-35	10-30	5-15	0-14	NP
	55-60	Gravelly loam	GM	A-4	0-3	0-10	50-70	50-70	35-60	35-50	20-25	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
199: Snowslide-----	0-9	Very gravelly loam	GC-GM, GM	A-1, A-2	0-3	0-25	30-60	30-50	25-40	20-35	20-30	NP-10
	9-21	Extremely cobbly loam, very gravelly loam	GM	A-1, A-2	0-3	10-55	30-45	30-40	25-40	20-35	20-25	NP-5
	21-55	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GP-GM, GM	A-1	0-3	0-20	15-40	15-35	10-30	5-15	0-14	NP
	55-60	Gravelly loam	GM	A-4	0-3	0-10	50-70	50-70	35-60	35-50	20-25	NP-5
200: Snowslide-----	0-3	Silt loam	CL-ML	A-4	0	0	100	100	85-100	80-95	20-25	5-10
	3-12	Gravelly silt loam	GC-GM, CL-ML	A-4	0	0-5	55-80	50-75	45-70	40-60	20-30	5-10
	12-39	Very gravelly sandy loam, extremely gravelly sandy loam	GP-GM, GM	A-1	0	0-25	20-50	15-45	10-35	5-20	15-25	NP-5
	39-44	Very gravelly silt loam	GC-GM	A-2	0	0-5	45-60	40-55	35-50	25-35	20-30	5-10
	44-60	Extremely gravelly sand, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	10-20	20-30	15-25	5-15	0-10	0-14	NP
Badland-----	---	---	---	---	---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
200: Perreau-----	0-5	Silt loam	CL-ML	A-4	0	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	5-18	Gravelly loam, gravelly clay loam, gravelly silty clay loam	CL, GC	A-2, A-6	0-5	0-5	60-80	55-75	40-65	30-60	25-35	10-15
	18-21	Very gravelly loam, gravelly silt loam, gravelly loam	CL-ML	A-4	0-5	0-5	75-100	75-100	55-85	50-80	20-25	5-10
	21-60	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GC-GM	A-2	0-5	0-10	25-45	20-45	15-40	10-35	20-25	5-10
201: Snowslide-----	0-9	Very gravelly loam	GM, GC-GM	A-2, A-1	0-3	0-25	30-60	30-50	25-40	20-35	20-30	NP-10
	9-21	Extremely cobble loam, very gravelly loam	GM	A-1, A-2	0-3	10-55	30-45	30-40	25-40	20-35	20-25	NP-5
	21-55	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GP-GM, GM	A-1	0-3	0-20	15-40	15-35	10-30	5-15	0-14	NP
	55-60	Gravelly loam	GM	A-4	0-3	0-10	50-70	50-70	35-60	35-50	20-25	NP-5
Farvant-----	0-2	Gravelly sandy loam	GC-GM, SC-SM	A-2, A-4	0-2	0-10	55-80	50-75	45-60	20-40	25-30	5-10
	2-6	Gravelly sandy loam, very gravelly sandy loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-80	35-75	25-60	15-40	25-30	5-10
	6-12	Extremely flaggy sandy loam	GP-GC, GC-GM	A-2	5-25	40-65	35-55	25-45	10-25	5-20	25-30	5-10
	12-16	Weathered bedrock			---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
202: Snowslide, south	0-7	Gravelly loam	ML, CL-ML, GC-GM, GM	A-4, A-2	0-3	0-5	55-75	50-75	30-60	30-55	20-30	NP-10
	7-45	Extremely cobble loam, very gravelly loam	GM	A-2, A-1	0-3	10-55	30-45	30-40	25-40	20-35	20-25	NP-5
	45-60	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0-3	0-20	15-40	15-35	10-30	5-15	0-14	NP
Zer-----	0-5	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	5-14	Gravelly loam, gravelly silt loam, very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	14-26	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
	26-60	Very gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GM, GP-GM	A-1	0-30	5-45	20-45	15-40	10-30	5-15	0-14	NP
Snowslide, north	0-9	Gravelly loam	CL-ML, GC-GM, GM, ML	A-2, A-4	0-3	0-5	55-75	50-75	30-60	30-55	20-30	NP-10
	9-60	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0-3	0-20	15-40	15-35	10-30	5-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
203: Soen-----	0-7	Gravelly loam	GC, SC	A-2, A-6	0	0-10	55-80	50-75	40-60	30-50	25-35	10-15
	7-20	Silty clay loam, clay, clay loam	CL, CH	A-7	0	0-15	75-100	75-100	60-85	50-75	45-70	20-40
	20-60	Cobbly clay loam, gravelly clay loam	GC, CL	A-7	0	0-20	55-80	50-75	40-60	35-55	40-45	15-20
204: Soen-----	0-5	Loam	CL	A-6	0	0-5	80-100	75-100	60-80	50-65	25-35	10-15
	5-14	Silty clay loam, clay, clay loam	CH, CL	A-7	0	0-15	75-100	75-100	60-85	50-75	45-70	20-40
	14-60	Cobbly clay loam, gravelly clay loam	CL, GC	A-7	0	0-20	55-80	50-75	40-60	35-55	40-45	15-20
Justesen-----	0-4	Loam	ML	A-4	0	0	100	100	85-95	60-75	25-35	NP-10
	4-40	Silty clay loam, clay loam	CL, CL-ML	A-6, A-4	0	0	100	85-100	80-95	65-90	25-35	5-15
	40-60	Loam, stony loam, silty clay loam	CL, CL-ML	A-4, A-6	0-10	0-15	95-100	85-100	75-95	55-90	25-35	5-15
Howcan-----	0-4	Gravelly loam	GC-GM, SC-SM	A-4	0	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	4-10	Gravelly loam	SC, GC	A-6	0	0-15	55-80	50-75	45-65	35-50	30-40	10-15
	10-48	Very cobbly loam, very gravelly loam, very gravelly sandy clay loam	GC	A-2	0	5-45	30-60	25-55	15-45	15-35	30-40	10-15
	48-64	Very gravelly loam, extremely gravelly sandy loam, very cobbly sandy loam	GC-GM, SC-SM	A-2	0	5-45	30-70	25-60	10-45	10-35	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
205: Sparmo-----	0-5	Silt loam	CL-ML, ML	A-4	0	0	90-100	90-100	75-85	55-80	20-30	NP-10
	5-37	Loam, gravelly loam, silt loam	CL-ML, ML	A-4	0	0-5	70-100	65-100	60-90	50-80	20-30	NP-10
	37-60	Very gravelly sandy loam, very gravelly loam	GM	A-2	0	0-10	30-55	25-50	15-40	10-35	15-20	NP-5
206: Sparmo-----	0-3	Loam	ML, CL-ML	A-4	0	0	90-100	90-100	75-85	55-80	20-30	NP-10
	3-38	Loam, gravelly loam, silt loam	ML, CL-ML	A-4	0	0-5	70-100	65-100	60-90	50-80	20-30	NP-10
	38-60	Very gravelly sandy loam, very gravelly loam	GM	A-2	0	0-10	30-55	25-50	15-40	10-35	15-20	NP-5
Zer-----	0-3	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	3-10	Gravelly loam, gravelly silt loam, very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	10-23	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
	23-60	Very gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GM, GP-GM	A-1	0-30	5-45	20-45	15-40	10-30	5-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
207: Sparmo-----	0-3	Loam	ML, CL-ML	A-4	0	0	90-100	90-100	75-85	55-80	20-30	NP-10
	3-38	Loam, gravelly loam, silt loam	CL-ML, ML	A-4	0	0-5	70-100	65-100	60-90	50-80	20-30	NP-10
	38-60	Very gravelly sandy loam, very gravelly loam	GM	A-2	0	0-10	30-55	25-50	15-40	10-35	15-20	NP-5
Zer-----	0-3	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	3-10	Gravelly loam, gravelly silt loam, very gravelly loam	GM, GC-GM	A-1, A-2, A-4	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	10-23	Very gravelly sandy loam, extremely gravelly sandy loam	GP-GM, GM	A-1, A-2	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
	23-60	Very gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GP-GM, GM	A-1	0-30	5-45	20-45	15-40	10-30	5-15	0-14	NP
208: Sprabat-----	0-5	Gravelly sandy loam	SM	A-2, A-4	0	0	80-95	55-75	40-60	30-50	25-30	NP-5
	5-7	Sandy loam	SM, ML	A-4	0	0	90-100	85-100	60-90	35-55	25-30	NP-5
	7-41	Gravelly sandy loam	SM	A-2, A-4	0	0	80-95	55-75	40-60	30-50	25-30	NP-5
	41-53	Gravelly loamy coarse sand	SP-SM, SM	A-1	0	0	80-95	55-75	20-45	5-25	20-25	NP-5
	53-60	Gravelly sandy loam	SM	A-2, A-4	0	0	80-95	55-75	40-60	30-50	25-30	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
209: Sprabat-----	0-5	Gravelly sandy loam	SM	A-2, A-4	0	0	80-95	55-75	40-60	30-50	25-30	NP-5
	5-7	Sandy loam	ML, SM	A-4	0	0	90-100	85-100	60-90	35-55	25-30	NP-5
	7-41	Gravelly sandy loam	SM	A-4, A-2	0	0	80-95	55-75	40-60	30-50	25-30	NP-5
	41-53	Gravelly loamy coarse sand	SM, SP-SM	A-1	0	0	80-95	55-75	20-45	5-25	20-25	NP-5
	53-60	Gravelly sandy loam	SM	A-2, A-4	0	0	80-95	55-75	40-60	30-50	25-30	NP-5
Snowslide-----	0-7	Gravelly loam	ML, CL-ML, GC-GM, GM	A-2, A-4	0-3	0-5	55-75	50-75	30-60	30-55	20-30	NP-10
	7-45	Extremely cobbly loam, very gravelly loam	GM	A-1, A-2	0-3	10-55	30-45	30-40	25-40	20-35	20-25	NP-5
	45-60	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0-3	0-20	15-40	15-35	10-30	5-15	0-14	NP
210: Struggle-----	0-2	Gravelly coarse sandy loam	SM	A-2, A-1	0	0	70-90	55-75	25-50	10-25	25-30	NP-5
	2-18	Gravelly coarse sandy loam, very gravelly coarse sandy loam	SM	A-1, A-2	0-5	0-15	70-90	40-75	40-50	10-25	20-25	NP-5
	18-38	Extremely gravelly loamy coarse sand	SP, SP-SM	A-1	0-10	10-40	65-85	15-40	5-25	0-15	0-14	NP
	38-60	Extremely gravelly coarse sand, extremely cobbly coarse sand, extremely stony coarse sand	SP, SP-SM	A-1	0-30	15-40	65-85	10-30	0-15	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
210: Struggle, very stony-----	0-2	Very stony coarse sandy loam	SM	A-1, A-2	25-35	10-15	75-100	70-95	35-60	10-25	25-30	NP-5
	2-13	Gravelly coarse sandy loam, very gravelly coarse sandy loam	SM	A-1, A-2	0-5	0-15	70-90	40-75	40-50	10-25	20-25	NP-5
	13-25	Extremely gravelly loamy coarse sand	SP-SM, SP	A-1	0-10	10-40	65-85	15-40	5-25	0-15	0-14	NP
	25-60	Extremely gravelly coarse sand, extremely cobble coarse sand, extremely stony coarse sand	SP-SM, SP	A-1	0-30	15-40	65-85	10-30	0-15	0-10	0-14	NP
211: Surrett-----	0-8	Gravelly loam	GC-GM, SC-SM	A-4	0	0-5	55-80	50-75	45-65	35-50	20-30	5-10
	8-27	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2	0	0-10	40-55	35-50	25-45	15-30	20-30	5-10
	27-36	Cemented			---	---	---	---	---	---	---	---
	36-60	Extremely gravelly sandy loam, extremely gravelly loamy sand	GM, GP-GM	A-1	0	5-25	15-35	10-25	5-20	5-15	20-25	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
212: Surrett-----	0-10	Gravelly loam	GC-GM, SC-SM	A-4	0	0-5	55-80	50-75	45-65	35-50	20-30	5-10
	10-30	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2	0	0-10	40-55	35-50	25-45	15-30	20-30	5-10
	30-40	Cemented			---	---	---	---	---	---	---	---
	40-60	Extremely gravelly sandy loam, extremely gravelly loamy sand	GP-GM, GM	A-1	0	5-25	15-35	10-25	5-20	5-15	20-25	NP-5
Nurkey-----	0-4	Gravelly loam	SC, SC-SM	A-4, A-6	0-5	0-10	75-85	60-75	50-60	40-45	25-35	5-15
	4-10	Gravelly loam, very gravelly loam, gravelly clay loam	SC	A-6	0-10	5-10	70-75	55-60	50-55	35-40	30-40	10-15
	10-20	Very gravelly clay loam, very gravelly loam	SC	A-6, A-2, A-7	0-10	10-25	75-85	50-65	40-60	30-48	35-45	15-25
	20-60	Very gravelly sandy loam, extremely gravelly sandy loam	SC, SC-SM	A-2	0-10	10-25	55-70	50-55	35-45	20-30	15-30	NP-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
213: Swahlen-----	0-2	Stony loam	GC-GM	A-4	5-15	0	60-75	55-70	45-55	40-50	25-30	5-10
	2-8	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-4	0	0	65-80	50-70	40-50	35-40	25-30	5-10
	8-27	Very gravelly loam, extremely gravelly loam	GC	A-2	0	5-10	40-55	25-55	25-40	15-30	30-35	10-15
	27-60	Extremely gravelly sandy loam, extremely gravelly coarse sandy loam, extremely cobble coarse sandy loam	GP-GM	A-1	0-10	10-50	20-40	15-25	5-15	5-10	15-25	NP-5
Packham-----	0-5	Gravelly loam	SC-SM	A-4, A-2	0	0-5	75-80	50-75	40-65	30-50	25-30	5-10
	5-32	Very gravelly loam, extremely gravelly loam, very gravelly sandy loam	GM	A-1	0	0-25	30-50	15-30	10-30	10-25	20-30	NP-5
	32-60	Very gravelly coarse sand, very gravelly loamy sand	GP, GM, GP-GM	A-1	0	0-25	30-50	25-40	10-25	0-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
214: Swahlen-----	0-2	Stony loam	GC-GM	A-4	5-15	0	60-75	55-70	45-55	40-50	25-30	5-10
	2-8	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-4	0	0	65-80	50-70	40-50	35-40	25-30	5-10
	8-27	Very gravelly loam, extremely gravelly loam	GC	A-2	0	5-10	40-55	25-55	25-40	15-30	30-35	10-15
	27-60	Extremely gravelly sandy loam, extremely gravelly coarse sandy loam, extremely cobble coarse sandy loam	GP-GM	A-1	0-10	10-50	20-40	15-25	5-15	5-10	15-25	NP-5
Yearian-----	0-2	Very stony loam	GC-GM, SC-SM	A-4, A-2	5-10	10-30	50-85	45-80	35-55	25-45	20-30	5-10
	2-12	Very cobbly loam	GC, GC-GM	A-2, A-4	0-5	10-50	50-80	45-75	40-60	30-50	25-35	5-15
	12-60	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GC-GM	A-2	0-10	0-25	20-55	15-50	5-40	0-35	20-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
215: Thosand-----	0-5	Silt loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	75-95	50-90	25-35	5-15
	5-22	Silt loam, loam, fine sandy loam	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	60-95	50-80	25-35	5-15
	22-39	Gravelly silt loam	CL, CL-ML, GC, GC-GM	A-6, A-4	0	0	60-75	55-75	45-75	40-60	25-35	5-15
	39-44	Very gravelly silt loam, gravelly very fine sandy loam, very gravelly sandy loam	GM	A-4, A-1, A-2	0	0	30-65	25-60	20-55	10-45	20-30	NP-5
	44-60	Extremely gravelly loamy sand	GP-GM, GM, GP	A-1	0	0	15-30	10-25	5-20	0-15	0-14	NP
Chillybu-----	0-31	Muck	PT	A-8	0	0	0	0	0	0	0	NP
	31-42	Muck	PT	A-8	0	0	0	0	0	0	0	NP
	42-60	Very gravelly loam, very gravelly sandy loam	GC, GC-GM	A-6, A-2, A-4	0-5	0-10	30-55	25-50	20-45	20-40	25-40	5-15
216: Thosand-----	0-5	Silt loam	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	75-95	50-90	25-35	5-15
	5-22	Silt loam, loam, fine sandy loam	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	60-95	50-80	25-35	5-15
	22-39	Gravelly silt loam	CL, CL-ML, GC, GC-GM	A-4, A-6	0	0	60-75	55-75	45-75	40-60	25-35	5-15
	39-44	Very gravelly silt loam, gravelly very fine sandy loam, very gravelly sandy loam	GM	A-1, A-2, A-4	0	0	30-65	25-60	20-55	10-45	20-30	NP-5
	44-60	Extremely gravelly loamy sand	GM, GP, GP-GM	A-1	0	0	15-30	10-25	5-20	0-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
216: San crane-----	0-2	Silt loam	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	60-95	50-80	25-35	5-15
	2-24	Silt loam	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	55-90	50-80	25-35	5-15
	24-60	Very gravelly loamy sand, extremely gravelly loamy coarse sand	GP-GM, GM, GP	A-1	0	10-30	20-50	15-45	5-30	0-20	0-14	NP
217: Thosand-----	0-5	Silt loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	75-95	50-90	25-35	5-15
	5-22	Silt loam, loam, fine sandy loam	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	60-95	50-80	25-35	5-15
	22-39	Gravelly silt loam	GC-GM, CL, CL-ML, GC	A-4, A-6	0	0	60-75	55-75	45-75	40-60	25-35	5-15
	39-44	Very gravelly silt loam, gravelly very fine sandy loam, very gravelly sandy loam	GM	A-1, A-2, A-4	0	0	30-65	25-60	20-55	10-45	20-30	NP-5
	44-60	Extremely gravelly loamy sand	GM, GP, GP-GM	A-1	0	0	15-30	10-25	5-20	0-15	0-14	NP
Wiskisprings----	0-8	Silt loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-95	45-85	25-35	5-15
	8-49	Silt loam	SC-SM, CL, CL-ML, SC	A-4, A-6	0	0	90-100	85-100	50-100	45-85	25-35	5-15
	49-54	Gravelly loam, gravelly silt loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	65-85	55-80	45-70	40-65	25-35	5-15
	54-60	Extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	0-15	10-30	5-25	5-20	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
218: Threedot-----	0-8	Loam	SC-SM, CL, CL-ML, SC	A-4, A-6	0	0	85-100	85-95	50-80	45-75	25-35	5-15
	8-11	Clay loam	CL	A-6	0	0	85-100	80-95	60-90	50-80	30-40	15-20
	11-19	Gravelly clay loam, very gravelly clay loam	SC, GC	A-2, A-7	0	0	45-75	40-70	35-60	30-50	40-50	20-25
	19-51	Very gravelly clay	GC	A-2, A-7	0	10-30	45-60	35-50	30-45	20-45	50-65	25-35
	51-60	Very gravelly loam	GC, GM	A-2, A-4, A-6	0	10-20	45-60	35-50	25-45	20-45	30-40	5-15
219: Threedot-----	0-10	Gravelly loam	SC-SM, GC, GC-GM, SC	A-4, A-6	0	0-15	50-75	50-75	40-60	35-50	25-35	5-15
	10-29	Gravelly clay loam, very gravelly clay loam	GC, SC	A-2, A-7	0	0	45-75	40-70	35-60	30-50	40-50	20-25
	29-60	Very gravelly clay	GC	A-2, A-7	0	10-30	45-60	35-50	30-45	20-45	50-65	25-35
220: Threedot, dry---	0-6	Gravelly loam	GC, GC-GM, SC, SC-SM	A-4, A-6	0	0-15	50-75	50-75	40-60	35-50	25-35	5-15
	6-28	Gravelly clay loam, very gravelly clay loam	GC, SC	A-2, A-7	0	0	45-75	40-70	35-60	30-50	40-50	20-25
	28-60	Very gravelly clay	GC	A-2, A-7	0	10-30	45-60	35-50	30-45	20-45	50-65	25-35
Threedot-----	0-8	Loam	SC-SM, CL, CL-ML, SC	A-4, A-6	0	0	85-100	85-95	50-80	45-75	25-35	5-15
	8-11	Clay loam	CL	A-6	0	0	85-100	80-95	60-90	50-80	30-40	15-20
	11-19	Gravelly clay loam, very gravelly clay loam	SC, GC	A-2, A-7	0	0	45-75	40-70	35-60	30-50	40-50	20-25
	19-51	Very gravelly clay	GC	A-2, A-7	0	10-30	45-60	35-50	30-45	20-45	50-65	25-35
	51-60	Very gravelly loam	GM, GC	A-2, A-4, A-6	0	10-20	45-60	35-50	25-45	20-45	30-40	5-15

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
221: Typic Cryaquepts	0-7	Silt loam	CL	A-6	0	0	85-100	85-100	60-95	55-90	25-35	10-15
	7-13	Silty clay loam, silt loam	CL	A-6, A-7	0	0	85-100	85-100	65-95	60-90	30-45	10-20
	13-60	Gravelly very fine sandy loam, very fine sandy loam, silt loam, silty clay loam	CL, SC, GC	A-6, A-7, A-2	0	0	60-100	50-100	40-95	30-95	25-45	10-20
222: Ureal-----	0-7	Very cobbly sandy loam	GM, SM	A-1, A-2	0	30-55	55-80	50-70	30-50	15-30	15-25	NP-5
	7-14	Extremely gravelly sandy loam	GP-GM, GM	A-1	0	15-45	20-40	10-30	5-20	5-15	15-25	NP-5
	14-24	Weathered bedrock			---	---	---	---	---	---	---	---
Zeebar-----	0-3	Gravelly loam	GM, ML, SM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	3-13	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	13-19	Very gravelly sandy clay loam, very gravelly clay loam, gravelly clay loam	GC	A-2, A-6, A-7	0-5	10-20	30-55	25-50	20-45	20-40	30-45	10-20
	19-29	Extremely gravelly clay loam, extremely gravelly sandy clay loam	GC, GP-GC	A-2	0-5	10-45	20-35	10-25	5-25	5-20	30-45	10-20
	29-60	Extremely gravelly loam, extremely gravelly sandy loam, extremely gravelly sandy clay loam	GC-GM, GP-GC	A-2	0-5	10-45	20-35	10-25	10-20	5-20	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
222: Dacont-----	0-4	Very cobbly loam	GC-GM	A-2, A-4	0-1	40-50	55-70	50-70	45-60	30-50	25-30	5-10
	4-10	Very gravelly loam, very gravelly clay loam	GC	A-2	0-1	0-15	35-55	30-50	25-40	20-35	30-40	10-15
	10-18	Extremely gravelly loam, very gravelly sandy loam, very gravelly loam	GC-GM	A-2	0-1	10-40	25-50	20-45	15-35	10-30	25-30	5-10
	18-60	Very gravelly sandy loam, extremely cobbly loam	GC-GM, GP-GC	A-2, A-1	0-1	45-60	15-30	10-25	10-25	5-20	25-30	5-10
223: Venum-----	0-2	Very cobbly loam	GC, GC-GM	A-2, A-4, A-6	0	30-45	55-75	50-70	40-65	30-50	25-35	5-15
	2-20	Very gravelly clay loam, very gravelly clay, very cobbly clay	CH, CL, GC	A-2, A-7	0	20-60	45-80	40-80	30-75	30-60	40-60	20-40
	20-42	Very gravelly clay loam, very gravelly clay, very cobbly clay	CH, CL, GC	A-2, A-7	0	20-60	45-80	40-80	30-75	30-60	40-60	20-40
	42-60	Very gravelly clay loam, extremely gravelly clay loam, extremely gravelly loam	GC	A-2	0	15-40	20-45	20-40	15-40	10-35	30-50	10-25

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
223: Cronks-----	0-10	Very cobbly loam	GC-GM	A-2, A-4	0-5	30-50	50-70	50-70	40-60	30-50	25-30	5-10
	10-35	Very cobbly clay, very cobbly clay loam	CH, CL, GC	A-7	0-5	30-50	50-70	50-70	45-70	45-65	45-55	20-30
	35-55	Very cobbly silt loam, very cobbly clay loam	CL, GC	A-6	0-5	30-60	50-70	50-70	45-70	35-60	30-40	10-15
	55-70	Very cobbly silt loam, very cobbly clay loam	CL, GC	A-6	0-5	30-60	50-70	50-70	45-70	35-60	30-40	10-15
224: Venum-----	0-2	Stony loam	GC-GM, CL, CL-ML, GC	A-2, A-4, A-6	1-10	10-30	45-75	40-75	30-70	25-55	25-35	5-15
	2-9	Very gravelly clay loam, very gravelly clay, very cobbly clay	GC, CH, CL	A-2, A-7	0	20-60	45-80	40-80	30-75	30-60	40-60	20-40
	9-26	Very gravelly clay loam, very gravelly clay, very cobbly clay	GC, CH, CL	A-2, A-7	0	20-60	45-80	40-80	30-75	30-60	40-60	20-40
	26-60	Very gravelly clay loam, extremely gravelly clay loam, extremely gravelly loam	GC	A-2	0	15-40	20-45	20-40	15-40	10-35	30-50	10-25
Rock outcrop----	---	---	---	---	---	---	---	---	---	---	---	---

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
225: Venum-----	0-2	Very cobbly loam	GC-GM, GC	A-2, A-4, A-6	0	30-45	55-75	50-70	40-65	30-50	25-35	5-15
	2-20	Very gravelly clay loam, very gravelly clay, very cobbly clay	GC, CH, CL	A-2, A-7	0	20-60	45-80	40-80	30-75	30-60	40-60	20-40
	20-42	Very gravelly clay loam, very gravelly clay, very cobbly clay	GC, CL, CH	A-2, A-7	0	20-60	45-80	40-80	30-75	30-60	40-60	20-40
	42-60	Very gravelly clay loam, extremely gravelly clay loam, extremely gravelly loam	GC	A-2	0	15-40	20-45	20-40	15-40	10-35	30-50	10-25
Custco-----	0-4	Gravelly loam	GC, GC-GM	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	25-35	5-15
	4-17	Very gravelly loam, extremely gravelly loam	GC, GC-GM	A-2, A-4, A-6	0-10	0-10	25-55	20-50	15-45	15-40	25-40	5-15
	17-60	Very gravelly loam, extremely gravelly loamy sand, extremely gravelly sandy loam	GP-GM, GM	A-1	0-10	0-35	20-50	15-45	5-35	5-20	15-25	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
226: Whitecloud-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	3-18	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	5-20	15-55	15-50	10-40	5-30	15-20	NP-5
	18-60	Very gravelly sand, extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	5-20	10-40	10-35	0-25	0-10	0-14	NP
227: Whitecloud-----	0-4	Gravelly loam	GC-GM, SC-SM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	4-14	Gravelly loam, very gravelly loam, very cobble loam	GC-GM, SC-SM	A-2, A-4	0	5-40	40-75	35-70	30-65	25-50	20-25	5-10
	14-60	Very gravelly sand, extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	5-20	10-40	10-35	0-25	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
228: Whitecloud-----	0-5	Gravelly loam	GC-GM, SC-SM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	5-14	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	5-20	15-55	15-50	10-40	5-30	15-20	NP-5
	14-60	Very gravelly sand, extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	5-20	10-40	10-35	0-25	0-10	0-14	NP
Sanfelipe-----	0-8	Gravelly loam	GC-GM, GM, SC-SM, SM	A-4	0	0-10	55-80	50-75	45-65	35-50	20-30	NP-10
	8-38	Very gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GC-GM, GM, SC-SM, SM	A-1, A-2, A-4	0	0-30	25-70	20-65	15-55	10-40	20-30	NP-10
	38-60	Extremely gravelly loamy coarse sand, extremely gravelly sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0	0-25	15-50	10-45	5-35	0-30	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
228: Fandow-----	0-4	Gravelly loam	GC-GM, SC-SM	A-2, A-4	0	0-5	55-80	50-75	45-65	30-50	20-30	5-10
	4-16	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2	0	0-10	40-55	35-50	25-45	15-30	20-30	5-10
	16-25	Cemented			---	---	---	---	---	---	---	---
	25-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand, extremely gravelly loamy sand	GP	A-1	0	5-25	15-30	10-25	5-15	0-5	0-14	NP
229: Whitecloud-----	0-2	Gravelly loam	GC-GM, SC-SM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	2-6	Gravelly loam, very gravelly loam, very cobble loam	GC-GM, SC-SM	A-2, A-4	0	5-40	40-75	35-70	30-65	25-50	20-25	5-10
	6-17	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	5-20	15-55	15-50	10-40	5-30	15-20	NP-5
	17-60	Very gravelly sand, extremely gravelly loamy sand, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	5-20	10-40	10-35	0-25	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
229: Simeroi-----	0-3	Gravelly loam	GC, GC-GM	A-4, A-6	0	0-10	55-75	50-75	40-65	35-50	20-35	5-15
	3-16	Very gravelly loam, extremely gravelly loam	GC, GC-GM	A-2	0	0-10	20-55	15-50	10-45	10-35	20-35	5-15
	16-54	Very gravelly sandy loam, extremely gravelly coarse sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	0-20	15-55	15-40	5-35	5-30	15-20	NP-5
	54-60	Very gravelly loamy coarse sand, extremely gravelly coarse sand	GP, GP-GM	A-1	0	0-30	10-40	10-35	0-20	0-10	0-14	NP
230: Whiteknob-----	0-4	Gravelly loam	GC-GM, SC-SM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	4-7	Loam, gravelly loam	CL-ML, GC-GM	A-4	0	0-10	55-100	50-100	40-75	35-70	20-25	5-10
	7-11	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	0-20	10-60	10-50	10-40	5-30	15-20	NP-5
	11-60	Very gravelly sand, extremely gravelly loamy coarse sand, extremely gravelly sand	GP, GP-GM	A-1	0	0-50	10-40	5-35	0-25	0-10	10-15	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
231: Whiteknob-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	3-9	Loam, gravelly loam	CL-ML, GC-GM	A-4	0	0-10	55-100	50-100	40-75	35-70	20-25	5-10
	9-60	Very gravelly sand, extremely gravelly loamy coarse sand, extremely gravelly sand	GP, GP-GM	A-1	0	0-50	10-40	5-35	0-25	0-10	10-15	NP-5
Leadore-----	0-3	Gravelly loam	CL-ML, GC-GM	A-4	0	0-10	60-75	55-75	40-65	35-60	20-25	5-10
	3-20	Gravelly loam, very gravelly loam, very gravelly sandy loam	GC-GM, SC-SM	A-2, A-4	0	0-15	50-80	45-75	35-60	20-50	25-30	5-10
	20-60	Extremely cobbly loamy sand, extremely cobbly sand, extremely gravelly loamy sand	GM, GP-GM	A-1	0-10	30-65	25-55	20-50	10-40	5-20	0-14	NP
232: Whiteknob-----	0-4	Gravelly loam	GC-GM, SC-SM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	4-7	Loam, gravelly loam	CL-ML, GC-GM	A-4	0	0-10	55-100	50-100	40-75	35-70	20-25	5-10
	7-11	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	0-20	10-60	10-50	10-40	5-30	15-20	NP-5
	11-60	Very gravelly sand, extremely gravelly loamy coarse sand, extremely gravelly sand	GP, GP-GM	A-1	0	0-50	10-40	5-35	0-25	0-10	10-15	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
232: Zer-----	0-3	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	3-9	Gravelly loam, gravelly silt loam, very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	9-21	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
	21-60	Very gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GM, GP-GM	A-1	0-30	5-45	20-45	15-40	10-30	5-15	0-14	NP
233: Wiggleton-----	0-6	Gravelly silt loam	CL-ML, GC-GM	A-4	0	0-5	55-80	50-75	45-70	40-60	20-30	5-10
	6-12	Very gravelly coarse sandy loam	GM	A-1	0	0-10	40-55	35-50	20-30	15-25	15-20	NP-5
	12-60	Extremely gravelly loamy coarse sand, extremely gravelly sand	GP	A-1	0	5-30	20-30	10-20	5-10	0-5	0-14	NP
234: Wiggleton-----	0-5	Very gravelly sandy loam	GC-GM	A-2	0	0-10	30-55	25-50	20-40	10-30	20-30	5-10
	5-11	Extremely gravelly sandy loam	GP-GM, GM	A-1	0	0-10	15-30	10-25	5-20	5-20	15-25	NP-5
	11-60	Extremely gravelly loamy coarse sand	GM, GP-GM	A-1	0	30-65	25-55	20-50	10-40	5-20	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
234: Copperbasin-----	0-10	Gravelly fine sandy loam	SM	A-2, A-4	0	0-10	65-80	60-75	50-70	10-45	25-30	NP-5
	10-27	Extremely gravelly loamy fine sand, extremely gravelly loamy sand, very gravelly sandy loam	GM, GP-GM	A-1	0-20	30-50	20-45	15-40	15-30	5-30	25-30	NP-5
	27-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GM, GP, GP-GM	A-1	0-20	25-65	20-40	15-35	15-25	0-15	0-14	NP
235: Wimpey-----	0-3	Silty clay	CH	A-7	0	0	100	100	95-100	80-90	50-60	25-30
	3-14	Silty clay, silty clay loam	CH, CL	A-7	0	0	100	85-100	85-100	75-95	45-65	20-35
	14-27	Silty clay, silty clay loam	CH, CL	A-7	0	0	80-100	75-100	70-100	65-95	45-65	20-35
	27-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble loamy coarse sand	GC-GM, GM, GP-GM	A-2	0-15	15-45	20-35	15-30	5-25	5-15	15-25	NP-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
235: Zeph-----	0-5	Silty clay	CH	A-7	0	0	100	95-100	90-100	90-100	50-70	25-40
	5-23	Very gravelly coarse sand, extremely gravelly coarse sand, extremely gravelly loamy coarse sand	GM, GP-GM	A-1	0	0	25-45	20-40	5-25	5-15	10-15	NP-5
	23-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand	GP-GM	A-1	0-10	20-30	20-35	15-30	5-15	5-10	10-15	NP-5
Ajax-----	0-11	Silty clay	CH	A-7	0	0	100	100	90-100	90-100	50-75	30-45
	11-32	Silty clay loam, silty clay, clay	CH, CL	A-7	0	0	100	100	90-100	90-100	45-75	25-40
	32-60	Silt loam, silty clay loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	100	100	60-90	25-85	20-40	NP-20
236: Windcoat-----	0-3	Gravelly silt loam	CL-ML, GC-GM, GM, ML	A-4	0	0-5	55-80	50-75	45-70	40-60	20-30	NP-10
	3-14	Gravelly silt loam, gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0	0-5	55-80	50-75	45-70	35-60	20-30	NP-10
	14-18	Indurated			---	---	---	---	---	---	---	---
	18-60	Extremely gravelly coarse sandy loam, extremely gravelly loamy coarse sand	GM, GP-GM	A-1	0	0-30	15-40	15-35	5-25	5-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
237: Windcoat-----	0-5	Gravelly silt loam	CL-ML, GC-GM, GM, ML	A-4	0	0-5	55-80	50-75	45-70	40-60	20-30	NP-10
	5-15	Gravelly silt loam, gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0	0-5	55-80	50-75	45-70	35-60	20-30	NP-10
	15-18	Indurated			---	---	---	---	---	---	---	---
	18-60	Extremely gravelly coarse sandy loam, extremely gravelly loamy coarse sand	GM, GP-GM	A-1	0	0-30	15-40	15-35	5-25	5-15	0-14	NP
Fandow-----	0-7	Gravelly loam	GC-GM, SC-SM	A-2, A-4	0	0-5	55-80	50-75	45-65	30-50	20-30	5-10
	7-15	Very gravelly loam, very gravelly sandy loam	GC-GM	A-2	0	0-10	40-55	35-50	25-45	15-30	20-30	5-10
	15-17	Cemented			---	---	---	---	---	---	---	---
	17-60	Extremely gravelly loamy coarse sand, extremely gravelly coarse sand, extremely gravelly loamy sand	GP	A-1	0	5-25	15-30	10-25	5-15	0-5	0-14	NP
238: Wiskisprings---	0-8	Silt loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-95	45-85	25-35	5-15
	8-49	Silt loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-100	45-85	25-35	5-15
	49-54	Gravelly loam, gravelly silt loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	65-85	55-80	45-70	40-65	25-35	5-15
	54-60	Extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	0-15	10-30	5-25	5-20	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
238: Biglost-----	0-5	Silt loam	CL-ML	A-4	0	0	90-100	85-100	60-95	50-85	25-30	5-10
	5-26	Silt loam	CL-ML	A-4	0	0	90-100	85-100	60-90	50-80	25-30	5-10
	26-60	Extremely gravelly loamy fine sand, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0-10	0-30	20-30	10-20	5-15	0-10	0-14	NP
239: Wiskisprings----	0-8	Silt loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-95	45-85	25-35	5-15
	8-49	Silt loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	90-100	85-100	50-100	45-85	25-35	5-15
	49-54	Gravelly loam, gravelly silt loam, sandy clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	65-85	55-80	45-70	40-65	25-35	5-15
	54-60	Extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	0-15	10-30	5-25	5-20	0-10	0-14	NP
Biglost-----	0-5	Silt loam	CL-ML	A-4	0	0	90-100	85-100	60-95	50-85	25-30	5-10
	5-26	Silt loam	CL-ML	A-4	0	0	90-100	85-100	60-90	50-80	25-30	5-10
	26-60	Extremely gravelly loamy fine sand, extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0-10	0-30	20-30	10-20	5-15	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
239: Copperbasin-----	0-5	Very gravelly fine sandy loam	GM	A-1, A-2	0	0-20	30-60	25-55	25-50	15-35	25-30	NP-5
	5-25	Extremely gravelly loamy fine sand, extremely gravelly loamy sand, very gravelly sandy loam	GM, GP-GM	A-1	0-20	30-50	20-45	15-40	15-30	5-30	25-30	NP-5
	25-33	Extremely cobble sand, extremely cobble loamy sand, extremely gravelly loamy sand	GM, GP, GP-GM	A-1	0-20	50-70	20-45	15-40	15-30	0-20	0-14	NP
	33-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GM, GP, GP-GM	A-1	0-20	25-65	20-40	15-35	15-25	0-15	0-14	NP
240: Xeric Torrifluvents--	0-3	Loam	ML	A-4	0	0-5	95-100	75-100	65-95	50-75	20-25	NP-5
	3-44	Loam, gravelly loam	GM, ML, SM	A-4	0	0-5	70-95	65-90	55-85	45-70	20-25	NP-5
	44-60	Extremely gravelly coarse sand, extremely gravelly loamy coarse sand, extremely cobble coarse sand	GM, GP, GP-GM	A-1	0-20	25-65	20-40	15-35	15-25	0-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	<i>In</i>				<i>Pct</i>	<i>Pct</i>					<i>Pct</i>	
241: Yearian-----	0-2	Very stony loam	GC-GM, SC-SM	A-2, A-4	5-10	10-30	50-85	45-80	35-55	25-45	20-30	5-10
	2-12	Very cobbly loam	GC, GC-GM	A-2, A-4	0-5	10-50	50-80	45-75	40-60	30-50	25-35	5-15
	12-60	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GC-GM	A-2	0-10	0-25	20-55	15-50	5-40	0-35	20-30	5-10
242: Yearian-----	0-2	Very stony loam	GC-GM, SC-SM	A-2, A-4	5-10	10-30	50-75	45-70	35-55	25-45	20-30	5-10
	2-12	Very cobbly loam	GC, GC-GM	A-2, A-4	0-5	30-50	50-70	45-65	40-60	30-50	25-35	5-15
	12-60	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GC-GM	A-2	0-10	0-15	20-55	15-50	5-40	0-35	20-30	5-10
243: Zeale-----	0-9	Gravelly loam	GM, ML	A-6	0-5	0-5	55-80	50-75	40-70	35-60	35-45	10-15
	9-60	Extremely gravelly sandy loam, very gravelly loam, extremely cobbly loam	GM	A-2	0-5	5-60	25-50	20-50	10-40	10-35	35-40	10-15

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
243: Meegero-----	0-10	Loam	CL-ML	A-4	0	0	75-90	75-90	55-80	50-75	25-30	5-10
	10-19	Gravelly loam, gravelly silt loam	CL-ML, GC-GM, SC-SM	A-2, A-4	0	0-5	55-75	50-70	35-60	30-55	25-35	5-10
	19-29	Very gravelly loam, extremely gravelly loam	GC	A-2, A-6	0	5-40	15-60	15-55	10-50	10-45	30-40	10-15
	29-60	Extremely cobble loam, extremely gravelly loam, extremely cobble sandy loam	GC, GC-GM	A-2	0	45-65	30-60	25-50	20-40	20-35	25-35	5-15
244: Zeale-----	0-9	Gravelly loam	GM, ML	A-6	0-5	0-5	55-80	50-75	40-70	35-60	35-45	10-15
	9-60	Extremely gravelly sandy loam, very gravelly loam, extremely cobble loam	GM	A-2	0-5	5-60	25-50	20-50	10-40	10-35	35-40	10-15
Meegero-----	0-10	Loam	CL-ML	A-4	0	0	75-90	75-90	55-80	50-75	25-30	5-10
	10-19	Gravelly loam, gravelly silt loam	CL-ML, GC-GM, SC-SM	A-4, A-2	0	0-5	55-75	50-70	35-60	30-55	25-35	5-10
	19-29	Very gravelly loam, extremely gravelly loam	GC	A-6, A-2	0	5-40	15-60	15-55	10-50	10-45	30-40	10-15
	29-60	Extremely cobble loam, extremely gravelly loam, extremely cobble sandy loam	GC, GC-GM	A-2	0	45-65	30-60	25-50	20-40	20-35	25-35	5-15

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
245: Zeale-----	0-9	Gravelly loam	GM, ML	A-6	0-5	0-5	55-80	50-75	40-70	35-60	35-45	10-15
	9-60	Extremely gravelly sandy loam, very gravelly loam, extremely cobble loam	GM	A-2	0-5	5-60	25-50	20-50	10-40	10-35	35-40	10-15
Zeelnot-----	0-10	Gravelly loam	CL-ML, GC-GM	A-4, A-2	0	0-5	55-80	50-75	35-60	30-55	25-30	5-10
	10-24	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	35-60	30-50	20-50	15-45	25-30	5-10
	24-32	Extremely gravelly loam	GC	A-2	0	10-30	20-40	15-40	15-35	15-25	30-40	10-20
	32-60	Extremely cobble clay loam, extremely cobble silty clay loam	GC	A-2, A-6, A-7	0	30-80	25-70	25-70	20-60	20-45	35-45	15-20
246: Zeebar-----	0-8	Gravelly loam	GM, ML, SM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	8-22	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-4, A-2	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	22-35	Very gravelly sandy clay loam, very gravelly clay loam, gravelly clay loam	GC	A-6, A-7, A-2	0-5	10-20	30-55	25-50	20-45	20-40	30-45	10-20
	35-49	Extremely gravelly clay loam, extremely sandy gravelly sandy clay loam	GC, GP-GC	A-2	0-5	10-45	20-35	10-25	5-25	5-20	30-45	10-20
	49-60	Extremely gravelly loam, extremely gravelly sandy loam, extremely sandy gravelly sandy clay loam	GC-GM, GP-GC	A-2	0-5	10-45	20-35	10-25	10-20	5-20	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
246: Nielsen-----	0-3	Cobbly loam	CL-ML, GC-GM	A-4	0	25-45	70-95	70-90	45-75	45-70	25-30	5-10
	3-15	Very gravelly clay loam, extremely gravelly clay loam, very gravelly loam	GC	A-2	0	0-30	25-55	20-50	15-40	15-35	30-40	10-20
	15-25	Unweathered bedrock			---	---	---	---	---	---	---	---
Povey-----	0-4	Very gravelly loam	GC-GM, GM	A-2	0	0-10	40-55	35-50	30-45	25-35	20-30	NP-10
	4-16	Very gravelly loam, very gravelly sandy loam, very cobbly loam	GC-GM	A-2	0-5	0-35	35-55	30-50	25-40	20-35	25-30	5-10
	16-60	Very gravelly sandy loam, extremely gravelly sandy loam, extremely gravelly loam	GC-GM, GM	A-1, A-2	0-25	10-45	30-55	25-50	20-40	10-40	20-30	NP-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
247: Zeebar-----	0-2	Gravelly loam	GM, ML, SM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	2-9	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	9-16	Very gravelly sandy clay loam, very gravelly clay loam, gravelly clay loam	GC	A-2, A-6, A-7	0-5	10-20	30-55	25-50	20-45	20-40	30-45	10-20
	16-32	Extremely gravelly clay loam, extremely gravelly sandy clay loam	GC, GP-GC	A-2	0-5	10-45	20-35	10-25	5-25	5-20	30-45	10-20
	32-60	Extremely gravelly loam, extremely gravelly sandy loam, extremely gravelly sandy clay loam	GC-GM, GP-GC	A-2	0-5	10-45	20-35	10-25	10-20	5-20	25-30	5-10
Parkay-----	0-10	Gravelly loam	GC-GM	A-2, A-4	0	0-10	55-75	50-70	30-60	25-50	25-30	5-10
	10-17	Gravelly loam, very cobbly loam, extremely cobbly clay loam, very gravelly loam	CL, CL-ML, GC, GC-GM	A-2, A-4, A-6	0	10-40	60-85	55-80	30-70	30-55	25-35	5-15
	17-26	Very gravelly loam, extremely cobbly loam, extremely cobbly clay loam, very gravelly clay loam	CL, CL-ML, GC, GC-GM	A-4, A-6, A-2	0	10-80	55-85	50-85	30-65	25-60	25-35	5-15
	26-60	Very gravelly clay loam	GC, GC-GM, GP-GC	A-2	0	5-40	25-40	20-35	10-20	5-15	25-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
248: Zeebar-----	0-5	Gravelly loam	GM, ML, SM	A-2, A-4	0-5	0-5	55-80	50-75	40-70	30-55	20-25	NP-5
	5-15	Gravelly loam, very gravelly loam	GC-GM, SC-SM	A-2, A-4	0-5	0-10	40-75	35-70	25-50	25-45	20-30	5-10
	15-60	Extremely gravelly loam, extremely gravelly sandy loam, extremely gravelly sandy clay loam	GC-GM, GP-GC	A-2	0-5	10-45	20-35	10-25	10-20	5-20	25-30	5-10
Resoot-----	0-3	Gravelly loam	GC-GM, SC-SM	A-4	0	0-10	55-80	50-75	45-65	35-50	25-30	5-10
	3-10	Very gravelly loam, very gravelly clay loam	GC	A-2	0	0-15	30-50	25-45	20-40	20-35	30-35	10-15
	10-60	Very gravelly clay loam, very gravelly clay, extremely gravelly clay	GC	A-2	0	0-25	30-55	25-50	20-40	20-35	35-50	15-25
249: Zeegee-----	0-11	Silty clay	CH	A-7	0	0	100	100	90-100	90-100	50-75	25-45
	11-35	Silty clay loam, clay loam, silt loam	CL	A-6	0	0	100	100	80-100	80-100	30-45	10-25
	35-60	Extremely gravelly silt loam, extremely gravelly very fine sandy loam	GC-GM	A-2	0	0-15	20-30	15-25	10-25	5-20	20-30	5-10

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
249: Ajax-----	0-4	Silty clay	CH	A-7	0	0	100	100	90-100	90-100	50-75	30-45
	4-41	Silty clay loam, silty clay, clay	CH, CL	A-7	0	0	100	100	90-100	90-100	45-75	25-40
	41-60	Silt loam, silty clay loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	100	100	60-90	25-85	20-40	NP-20
250: Zeelnot-----	0-10	Gravelly loam	CL-ML, GC-GM	A-2, A-4	0	0-5	55-80	50-75	35-60	30-55	25-30	5-10
	10-24	Very gravelly loam	GC-GM	A-4, A-2	0	0-10	35-60	30-50	20-50	15-45	25-30	5-10
	24-32	Extremely gravelly loam	GC	A-2	0	10-30	20-40	15-40	15-35	15-25	30-40	10-20
	32-60	Extremely cobble clay loam, extremely cobble silty clay loam	GC	A-2, A-6, A-7	0	30-80	25-70	25-70	20-60	20-45	35-45	15-20
251: Zeelnot-----	0-8	Gravelly loam	CL-ML, GC-GM	A-2, A-4	0	0-5	55-80	50-75	35-60	30-55	25-30	5-10
	8-23	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	35-60	30-50	20-50	15-45	25-30	5-10
	23-60	Extremely cobble clay loam, extremely cobble silty clay loam	GC	A-6, A-7, A-2	0	30-80	25-70	25-70	20-60	20-45	35-45	15-20
252: Zeelnot-----	0-10	Gravelly loam	CL-ML, GC-GM	A-2, A-4	0	0-5	55-80	50-75	35-60	30-55	25-30	5-10
	10-24	Very gravelly loam	GC-GM	A-2, A-4	0	0-10	35-60	30-50	20-50	15-45	25-30	5-10
	24-32	Extremely gravelly loam	GC	A-2	0	10-30	20-40	15-40	15-35	15-25	30-40	10-20
	32-60	Extremely cobble clay loam, extremely cobble silty clay loam	GC	A-2, A-6, A-7	0	30-80	25-70	25-70	20-60	20-45	35-45	15-20

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
252: Meegernot-----	0-16	Gravelly loam	CL-ML, GC-GM	A-4	0	0-10	55-75	50-70	35-65	35-55	25-30	5-10
	16-41	Very gravelly loam, extremely gravelly loam	GC	A-2	0	0-15	25-50	20-45	15-40	15-35	30-35	10-15
	41-58	Extremely gravelly clay loam	GC	A-2	0	0-15	15-35	10-30	5-25	5-20	35-50	15-25
	58-66	Extremely gravelly loamy coarse sand	GP, GP-GM	A-1	0	0-15	10-30	5-25	5-20	0-10	20-25	NP-5
Adek-----	0-2	Very gravelly loam	GC-GM	A-2, A-4	0-2	0-10	35-55	30-50	20-45	20-40	20-25	5-10
	2-14	Very gravelly loam	GC-GM	A-2, A-4	0-2	5-30	40-55	35-50	25-45	25-40	20-25	5-10
	14-27	Extremely gravelly loam	GC-GM, GP-GC	A-2	0-2	15-35	20-40	15-35	5-30	5-20	20-25	5-10
	27-60	Very gravelly loam, extremely cobbly loam	GC-GM	A-2	0-2	15-45	35-50	30-45	20-40	20-35	20-25	5-10
253: Zer-----	0-5	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	5-14	Gravelly loam, gravelly silt loam, very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	14-26	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-2, A-1	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
	26-60	Very gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GM, GP-GM	A-1	0-30	5-45	20-45	15-40	10-30	5-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
254: Zer-----	0-7	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	7-14	Gravelly sandy loam, gravelly loam, very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0-30	0-25	35-60	30-60	25-50	20-40	15-25	NP-10
	14-60	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-2, A-1	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
255: Zer-----	0-8	Gravelly loam	GC-GM, SC-SM	A-4	0	0-5	55-75	50-70	35-65	35-50	20-30	5-10
	8-43	Very gravelly sandy loam, very gravelly coarse sandy loam, very gravelly loam	GC-GM, GM	A-1, A-2	0	0-15	40-55	25-50	10-35	10-20	20-30	NP-10
	43-60	Very gravelly loam, extremely gravelly sandy loam, extremely gravelly loamy sand	GC-GM, GM	A-1	0	0	10-40	5-35	5-25	5-20	20-30	NP-10
256: Zer-----	0-6	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	6-26	Gravelly loam, gravelly silt loam, very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	26-60	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
257: Zer-----	0-8	Very gravelly silt loam	GM	A-2	0	0-5	40-60	35-55	30-45	25-35	30-40	5-10
	8-43	Very gravelly sandy loam, very gravelly coarse sandy loam, very gravelly loam	GC-GM, GM	A-1, A-2	0	0-15	40-55	25-50	10-35	10-20	20-30	NP-10
	43-60	Very gravelly loam, extremely gravelly sandy loam, extremely gravelly loamy sand	GC-GM, GM	A-1	0	0	10-40	5-35	5-25	5-20	20-30	NP-10
258: Zer-----	0-3	Very cobbly loam	GC, GC-GM	A-2, A-6	0	30-50	50-70	45-70	35-60	30-50	25-35	5-15
	3-27	Very gravelly loam, extremely gravelly loam, extremely gravelly sandy loam	GC-GM, GM	A-1, A-2	0	5-20	25-50	20-45	15-35	10-30	20-30	NP-10
	27-60	Extremely gravelly sand, extremely gravelly loamy sand	GP, GP-GM	A-1	0	5-30	15-30	10-25	5-20	0-10	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
259: Zer-----	0-5	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	5-14	Gravelly loam, gravelly silt loam, very gravelly loam	GM, GC-GM	A-2, A-4, A-1	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	14-26	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
	26-60	Very gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GM, GP-GM	A-1	0-30	5-45	20-45	15-40	10-30	5-15	0-14	NP
Snowslide-----	0-7	Gravelly loam	CL-ML, GC-GM, GM, ML	A-2, A-4	0-3	0-5	55-75	50-75	30-60	30-55	20-30	NP-10
	7-60	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0-3	0-20	15-40	15-35	10-30	5-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
260: Zer-----	0-5	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	5-14	Gravelly loam, gravelly silt loam, very gravelly loam	GC-GM, GM	A-2, A-4, A-1	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	14-26	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-2, A-1	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
	26-60	Very gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GM, GP-GM	A-1	0-30	5-45	20-45	15-40	10-30	5-15	0-14	NP
Snowslide-----	0-7	Gravelly loam	CL-ML, GC-GM, GM, ML	A-2, A-4	0-3	0-5	55-75	50-75	30-60	30-55	20-30	NP-10
	7-24	Extremely cobble loam, very gravelly loam	GM	A-2, A-1	0-3	10-55	30-45	30-40	25-40	20-35	20-25	NP-5
	24-60	Extremely gravelly loam, extremely gravelly sandy loam, very gravelly sandy loam	GM, GP-GM	A-1	0-3	0-20	15-40	15-35	10-30	5-15	0-14	NP

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
261: Zer-----	0-5	Gravelly loam	CL-ML, GC-GM, GM, ML	A-4	0-5	0-10	55-80	55-75	45-70	35-55	15-25	NP-10
	5-14	Gravelly loam, gravelly silt loam, very gravelly loam	GC-GM, GM	A-1, A-2, A-4	0-30	0-10	35-80	30-75	25-65	20-50	15-25	NP-10
	14-20	Very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0-30	5-35	25-55	20-50	15-45	5-35	15-25	NP-5
	20-60	Very gravelly loamy sand, extremely gravelly sandy loam, extremely gravelly loamy sand	GM, GP-GM	A-1	0-30	5-45	20-45	15-40	10-30	5-15	0-14	NP
Whiteknob-----	0-5	Gravelly loam	GC-GM, SC-SM	A-4	0	0	55-80	50-75	45-65	35-50	20-25	5-10
	5-10	Loam, gravelly loam	CL-ML, GC-GM	A-4	0	0-10	55-100	50-100	40-75	35-70	20-25	5-10
	10-18	Very gravelly loam, very gravelly sandy loam, extremely gravelly sandy loam	GM, GP-GM	A-1, A-2	0	0-20	10-60	10-50	10-40	5-30	15-20	NP-5
	18-60	Very gravelly sand, extremely gravelly loamy coarse sand, extremely gravelly sand	GP, GP-GM	A-1	0	0-50	10-40	5-35	0-25	0-10	10-15	NP-5

Table 12.--Engineering Index Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
262: Simeroi-----	0-3	Very gravelly silt loam	GC, GC-GM	A-1	0	0-10	30-50	25-45	15-35	10-30	20-35	5-15
	3-10	Very gravelly silt loam, extremely gravelly loam	GC, GC-GM	A-1	0	0-10	30-50	25-45	15-35	10-30	20-35	5-15
	10-60	Extremely gravelly sandy loam, extremely gravelly coarse sandy loam	GM, GP-GM	A-1	0	0-20	20-35	15-30	10-25	5-20	15-20	NP-5
263: Water-----	---	---	---	---	---	---	---	---	---	---	---	---

Table 13.--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	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
1: Alpinepeak-----	0-3	8-15	1.25-1.40	2.0-6.0	0.07-0.08	0.0-2.9	2.0-4.0	.10	.28	3	5	56
	3-14	6-15	1.25-1.40	2.0-6.0	0.06-0.08	0.0-2.9	0.5-1.0	.10	.32			
	14-32	6-15	1.25-1.40	2.0-6.0	0.04-0.06	0.0-2.9	0.0-0.5	.05	.32			
	32-60	0-5	1.20-1.35	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
2: Aguents-----	0-2	0-3	1.35-1.55	2.0-6.0	0.04-0.07	0.0-2.9	0.0-1.0	.10	.28	5	8	0
	2-60	2-15	1.40-1.60	6.0-20.0	0.02-0.10	0.0-2.9	0.0-1.0	.17	.43			
Riverwash-----	---	---	---	---	---	---	---	---	---	---	---	---
3: Arbus-----	0-3	12-20	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	2	4L	86
	3-12	12-20	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.15	.37			
	12-60	3-8	1.60-1.65	6.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.15			
4: Arco-----	0-13	20-27	1.20-1.30	0.2-2.0	0.17-0.19	0.0-2.9	2.0-4.0	.32	.32	5	4L	86
	13-54	22-32	1.20-1.50	0.2-0.6	0.17-0.19	3.0-5.9	0.0-1.0	.43	.43			
	54-60	18-34	1.20-1.50	0.2-2.0	0.12-0.21	3.0-5.9	0.0-0.5	.43	.43			
5: Badland-----	---	---	---	---	---	---	---	---	---	---	---	---
Millhi-----	0-1	40-60	1.20-1.35	0.00-0.06	0.11-0.17	6.0-8.9	1.0-2.0	.37	.43	1	5	56
	1-60	35-60	1.20-1.35	0.00-0.06	0.10-0.20	6.0-8.9	0.5-1.0	.37	.43			
6: Bartonflat-----	0-7	10-20	1.45-1.60	0.6-2.0	0.12-0.16	0.0-2.9	1.0-2.0	.24	.37	5	6	48
	7-11	5-12	1.45-1.60	6.0-20.0	0.02-0.05	0.0-2.9	0.5-2.0	.05	.20			
	11-60	1-5	1.45-1.60	20.0-20.0	0.02-0.05	0.0-2.9	0.0-0.5	.05	.15			
7: Bartonflat-----	0-5	4-12	1.45-1.60	2.0-6.0	0.05-0.08	0.0-2.9	1.0-2.0	.10	.28	5	5	56
	5-9	5-12	1.45-1.60	6.0-20.0	0.02-0.05	0.0-2.9	0.5-2.0	.05	.20			
	9-60	1-5	1.45-1.60	20.0-20.0	0.02-0.05	0.0-2.9	0.0-0.5	.05	.15			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
8:												
Bartonhill-----	0-3	8-15	1.30-1.45	2.0-6.0	0.06-0.09	0.0-2.9	1.0-2.0	.15	.32	3	5	56
	3-12	8-15	1.30-1.45	2.0-6.0	0.06-0.09	0.0-2.9	1.0-2.0	.15	.24			
	12-22	8-15	1.30-1.45	2.0-6.0	0.12-0.14	0.0-2.9	1.0-2.0	.20	.24			
	22-46	3-8	1.30-1.45	20.0-20.0	0.04-0.06	0.0-2.9	0.0-0.5	.02	.20			
	46-56	3-8	1.30-1.45	20.0-20.0	0.09-0.10	0.0-2.9	0.0-0.5	.10	.10			
	56-60	3-8	1.30-1.45	20.0-20.0	0.04-0.06	0.0-2.9	0.0-0.5	.02	.28			
Whitecloud-----	0-5	10-18	1.40-1.55	0.6-2.0	0.06-0.09	0.0-2.9	0.8-2.0	.10	.32	2	6	48
	5-19	7-15	1.65-1.70	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.10	.43			
	19-60	3-8	1.65-1.70	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.20			
9:												
Bayhorse, north-----	0-8	12-22	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.24	.32	1	6	48
	8-12	18-27	1.35-1.45	0.6-2.0	0.09-0.12	0.0-2.9	0.5-1.0	.17	.32			
	12-18	27-30	1.25-1.35	0.6-2.0	0.09-0.11	3.0-5.9	0.5-1.0	.10	.32			
	18-28	---	---	---	---	---	---	---	---			
Bayhorse, south-----	0-2	12-22	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.24	.32	1	6	48
	2-12	18-27	1.35-1.45	0.6-2.0	0.09-0.12	0.0-2.9	0.5-1.0	.17	.32			
	12-16	---	---	---	---	---	---	---	---			
10:												
Bayhorse-----	0-2	12-22	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.24	.32	1	6	48
	2-12	18-27	1.35-1.45	0.6-2.0	0.09-0.12	0.0-2.9	0.5-1.0	.17	.32			
	12-16	---	---	---	---	---	---	---	---			
Dawtonia-----	0-3	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	3-10	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	10-60	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
11:												
Bigflat-----	0-10	18-26	1.15-1.30	0.2-0.6	0.14-0.18	0.0-2.9	2.0-3.0	.24	.37	2	6	48
	10-15	40-55	1.00-1.20	0.06-0.2	0.14-0.16	9.0-25.0	1.0-2.0	.20	.24			
	15-49	28-38	1.00-1.20	0.06-0.2	0.19-0.21	6.0-8.9	0.5-1.0	.32	.32			
	49-61	20-35	1.15-1.25	0.2-0.6	0.08-0.11	3.0-5.9	0.0-0.5	.10	.28			
Dacont-----	0-8	15-20	1.35-1.45	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.37	5	6	48
	8-18	20-32	1.35-1.45	0.6-2.0	0.08-0.11	3.0-5.9	0.5-2.0	.15	.37			
	18-60	15-22	1.40-1.50	0.6-2.0	0.02-0.05	0.0-2.9	0.0-0.5	.10	.32			
12:												
Biglost-----	0-5	10-15	1.30-1.45	2.0-6.0	0.11-0.14	0.0-2.9	2.0-3.0	.20	.28	3	4	86
	5-23	8-15	1.30-1.45	2.0-6.0	0.12-0.15	0.0-2.9	1.0-3.0	.28	.28			
	23-60	0-5	1.25-1.40	20.0-20.0	0.02-0.04	0.0-2.9	0.5-1.0	.05	.20			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
12: Copperbasin-----	0-5	10-15	1.30-1.45	2.0-6.0	0.07-0.09	0.0-2.9	1.0-2.0	.10	.32	5	5	56
	5-25	8-12	1.25-1.40	6.0-20.0	0.04-0.05	0.0-2.9	0.5-2.0	.05	.17			
	25-33	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.02	.20			
	33-60	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
13: Bigrant, very poorly drained-----	0-5	28-35	1.15-1.30	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.32	.32	5	8	0
	5-60	30-45	1.25-1.40	0.2-0.6	0.17-0.20	3.0-5.9	0.0-0.5	.28	.28			
Bigrant, poorly drained-----	0-19	28-33	1.20-1.35	0.2-0.6	0.19-0.21	3.0-5.9	2.0-4.0	.32	.32	5	8	0
	19-25	30-38	1.25-1.40	0.2-0.6	0.18-0.21	3.0-5.9	0.0-0.5	.32	.32			
	25-29	40-50	1.25-1.40	0.2-0.6	0.18-0.21	3.0-5.9	0.0-0.5	.32	.32			
	29-60	20-26	1.25-1.40	0.2-0.6	0.18-0.21	3.0-5.9	0.0-0.5	.32	.32			
14: Bigrant-----	0-19	20-27	1.10-1.25	0.6-2.0	0.19-0.21	0.0-2.9	2.0-4.0	.37	.37	5	8	0
	19-25	30-38	1.25-1.40	0.2-0.6	0.18-0.21	3.0-5.9	0.0-0.5	.32	.32			
	25-29	40-50	1.25-1.40	0.2-0.6	0.18-0.21	3.0-5.9	0.0-0.5	.32	.32			
	29-60	20-26	1.25-1.40	0.2-0.6	0.18-0.21	3.0-5.9	0.0-0.5	.32	.32			
Thosand-----	0-5	15-26	1.20-1.35	0.6-2.0	0.18-0.20	0.0-2.9	2.0-3.0	.49	.55	4	8	0
	5-22	18-26	1.20-1.35	0.6-2.0	0.14-0.20	0.0-2.9	1.0-2.0	.37	.37			
	22-39	18-27	1.20-1.35	0.6-2.0	0.09-0.17	0.0-2.9	0.5-1.0	.17	.32			
	39-44	14-20	1.25-1.45	0.6-2.0	0.07-0.12	0.0-2.9	0.0-0.5	.17	.32			
	44-60	2-8	1.35-1.50	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
Dickeypeak-----	0-3	30-33	1.20-1.35	0.6-2.0	0.17-0.19	0.0-2.9	1.0-2.0	.43	.43	5	4L	86
	3-32	25-34	1.25-1.40	0.6-2.0	0.17-0.19	0.0-2.9	0.5-1.0	.32	.32			
	32-52	16-24	1.25-1.40	0.6-6.0	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	52-60	10-18	1.30-1.45	2.0-6.0	0.07-0.08	0.0-2.9	0.0-0.5	.15	.28			
	60-65	0-6	1.50-1.60	20.0-20.0	0.04-0.07	0.0-2.9	0.0-0.5	.05	.17			
15: Blackfoot-----	0-10	16-22	1.20-1.40	0.6-2.0	0.19-0.21	0.0-2.9	1.0-3.0	.37	.37	5	5	56
	10-27	18-26	1.25-1.50	0.6-2.0	0.16-0.18	0.0-2.9	0.5-2.0	.43	.43			
	27-60	18-35	1.30-1.60	0.6-6.0	0.13-0.21	0.0-2.9	0.5-1.0	.37	.37			
16: Blackfoot-----	0-10	16-22	1.20-1.40	0.6-2.0	0.19-0.21	0.0-2.9	1.0-3.0	.37	.37	5	5	56
	10-27	18-26	1.25-1.50	0.6-2.0	0.16-0.18	0.0-2.9	0.5-2.0	.43	.43			
	27-60	18-35	1.30-1.60	0.6-6.0	0.13-0.21	0.0-2.9	0.5-1.0	.37	.37			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
16: Borco-----	0-2	8-15	1.15-1.30	0.6-2.0	0.05-0.10	0.0-2.9	1.0-3.0	.15	.37	2	7	38
	2-10	8-15	1.20-1.40	0.6-2.0	0.05-0.10	0.0-2.9	1.0-2.0	.15	.37			
	10-60	1-6	1.20-1.40	20.0-20.0	0.01-0.03	0.0-2.9	0.0-1.0	.05	.20			
17: Bluedome-----	0-3	8-14	1.40-1.50	0.6-2.0	0.16-0.18	0.0-2.9	1.0-2.0	.32	.37	3	4L	86
	3-34	10-16	1.50-1.60	0.6-2.0	0.10-0.19	0.0-2.9	0.0-0.5	.32	.37			
	34-46	---	---	---	---	---	---	---	---			
	46-60	5-12	1.60-1.70	20.0-20.0	0.01-0.02	0.0-2.9	0.0-0.5	.10	.20			
18: Bock-----	0-7	14-18	1.20-1.40	0.6-2.0	0.14-0.20	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	7-60	14-18	1.40-1.60	0.6-2.0	0.14-0.20	0.0-2.9	0.5-2.0	.32	.43			
Breitenbach-----	0-10	12-20	1.10-1.20	2.0-6.0	0.10-0.13	0.0-2.9	1.0-2.0	.32	.32	5	5	56
	10-21	10-16	1.15-1.30	0.6-2.0	0.09-0.12	0.0-2.9	0.5-1.0	.17	.32			
	21-60	10-16	1.20-1.40	2.0-6.0	0.05-0.09	0.0-2.9	0.5-1.0	.10	.24			
19: Bock-----	0-18	14-18	1.20-1.40	0.6-2.0	0.14-0.20	0.0-2.9	1.0-3.0	.32	.32	4	5	56
	18-48	14-18	1.40-1.60	0.6-2.0	0.14-0.20	0.0-2.9	0.5-2.0	.32	.43			
	48-60	3-10	1.60-1.70	20.0-20.0	0.03-0.05	0.0-2.9	0.5-1.0	.05	.15			
Bromaglin-----	0-5	12-22	1.10-1.25	0.6-2.0	0.16-0.20	0.0-2.9	1.0-2.0	.37	.37	3	5	56
	5-12	12-18	1.10-1.25	0.6-2.0	0.12-0.16	0.0-2.9	0.5-1.0	.20	.32			
	12-20	12-22	1.10-1.25	0.6-2.0	0.10-0.16	0.0-2.9	0.5-1.0	.20	.32			
	20-60	2-8	1.40-1.60	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.20			
20: Bockston-----	0-8	10-18	1.25-1.35	0.6-2.0	0.17-0.21	0.0-2.9	1.0-3.0	.37	.43	5	5	56
	8-34	10-22	1.30-1.40	0.6-2.0	0.14-0.21	0.0-2.9	1.0-2.0	.37	.43			
	34-47	12-20	1.35-1.45	0.6-2.0	0.13-0.18	0.0-2.9	0.0-0.5	.32	.37			
	47-60	5-15	1.45-1.55	2.0-6.0	0.10-0.13	0.0-2.9	0.0-0.5	.28	.37			
21: Brabas-----	0-3	19-26	1.10-1.25	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.10	.32	5	8	0
	3-8	27-36	1.15-1.25	0.2-0.6	0.12-0.16	3.0-5.9	0.5-1.0	.28	.37			
	8-17	40-52	1.20-1.30	0.06-0.2	0.16-0.18	6.0-8.9	0.0-0.5	.37	.43			
	17-30	10-18	1.20-1.35	0.6-20.0	0.03-0.08	0.0-2.9	0.0-0.5	.05	.32			
	30-60	40-50	1.30-1.40	0.06-0.2	0.12-0.14	6.0-8.9	0.0-0.5	.28	.37			
Heathcoat-----	0-3	15-26	1.20-1.30	0.6-2.0	0.12-0.16	3.0-5.9	3.0-5.0	.17	.32	5	7	38
	3-7	22-40	1.25-1.45	0.2-2.0	0.13-0.20	3.0-5.9	2.0-3.0	.32	.43			
	7-60	36-50	1.25-1.45	0.06-0.2	0.12-0.20	6.0-8.9	0.5-2.0	.32	.43			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
22: Breitenbach-----	0-5	12-20	1.15-1.30	0.6-2.0	0.12-0.16	0.0-2.9	1.0-2.0	.17	.32	3	6	48
	5-18	10-16	1.15-1.30	0.6-2.0	0.09-0.12	0.0-2.9	0.5-1.0	.17	.32			
	18-40	10-16	1.20-1.40	2.0-6.0	0.05-0.09	0.0-2.9	0.5-1.0	.10	.24			
	40-60	0-8	1.20-1.40	20.0-20.0	0.02-0.05	0.0-2.9	0.0-0.5	.05	.20			
23: Breitenbach-----	0-5	12-20	1.15-1.30	0.6-2.0	0.12-0.16	0.0-2.9	1.0-2.0	.17	.32	3	6	48
	5-18	10-16	1.15-1.30	0.6-2.0	0.09-0.12	0.0-2.9	0.5-1.0	.17	.32			
	18-40	10-16	1.20-1.40	2.0-6.0	0.05-0.09	0.0-2.9	0.5-1.0	.10	.24			
	40-60	0-8	1.20-1.40	20.0-20.0	0.02-0.05	0.0-2.9	0.0-0.5	.05	.20			
24: Breitenbach-----	0-5	12-20	1.15-1.30	0.6-2.0	0.12-0.16	0.0-2.9	1.0-2.0	.17	.32	3	6	48
	5-18	10-16	1.15-1.30	0.6-2.0	0.09-0.12	0.0-2.9	0.5-1.0	.17	.32			
	18-40	10-16	1.20-1.40	2.0-6.0	0.05-0.09	0.0-2.9	0.5-1.0	.10	.24			
	40-60	0-8	1.20-1.40	20.0-20.0	0.02-0.05	0.0-2.9	0.0-0.5	.05	.20			
25: Bunting-----	0-10	12-22	1.40-1.50	0.6-2.0	0.11-0.15	0.0-2.9	2.0-3.0	.15	.37	3	6	48
	10-18	12-16	1.40-1.50	0.6-2.0	0.06-0.14	0.0-2.9	1.0-2.0	.15	.37			
	18-22	10-13	1.50-1.60	2.0-6.0	0.04-0.14	0.0-2.9	0.5-1.0	.10	.32			
	22-60	5-11	1.60-1.70	20.0-20.0	0.01-0.05	0.0-2.9	0.0-0.5	.05	.17			
26: Bunting-----	0-4	12-22	1.40-1.50	0.6-2.0	0.11-0.15	0.0-2.9	2.0-3.0	.15	.37	3	6	48
	4-15	12-16	1.40-1.50	0.6-2.0	0.06-0.14	0.0-2.9	1.0-2.0	.15	.37			
	15-22	10-13	1.50-1.60	2.0-6.0	0.04-0.14	0.0-2.9	0.5-1.0	.10	.32			
	22-60	5-11	1.60-1.70	20.0-20.0	0.01-0.05	0.0-2.9	0.0-0.5	.05	.17			
27: Bunting-----	0-10	12-22	1.40-1.50	0.6-2.0	0.11-0.15	0.0-2.9	2.0-3.0	.15	.37	3	6	48
	10-18	12-16	1.40-1.50	0.6-2.0	0.06-0.14	0.0-2.9	1.0-2.0	.15	.37			
	18-22	10-13	1.50-1.60	2.0-6.0	0.04-0.14	0.0-2.9	0.5-1.0	.10	.32			
	22-60	5-11	1.60-1.70	20.0-20.0	0.01-0.05	0.0-2.9	0.0-0.5	.05	.17			
Moffspring-----	0-7	16-25	1.40-1.50	0.6-2.0	0.17-0.20	0.0-2.9	2.0-3.0	.24	.32	3	5	56
	7-15	28-32	1.40-1.50	0.2-0.6	0.19-0.21	3.0-5.9	1.0-2.0	.24	.32			
	15-22	10-16	1.40-1.50	0.6-2.0	0.17-0.21	0.0-2.9	1.0-2.0	.17	.28			
	22-60	5-10	1.50-1.60	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.17			
28: Bursteadt-----	0-5	10-17	1.15-1.30	0.6-2.0	0.14-0.18	0.0-2.9	1.0-2.0	.37	.37	3	3	86
	5-20	8-18	1.20-1.40	2.0-6.0	0.13-0.17	0.0-2.9	1.0-2.0	.37	.37			
	20-31	8-18	1.20-1.40	2.0-6.0	0.13-0.17	0.0-2.9	1.0-2.0	.37	.37			
	31-60	0-5	1.35-1.55	20.0-20.0	0.02-0.06	0.0-2.9	0.5-1.0	.10	.17			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
28: Tohobit-----	0-9	12-22	1.10-1.25	0.6-2.0	0.16-0.20	0.0-2.9	1.0-2.0	.37	.37	3	8	0
	9-21	10-18	1.10-1.25	0.6-2.0	0.14-0.19	0.0-2.9	0.5-1.0	.20	.32			
	21-60	0-10	1.35-1.55	20.0-20.0	0.01-0.14	0.0-2.9	0.0-0.5	.05	.20			
29: Busterback-----	0-4	12-19	1.30-1.45	0.6-2.0	0.08-0.11	0.0-2.9	2.0-4.0	.17	.37	3	7	38
	4-13	12-19	1.30-1.45	0.6-2.0	0.08-0.11	0.0-2.9	2.0-4.0	.15	.37			
	13-30	10-18	1.15-1.30	0.6-2.0	0.05-0.10	0.0-2.9	1.0-3.0	.05	.24			
	30-60	0-5	1.25-1.40	20.0-20.0	0.01-0.03	0.0-2.9	0.5-1.0	.02	.15			
Wiggleton-----	0-10	8-12	1.35-1.50	2.0-6.0	0.10-0.13	0.0-2.9	2.0-3.0	.15	.43	2	7	38
	10-18	8-12	1.60-1.65	2.0-6.0	0.06-0.08	0.0-2.9	0.5-2.0	.05	.15			
	18-60	1-8	1.55-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
30: Calcids-----	0-3	12-20	1.60-1.65	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.15	.37	2	7	38
	3-7	12-20	1.60-1.65	0.6-6.0	0.06-0.11	0.0-2.9	0.5-1.0	.15	.37			
	7-25	10-18	1.55-1.60	0.6-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.05	.37			
	25-60	10-18	1.55-1.60	0.6-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.05	.37			
Badland-----	---	---	---	---	---	---	---	---	---	---	---	---
Xerolls-----	0-5	12-20	1.10-1.20	0.6-2.0	0.16-0.20	0.0-2.9	1.0-3.0	.37	.37	5	5	56
	5-16	15-24	1.15-1.30	0.6-2.0	0.14-0.18	0.0-2.9	0.5-1.5	.24	.43			
	16-60	12-50	1.15-1.45	0.00-0.06	0.06-0.15	6.0-8.9	0.0-0.5	.32	.37			
31: Calcids-----	0-2	12-20	1.60-1.65	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.15	.37	2	7	38
	2-16	12-20	1.60-1.65	0.6-6.0	0.06-0.11	0.0-2.9	0.5-1.0	.15	.37			
	16-37	10-18	1.55-1.60	0.6-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.05	.37			
	37-60	10-18	1.55-1.60	0.6-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.05	.37			
Rubble land-----	---	---	---	---	---	---	---	---	---	---	---	---
Rock outcrop-----	---	---	---	---	---	---	---	---	---	---	---	---
32: Castlepeak-----	0-2	4-10	1.30-1.45	2.0-6.0	0.06-0.08	0.0-2.9	1.0-3.0	.15	.32	5	5	56
	2-7	2-8	1.45-1.60	20.0-20.0	0.03-0.06	0.0-2.9	0.5-1.0	.15	.24			
	7-60	0-5	1.50-1.65	20.0-20.0	0.02-0.05	0.0-2.9	0.0-0.5	.05	.24			
Yankeefork-----	0-2	5-15	1.30-1.45	2.0-6.0	0.08-0.10	0.0-2.9	2.0-4.0	.17	.32	3	4	86
	2-28	5-15	1.30-1.45	2.0-6.0	0.06-0.10	0.0-2.9	0.5-1.0	.10	.32			
	28-60	0-5	1.45-1.60	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.05	.20			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
33: Chamberlain-----	0-2	15-22	1.25-1.40	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.20	.37	3	6	48
	2-13	22-34	1.25-1.40	0.2-0.6	0.13-0.17	3.0-5.9	1.0-2.0	.20	.43			
	13-26	20-34	1.15-1.30	0.2-0.6	0.08-0.13	3.0-5.9	0.5-1.0	.10	.32			
	26-34	6-16	1.55-1.65	2.0-6.0	0.06-0.08	0.0-2.9	0.0-0.5	.10	.28			
	34-60	3-8	1.50-1.60	6.0-20.0	0.03-0.08	0.0-2.9	0.0-0.5	.05	.20			
34: Coalkiln-----	0-4	12-20	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.10	.32	2	6	48
	4-17	18-25	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	0.5-2.0	.10	.37			
	17-37	18-25	1.35-1.40	0.6-2.0	0.09-0.11	0.0-2.9	0.5-2.0	.10	.37			
	37-60	8-12	1.40-1.50	2.0-6.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.37			
Zeelnot-----	0-10	15-20	1.20-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	2	6	48
	10-24	16-22	1.30-1.45	0.6-2.0	0.08-0.09	0.0-2.9	0.5-1.0	.10	.32			
	24-32	16-22	1.40-1.55	0.6-2.0	0.06-0.08	3.0-5.9	0.0-0.5	.05	.32			
	32-60	27-39	1.50-1.65	0.2-0.6	0.04-0.06	3.0-5.9	0.0-0.5	.02	.28			
35: Copperbasin-----	0-10	10-15	1.30-1.45	2.0-6.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	5	4	86
	10-27	8-12	1.25-1.40	6.0-20.0	0.04-0.05	0.0-2.9	0.5-2.0	.05	.17			
	27-60	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
Redfish-----	0-4	8-15	1.30-1.45	2.0-6.0	0.08-0.10	0.0-2.9	2.0-3.0	.10	.17	3	8	0
	4-22	8-16	1.35-1.50	2.0-6.0	0.07-0.12	0.0-2.9	1.0-2.0	.10	.24			
	22-60	0-5	1.45-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.05	.20			
36: Copperbasin-----	0-5	10-15	1.30-1.45	2.0-6.0	0.07-0.09	0.0-2.9	1.0-2.0	.10	.32	5	5	56
	5-25	8-12	1.25-1.40	6.0-20.0	0.04-0.05	0.0-2.9	0.5-2.0	.05	.17			
	25-33	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.02	.20			
	33-60	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
Redfish-----	0-5	8-15	1.30-1.45	2.0-6.0	0.08-0.10	0.0-2.9	2.0-3.0	.10	.17	2	8	0
	5-10	8-16	1.35-1.50	2.0-6.0	0.07-0.12	0.0-2.9	1.0-2.0	.10	.24			
	10-60	0-5	1.45-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.05	.20			
37: Cowbone-----	0-16	10-15	1.10-1.25	0.6-2.0	0.19-0.21	0.0-2.9	2.0-3.0	.37	.37	4	8	0
	16-24	10-18	1.10-1.25	0.6-2.0	0.19-0.21	0.0-2.9	1.0-2.0	.37	.37			
	24-54	2-10	1.25-1.40	0.6-6.0	0.13-0.17	0.0-2.9	0.5-2.0	.32	.37			
	54-60	2-10	1.30-1.50	6.0-20.0	0.04-0.10	0.0-2.9	0.0-1.0	.10	.28			
Tohobit-----	0-9	12-22	1.10-1.25	0.6-2.0	0.16-0.20	0.0-2.9	1.0-2.0	.37	.37	3	8	0
	9-21	10-18	1.10-1.25	0.6-2.0	0.14-0.19	0.0-2.9	0.5-1.0	.20	.32			
	21-60	0-10	1.35-1.55	20.0-20.0	0.01-0.14	0.0-2.9	0.0-0.5	.05	.20			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
38:												
Cronks-----	0-10	20-25	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	5	7	38
	10-35	35-50	1.30-1.40	0.06-0.2	0.04-0.07	6.0-8.9	0.5-2.0	.05	.17			
	35-55	20-35	1.40-1.50	0.2-2.0	0.08-0.13	3.0-5.9	0.0-0.5	.10	.43			
	55-70	20-35	1.40-1.50	0.2-2.0	0.08-0.13	3.0-5.9	0.0-0.5	.10	.43			
Challis-----	0-4	28-35	1.15-1.25	0.2-0.6	0.13-0.17	3.0-5.9	2.0-3.0	.10	.28	5	7	38
	4-23	40-50	1.15-1.25	0.06-0.2	0.06-0.10	3.0-5.9	1.0-2.0	.05	.24			
	23-60	18-25	1.20-1.35	0.6-2.0	0.07-0.11	0.0-2.9	0.5-1.0	.10	.32			
39:												
Cronks-----	0-10	20-25	1.30-1.40	0.6-2.0	0.07-0.11	0.0-2.9	1.0-2.0	.10	.37	5	8	0
	10-35	35-50	1.30-1.40	0.06-0.2	0.04-0.07	6.0-8.9	0.5-2.0	.05	.17			
	35-55	20-35	1.40-1.50	0.2-2.0	0.08-0.13	3.0-5.9	0.0-0.5	.10	.43			
	55-70	20-35	1.40-1.50	0.2-2.0	0.08-0.13	3.0-5.9	0.0-0.5	.10	.43			
Venum-----	0-2	15-26	1.30-1.40	0.6-2.0	0.07-0.11	3.0-5.9	1.0-2.0	.10	.37	5	8	0
	2-9	35-50	1.30-1.40	0.06-0.2	0.08-0.13	3.0-5.9	1.0-2.0	.10	.37			
	9-26	35-50	1.30-1.40	0.06-0.2	0.08-0.13	3.0-5.9	0.0-0.5	.10	.37			
	26-60	22-38	1.25-1.35	0.2-0.6	0.09-0.13	3.0-5.9	0.0-0.5	.10	.43			
40:												
Cryolls-----	0-3	12-27	1.20-1.50	0.6-2.0	0.08-0.11	0.0-2.9	2.0-5.0	.15	.37	5	6	48
	3-33	12-35	1.20-1.60	0.2-6.0	0.05-0.09	0.0-2.9	1.0-3.0	.15	.37			
	33-60	5-27	1.40-1.75	0.6-20.0	0.01-0.11	0.0-2.9	0.5-2.0	.05	.28			
Rubble land-----	---	---	---	---	---	---	---	---	---	---	---	---
41:												
Cryolls-----	0-3	12-27	1.20-1.50	0.6-2.0	0.08-0.11	0.0-2.9	2.0-5.0	.15	.37	2	6	48
	3-12	12-35	1.20-1.60	0.2-6.0	0.05-0.09	0.0-2.9	1.0-3.0	.15	.37			
	12-33	5-27	1.40-1.75	0.6-20.0	0.01-0.11	0.0-2.9	0.5-2.0	.05	.28			
	33-43	---	---	---	---	---	---	---	---			
Rubble land-----	---	---	---	---	---	---	---	---	---	---	---	---
Rock outcrop-----	---	---	---	---	---	---	---	---	---	---	---	---
42:												
Cryepts-----	0-3	10-20	1.55-1.65	0.6-6.0	0.09-0.11	0.0-2.9	2.0-4.0	.15	.32	5	7	38
	3-8	10-20	1.55-1.65	0.6-6.0	0.08-0.11	0.0-2.9	0.5-2.0	.05	.32			
	8-60	5-20	1.60-1.65	6.0-20.0	0.03-0.06	0.0-2.9	0.0-0.5	.05	.28			
Rubble land-----	---	---	---	---	---	---	---	---	---	---	---	---
Rock outcrop-----	---	---	---	---	---	---	---	---	---	---	---	---

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
43: Custco-----	0-10	12-22	1.60-1.65	0.6-2.0	0.10-0.14	0.0-2.9	1.0-3.0	.15	.32	5	6	48
	10-21	18-27	1.50-1.60	0.6-2.0	0.09-0.11	3.0-5.9	1.0-2.0	.15	.32			
	21-60	6-15	1.60-1.70	2.0-20.0	0.03-0.10	0.0-2.9	0.0-0.5	.05	.32			
44: Dacont-----	0-4	15-20	1.35-1.45	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	4-10	20-32	1.35-1.45	0.6-2.0	0.08-0.11	3.0-5.9	0.5-2.0	.15	.37			
	10-18	16-22	1.35-1.45	0.6-2.0	0.07-0.08	0.0-2.9	0.0-0.5	.10	.32			
	18-60	15-22	1.40-1.50	0.6-2.0	0.02-0.05	0.0-2.9	0.0-0.5	.10	.32			
Custco-----	0-4	12-22	1.60-1.65	0.6-2.0	0.10-0.14	0.0-2.9	1.0-3.0	.17	.32	5	6	48
	4-17	18-27	1.50-1.60	0.6-2.0	0.09-0.11	3.0-5.9	1.0-2.0	.15	.32			
	17-60	6-15	1.60-1.70	2.0-20.0	0.03-0.10	0.0-2.9	0.0-0.5	.05	.32			
45: Dacont-----	0-3	15-20	1.35-1.45	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	3-28	20-32	1.35-1.45	0.6-2.0	0.08-0.11	3.0-5.9	0.5-2.0	.15	.37			
	28-41	16-22	1.35-1.45	0.6-2.0	0.07-0.08	0.0-2.9	0.0-0.5	.10	.32			
	41-60	15-22	1.40-1.50	0.6-2.0	0.02-0.05	0.0-2.9	0.0-0.5	.10	.32			
Resoot-----	0-11	16-22	1.30-1.40	0.6-2.0	0.11-0.13	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	11-60	35-50	1.40-1.50	0.06-0.2	0.05-0.10	6.0-8.9	0.5-1.0	.10	.37			
Nielsen-----	0-3	15-20	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.20	.37	1	6	48
	3-15	20-35	1.60-1.70	0.2-0.6	0.08-0.13	3.0-5.9	1.0-2.0	.10	.43			
	15-25	---	---	---	---	---	---	---	---			
46: Dacont-----	0-2	15-20	1.35-1.45	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	2-20	20-32	1.35-1.45	0.6-2.0	0.08-0.11	3.0-5.9	0.5-2.0	.15	.37			
	20-60	16-22	1.35-1.45	0.6-2.0	0.07-0.08	0.0-2.9	0.0-0.5	.10	.32			
Zeebar-----	0-3	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	3-13	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	13-19	20-30	1.50-1.60	0.2-0.6	0.07-0.12	0.0-2.9	0.5-1.0	.15	.32			
	19-29	25-30	1.50-1.65	0.2-0.6	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
	29-60	15-25	1.50-1.65	0.6-2.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
47: Darlington-----	0-7	15-22	1.10-1.20	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.17	.37	3	7	38
	7-33	15-22	1.15-1.30	0.6-2.0	0.09-0.13	0.0-2.9	0.5-2.0	.17	.32			
	33-60	0-5	1.20-1.40	20.0-20.0	0.02-0.05	0.0-2.9	0.5-1.0	.05	.17			
Lesbut-----	0-4	12-22	1.10-1.20	0.6-2.0	0.11-0.15	0.0-2.9	1.0-2.0	.32	.37	2	6	48
	4-18	8-18	1.15-1.30	0.6-2.0	0.09-0.15	0.0-2.9	1.0-2.0	.28	.37			
	18-60	0-5	1.20-1.40	20.0-20.0	0.01-0.04	0.0-2.9	0.0-0.5	.02	.17			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
48: Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
49: Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
Dawtonia, cold-----	0-2	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	2-9	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	9-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
50: Dawtonia, cold-----	0-2	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	2-9	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	9-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
51: Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.15	.32	5	6	48
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
Frailton-----	0-2	12-20	1.30-1.45	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.28	.37	2	6	48
	2-6	12-20	1.25-1.40	0.6-2.0	0.05-0.10	0.0-2.9	0.5-1.0	.17	.37			
	6-11	13-21	1.10-1.25	2.0-6.0	0.02-0.03	0.0-2.9	0.5-1.0	.05	.32			
	11-15	---	---	---	---	---	---	---	---			
52: Dawtonia-----	0-3	15-25	1.40-1.55	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.15	.32	5	6	48
	3-34	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	34-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
Kehar-----	0-4	18-25	1.25-1.35	0.6-2.0	0.13-0.17	0.0-2.9	1.0-2.0	.20	.37	5	7	38
	4-35	28-50	1.40-1.50	0.06-0.2	0.11-0.19	6.0-8.9	0.5-1.0	.37	.43			
	35-60	32-45	1.35-1.45	0.06-0.6	0.08-0.13	3.0-5.9	0.0-0.5	.15	.43			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
52: Soen-----	0-7	20-26	1.30-1.45	0.6-2.0	0.15-0.19	3.0-5.9	1.0-2.0	.28	.37	5	7	38
	7-20	35-50	1.40-1.55	0.06-0.2	0.14-0.20	6.0-8.9	0.5-2.0	.24	.28			
	20-60	27-33	1.40-1.55	0.2-0.6	0.13-0.17	3.0-5.9	0.0-0.5	.20	.28			
53: Dawtonia-----	0-3	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	3-10	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	10-60	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
Rock outcrop-----	---	---	---	---	---	---	---	---	---	---	---	---
54: Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.15	.32	5	6	48
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
Custco-----	0-4	12-22	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	1.0-3.0	.15	.32	5	7	38
	4-17	18-27	1.50-1.60	0.6-2.0	0.09-0.11	3.0-5.9	1.0-2.0	.15	.32			
	17-60	6-15	1.60-1.70	2.0-20.0	0.03-0.10	0.0-2.9	0.0-0.5	.05	.32			
55: Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
Dacont-----	0-3	15-20	1.35-1.45	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.37	5	6	48
	3-28	20-32	1.35-1.45	0.6-2.0	0.08-0.11	3.0-5.9	0.5-2.0	.15	.37			
	28-41	16-22	1.35-1.45	0.6-2.0	0.07-0.08	0.0-2.9	0.0-0.5	.10	.32			
	41-60	15-22	1.40-1.50	0.6-2.0	0.02-0.05	0.0-2.9	0.0-0.5	.10	.32			
56: Derwell-----	0-2	8-15	1.30-1.45	2.0-6.0	0.11-0.15	0.0-2.9	1.0-2.0	.24	.32	4	4	86
	2-15	8-15	1.55-1.70	0.6-2.0	0.11-0.15	0.0-2.9	0.5-1.0	.28	.32			
	15-45	8-15	1.30-1.45	2.0-6.0	0.09-0.12	0.0-2.9	0.0-0.5	.17	.28			
	45-60	0-5	1.25-1.40	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.10			
Whiteknob-----	0-4	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	2	5	56
	4-11	5-10	1.40-1.50	2.0-6.0	0.05-0.10	0.0-2.9	0.5-1.0	.10	.37			
	11-60	3-8	1.40-1.50	20.0-20.0	0.03-0.05	0.0-2.9	0.5-1.0	.05	.20			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
57:												
Derwell-----	0-2	8-15	1.30-1.45	2.0-6.0	0.11-0.15	0.0-2.9	1.0-2.0	.24	.32	4	4	86
	2-15	8-15	1.55-1.70	0.6-2.0	0.11-0.15	0.0-2.9	0.5-1.0	.28	.32			
	15-45	8-15	1.30-1.45	2.0-6.0	0.09-0.12	0.0-2.9	0.0-0.5	.17	.28			
	45-60	0-5	1.25-1.40	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.10			
Zer-----	0-5	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	5-14	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	14-26	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
	26-60	2-8	1.55-1.65	6.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
Packmo-----	0-3	12-22	1.30-1.45	0.6-2.0	0.12-0.14	0.0-2.9	1.0-2.0	.24	.37	4	6	48
	3-10	12-22	1.30-1.45	0.6-2.0	0.12-0.14	0.0-2.9	0.5-1.0	.24	.37			
	10-40	10-18	1.30-1.45	0.6-6.0	0.06-0.08	0.0-2.9	0.0-0.5	.10	.32			
	40-60	5-10	1.20-1.30	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
58:												
Dickeypeak-----	0-3	30-33	1.20-1.35	0.6-2.0	0.17-0.19	0.0-2.9	1.0-2.0	.43	.43	5	4L	86
	3-32	25-34	1.25-1.40	0.6-2.0	0.17-0.19	0.0-2.9	0.5-1.0	.32	.32			
	32-52	16-24	1.25-1.40	0.6-6.0	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	52-60	10-18	1.30-1.45	2.0-6.0	0.07-0.08	0.0-2.9	0.0-0.5	.15	.28			
	60-65	0-6	1.50-1.60	20.0-20.0	0.04-0.07	0.0-2.9	0.0-0.5	.05	.17			
Bigrant-----	0-19	20-27	1.10-1.25	0.6-2.0	0.19-0.21	0.0-2.9	2.0-4.0	.37	.37	5	4L	86
	19-25	30-38	1.25-1.40	0.2-0.6	0.18-0.21	3.0-5.9	0.0-0.5	.32	.32			
	25-29	40-50	1.25-1.40	0.2-0.6	0.18-0.21	3.0-5.9	0.0-0.5	.32	.32			
	29-60	20-26	1.25-1.40	0.2-0.6	0.18-0.21	3.0-5.9	0.0-0.5	.32	.32			
59:												
Donkehill-----	0-3	13-18	1.40-1.55	0.6-2.0	0.06-0.08	0.0-2.9	2.0-5.0	.10	.37	1	7	38
	3-13	16-24	1.50-1.60	0.6-2.0	0.06-0.08	3.0-5.9	1.0-3.0	.10	.43			
	13-16	7-13	1.50-1.60	2.0-6.0	0.02-0.06	0.0-2.9	0.5-1.0	.02	.15			
	16-20	---	---	---	---	---	---	---	---			
60:												
Donkehill-----	0-3	13-18	1.40-1.55	0.6-2.0	0.06-0.08	0.0-2.9	2.0-5.0	.10	.37	1	7	38
	3-13	16-24	1.50-1.60	0.6-2.0	0.06-0.08	3.0-5.9	1.0-3.0	.10	.43			
	13-16	7-13	1.50-1.60	2.0-6.0	0.02-0.06	0.0-2.9	0.5-1.0	.02	.15			
	16-20	---	---	---	---	---	---	---	---			
Zeebar-----	0-8	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	8-22	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	22-35	20-30	1.50-1.60	0.2-0.6	0.07-0.12	0.0-2.9	0.5-1.0	.15	.32			
	35-49	25-30	1.50-1.65	0.2-0.6	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
	49-60	15-25	1.50-1.65	0.6-2.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
61: Donkehill-----	0-3	13-18	1.40-1.55	0.6-2.0	0.06-0.08	0.0-2.9	2.0-5.0	.10	.37	1	7	38
	3-13	16-24	1.50-1.60	0.6-2.0	0.06-0.08	3.0-5.9	1.0-3.0	.10	.43			
	13-16	7-13	1.50-1.60	2.0-6.0	0.02-0.06	0.0-2.9	0.5-1.0	.02	.15			
	16-20	---	---	---	---	---	---	---	---			
Zeebar-----	0-3	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	3-13	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	13-19	20-30	1.50-1.60	0.2-0.6	0.07-0.12	0.0-2.9	0.5-1.0	.15	.32			
	19-29	25-30	1.50-1.65	0.2-0.6	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
	29-60	15-25	1.50-1.65	0.6-2.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
62: Dumps, mine-----	---	---	---	---	---	---	---	---	---	---	---	---
63: Escarlo-----	0-3	16-22	1.00-1.10	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.24	.43	2	6	48
	3-11	20-27	1.10-1.20	0.6-2.0	0.14-0.17	3.0-5.9	1.0-2.0	.32	.37			
	11-32	34-45	1.10-1.20	0.2-0.6	0.12-0.17	3.0-5.9	0.5-2.0	.24	.43			
	32-48	34-40	1.00-1.20	0.2-0.6	0.10-0.13	3.0-5.9	0.0-0.5	.24	.37			
	48-60	35-50	1.00-1.10	0.2-0.6	0.17-0.19	3.0-5.9	0.0-0.5	.28	.37			
Heathcoat-----	0-2	15-26	1.20-1.30	0.6-2.0	0.12-0.16	3.0-5.9	3.0-5.0	.17	.32	5	6	48
	2-10	22-40	1.25-1.45	0.2-2.0	0.13-0.20	3.0-5.9	2.0-3.0	.32	.43			
	10-47	36-50	1.25-1.45	0.06-0.2	0.12-0.20	6.0-8.9	0.5-2.0	.32	.43			
	47-60	27-50	1.35-1.45	0.06-0.6	0.06-0.10	3.0-5.9	0.0-0.5	.15	.37			
64: Escarlo-----	0-11	16-22	1.00-1.10	0.6-2.0	0.19-0.21	0.0-2.9	1.0-2.0	.37	.43	2	5	56
	11-47	34-45	1.10-1.20	0.2-0.6	0.12-0.17	3.0-5.9	0.5-2.0	.24	.43			
	47-60	34-40	1.00-1.20	0.2-0.6	0.10-0.13	3.0-5.9	0.0-0.5	.24	.37			
Heathcoat-----	0-2	15-26	1.20-1.30	0.6-2.0	0.12-0.16	3.0-5.9	3.0-5.0	.17	.32	5	6	48
	2-10	22-40	1.25-1.45	0.2-2.0	0.13-0.20	3.0-5.9	2.0-3.0	.32	.43			
	10-47	36-50	1.25-1.45	0.06-0.2	0.12-0.20	6.0-8.9	0.5-2.0	.32	.43			
	47-60	27-50	1.35-1.45	0.06-0.6	0.06-0.10	3.0-5.9	0.0-0.5	.15	.37			
65: Ezbin-----	0-11	17-24	1.30-1.40	0.6-2.0	0.08-0.11	0.0-2.9	1.0-3.0	.10	.37	5	8	0
	11-30	27-33	1.40-1.50	0.2-0.6	0.05-0.07	3.0-5.9	0.5-2.0	.20	.43			
	30-50	22-33	1.50-1.60	0.2-0.6	0.08-0.11	3.0-5.9	0.5-1.0	.10	.43			
	50-60	20-25	1.50-1.60	0.6-2.0	0.07-0.08	3.0-5.9	0.0-0.5	.05	.43			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
65: Zeebar-----	0-8	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	8-22	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	22-35	20-30	1.50-1.60	0.2-0.6	0.07-0.12	0.0-2.9	0.5-1.0	.15	.32			
	35-49	25-30	1.50-1.65	0.2-0.6	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
	49-60	15-25	1.50-1.65	0.6-2.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
Nielsen-----	0-3	15-20	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.20	.37	1	6	48
	3-15	20-35	1.60-1.70	0.2-0.6	0.08-0.13	3.0-5.9	1.0-2.0	.10	.43			
	15-25	---	---	---	---	---	---	---	---			
66: Fadow-----	0-3	12-20	1.20-1.45	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	2	5	56
	3-12	12-20	1.25-1.45	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.15	.37			
	12-14	---	---	---	---	---	---	---	---			
	14-60	3-8	1.50-1.60	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.17			
67: Fadow-----	0-3	12-20	1.20-1.45	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	2	5	56
	3-12	12-20	1.25-1.45	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.15	.37			
	12-14	---	---	---	---	---	---	---	---			
	14-60	3-8	1.50-1.60	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.17			
Arbus-----	0-4	12-20	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	2	6	48
	4-16	12-20	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.15	.37			
	16-20	12-20	1.60-1.65	0.6-2.0	0.07-0.08	0.0-2.9	0.0-0.5	.05	.32			
	20-60	3-8	1.60-1.65	6.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.15			
68: Farvant-----	0-2	12-20	1.25-1.35	2.0-6.0	0.09-0.12	0.0-2.9	0.0-0.5	.20	.32	2	4	86
	2-7	12-20	1.30-1.40	2.0-6.0	0.07-0.11	0.0-2.9	0.0-0.5	.10	.24			
	7-11	12-20	1.10-1.25	2.0-6.0	0.05-0.08	0.0-2.9	0.0-0.5	.05	.32			
	11-15	---	---	---	---	---	0.0-0.5	---	---			
Badland-----	---	---	---	---	---	---	---	---	---	---	---	---
Gradco-----	0-3	12-18	1.25-1.35	2.0-6.0	0.09-0.12	0.0-2.9	1.0-2.0	.20	.32	3	4	86
	3-14	12-18	1.25-1.35	0.6-2.0	0.05-0.09	0.0-2.9	1.0-2.0	.15	.37			
	14-29	12-18	1.25-1.35	0.6-2.0	0.05-0.09	0.0-2.9	0.5-1.0	.05	.32			
	29-33	---	---	---	---	---	---	---	---			
69: Farvant-----	0-3	12-20	1.25-1.35	2.0-6.0	0.07-0.11	0.0-2.9	0.0-0.5	.24	.32	2	4	86
	3-15	12-20	1.30-1.40	2.0-6.0	0.07-0.11	0.0-2.9	0.0-0.5	.10	.24			
	15-19	---	---	---	---	---	0.0-0.5	---	---			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
69:												
Sactus-----	0-2	12-20	1.35-1.45	0.6-2.0	0.09-0.12	0.0-2.9	0.0-0.5	.15	.37	1	7	38
	2-9	12-20	1.30-1.40	0.6-2.0	0.07-0.10	0.0-2.9	0.0-0.5	.10	.37			
	9-19	---	---	---	---	---	---	---	---			
Dawtonia-----	0-5	15-25	1.40-1.55	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.15	.32	5	6	48
	5-24	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
70:												
Fezip-----	0-6	8-12	1.40-1.55	2.0-6.0	0.10-0.14	0.0-2.9	2.0-3.0	.24	.24	3	8	0
	6-16	2-10	1.40-1.55	2.0-6.0	0.06-0.09	0.0-2.9	1.0-3.0	.20	.20			
	16-26	8-12	1.40-1.55	2.0-6.0	0.10-0.14	0.0-2.9	1.0-3.0	.20	.28			
	26-60	0-5	1.45-1.60	20.0-20.0	0.01-0.04	0.0-2.9	0.5-1.0	.05	.20			
Lemroi-----	0-8	8-15	1.10-1.20	0.6-2.0	0.19-0.21	0.0-2.9	4.0-6.0	.28	.32	3	8	0
	8-15	5-18	1.15-1.30	0.6-2.0	0.16-0.19	0.0-2.9	2.0-3.0	.32	.37			
	15-23	5-18	1.25-1.40	2.0-6.0	0.04-0.05	0.0-2.9	1.0-2.0	.10	.43			
	23-60	2-10	1.30-1.45	20.0-20.0	0.02-0.03	0.0-2.9	0.0-1.0	.10	.43			
Redfish-----	0-5	8-15	1.40-1.55	2.0-6.0	0.11-0.13	0.0-2.9	2.0-3.0	.24	.28	2	8	0
	5-10	8-16	1.35-1.50	2.0-6.0	0.07-0.12	0.0-2.9	1.0-2.0	.10	.24			
	10-60	0-5	1.45-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.05	.20			
71:												
Fezip-----	0-6	8-12	1.40-1.55	2.0-6.0	0.10-0.14	0.0-2.9	2.0-3.0	.24	.24	3	8	0
	6-16	2-10	1.40-1.55	2.0-6.0	0.06-0.09	0.0-2.9	1.0-3.0	.20	.20			
	16-26	8-12	1.40-1.55	2.0-6.0	0.10-0.14	0.0-2.9	1.0-3.0	.20	.28			
	26-60	0-5	1.45-1.60	20.0-20.0	0.01-0.04	0.0-2.9	0.5-1.0	.05	.20			
Redfish-----	0-5	8-15	1.40-1.55	2.0-6.0	0.11-0.13	0.0-2.9	2.0-3.0	.24	.28	2	8	0
	5-10	8-16	1.35-1.50	2.0-6.0	0.07-0.12	0.0-2.9	1.0-2.0	.10	.24			
	10-60	0-5	1.45-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.05	.20			
Copperbasin-----	0-10	10-15	1.30-1.45	2.0-6.0	0.07-0.09	0.0-2.9	1.0-2.0	.10	.32	5	5	56
	10-60	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
72:												
Firebox-----	0-3	12-16	1.35-1.45	0.6-2.0	0.13-0.14	0.0-2.9	2.0-4.0	.24	.37	2	6	48
	3-15	10-14	1.50-1.60	2.0-6.0	0.06-0.07	0.0-2.9	1.0-2.0	.17	.37			
	15-60	1-6	1.60-1.70	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.05	.20			
73:												
Firebox-----	0-10	15-23	1.45-1.50	0.6-2.0	0.06-0.08	0.0-2.9	2.0-3.0	.02	.32	2	8	0
	10-16	12-19	1.55-1.60	2.0-6.0	0.04-0.06	0.0-2.9	0.5-2.0	.02	.10			
	16-60	2-8	1.50-1.60	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.17			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
74:												
Frailton-----	0-2	10-18	1.30-1.45	2.0-6.0	0.08-0.12	0.0-2.9	1.0-2.0	.24	.37	2	4	86
	2-10	12-20	1.25-1.40	0.6-2.0	0.05-0.10	0.0-2.9	0.5-1.0	.17	.37			
	10-14	13-21	1.10-1.25	2.0-6.0	0.02-0.03	0.0-2.9	0.5-1.0	.05	.32			
	14-18	---	---	---	---	---	---	---	---			
Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.15	.32	5	6	48
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
75:												
Frailton-----	0-1	12-20	1.30-1.45	0.6-2.0	0.05-0.10	0.0-2.9	1.0-2.0	.17	.37	2	7	38
	1-11	12-20	1.25-1.40	0.6-2.0	0.05-0.10	0.0-2.9	0.5-1.0	.17	.37			
	11-15	---	---	---	---	---	---	---	---			
Gradco-----	0-4	12-18	1.30-1.40	0.6-2.0	0.11-0.15	0.0-2.9	1.0-2.0	.20	.37	3	6	48
	4-9	12-18	1.25-1.35	0.6-2.0	0.05-0.09	0.0-2.9	1.0-2.0	.15	.37			
	9-30	12-18	1.25-1.35	0.6-2.0	0.05-0.09	0.0-2.9	0.5-1.0	.05	.32			
	30-34	---	---	---	---	---	---	---	---			
76:												
Friedman-----	0-8	16-25	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	5	6	48
	8-13	18-25	1.30-1.40	0.6-2.0	0.08-0.13	0.0-2.9	1.0-3.0	.15	.43			
	13-60	40-50	1.40-1.50	0.06-0.2	0.04-0.08	3.0-5.9	0.5-2.0	.05	.24			
Reck-----	0-3	16-25	1.30-1.40	0.2-0.6	0.10-0.12	3.0-5.9	2.0-3.0	.15	.32	5	6	48
	3-11	27-38	1.30-1.40	0.2-0.6	0.10-0.12	3.0-5.9	1.0-2.0	.15	.37			
	11-60	40-60	1.35-1.45	0.00-0.06	0.07-0.09	6.0-8.9	0.5-2.0	.10	.37			
Goldhill-----	0-5	20-25	1.20-1.30	0.6-2.0	0.14-0.17	3.0-5.9	2.0-3.0	.20	.24	5	6	48
	5-58	35-60	1.30-1.40	0.06-0.2	0.10-0.16	6.0-8.9	0.0-1.0	.15	.28			
	58-60	27-32	1.40-1.50	0.2-0.6	0.10-0.13	3.0-5.9	0.0-1.0	.10	.32			
77:												
Gaciba-----	0-4	12-18	1.20-1.35	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.17	.37	1	7	38
	4-12	16-24	1.50-1.60	0.6-2.0	0.09-0.11	0.0-2.9	0.5-2.0	.15	.37			
	12-16	---	---	---	---	---	---	---	---			
Cronks-----	0-10	20-25	1.30-1.40	0.6-2.0	0.07-0.11	0.0-2.9	1.0-2.0	.10	.37	5	8	0
	10-35	35-50	1.30-1.40	0.06-0.2	0.04-0.07	6.0-8.9	0.5-2.0	.05	.17			
	35-55	20-35	1.40-1.50	0.2-2.0	0.08-0.13	3.0-5.9	0.0-0.5	.10	.43			
	55-70	20-35	1.40-1.50	0.2-2.0	0.08-0.13	3.0-5.9	0.0-0.5	.10	.43			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
78: Gaciba-----	0-4	12-18	1.20-1.35	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.24	.37	1	6	48
	4-15	16-24	1.50-1.60	0.6-2.0	0.09-0.11	0.0-2.9	0.5-2.0	.15	.37			
	15-19	---	---	---	---	---	---	---	---			
Dacont-----	0-3	15-20	1.35-1.45	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.37	5	6	48
	3-28	20-32	1.35-1.45	0.6-2.0	0.08-0.11	3.0-5.9	0.5-2.0	.15	.37			
	28-41	16-22	1.35-1.45	0.6-2.0	0.07-0.08	0.0-2.9	0.0-0.5	.10	.32			
	41-60	15-22	1.40-1.50	0.6-2.0	0.02-0.05	0.0-2.9	0.0-0.5	.10	.32			
79: Gany-----	0-6	12-20	1.20-1.30	0.6-2.0	0.11-0.14	0.0-2.9	2.0-4.0	.15	.32	2	6	48
	6-21	14-22	1.30-1.40	0.6-2.0	0.08-0.10	0.0-2.9	0.5-2.0	.15	.32			
	21-60	10-16	1.30-1.40	0.6-6.0	0.05-0.08	0.0-2.9	0.0-0.5	.05	.37			
80: Geemore-----	0-3	12-20	1.40-1.50	0.6-2.0	0.14-0.16	0.0-2.9	2.0-5.0	.24	.43	5	6	48
	3-39	27-37	1.40-1.55	0.2-0.6	0.06-0.08	3.0-5.9	0.5-3.0	.10	.32			
	39-45	27-35	1.40-1.55	0.2-0.6	0.06-0.08	3.0-5.9	0.0-0.5	.10	.32			
	45-60	20-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.0-0.5	.10	.32			
81: Germer-----	0-3	20-26	1.25-1.35	0.6-2.0	0.09-0.11	3.0-5.9	0.5-1.0	.20	.37	5	8	0
	3-9	35-39	1.30-1.40	0.2-0.6	0.12-0.16	6.0-8.9	0.0-0.5	.28	.37			
	9-21	18-26	1.30-1.40	0.6-2.0	0.06-0.09	3.0-5.9	0.0-0.5	.20	.37			
	21-60	4-12	1.25-1.35	2.0-6.0	0.04-0.05	0.0-2.9	0.0-0.5	.05	.32			
Dawtonia-----	0-3	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	3-10	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	10-60	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
82: Goldaho-----	0-6	16-22	1.50-1.55	0.6-2.0	0.11-0.13	0.0-2.9	1.0-2.0	.20	.37	2	6	48
	6-17	40-60	1.30-1.50	0.00-0.06	0.10-0.16	6.0-8.9	0.5-1.0	.32	.37			
	17-37	40-55	1.30-1.50	0.06-0.2	0.10-0.12	6.0-8.9	0.0-0.5	.20	.37			
	37-61	35-55	1.30-1.50	0.06-0.6	0.10-0.17	6.0-8.9	0.0-0.5	.37	.43			
Zer-----	0-2	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	2-5	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	5-14	9-18	1.45-1.60	2.0-6.0	0.08-0.13	0.0-2.9	0.5-1.0	.15	.37			
	14-26	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
	26-60	2-8	1.55-1.65	6.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
83: Goldhill-----	0-3	20-25	1.20-1.30	0.6-2.0	0.14-0.17	3.0-5.9	2.0-3.0	.20	.24	5	6	48
	3-7	27-32	1.30-1.40	0.2-0.6	0.17-0.20	3.0-5.9	1.0-2.0	.32	.37			
	7-40	35-60	1.30-1.40	0.06-0.2	0.10-0.16	6.0-8.9	0.0-1.0	.15	.28			
	40-60	27-32	1.40-1.50	0.2-0.6	0.10-0.13	3.0-5.9	0.0-1.0	.10	.32			
Zeebar-----	0-3	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	3-21	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	21-60	25-30	1.50-1.65	0.2-0.6	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
84: Goosebury-----	0-2	15-22	1.20-1.40	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.10	.37	4	7	38
	2-11	12-22	1.25-1.50	0.6-2.0	0.09-0.11	0.0-2.9	0.0-0.1	.10	.24			
	11-41	11-18	1.30-1.40	2.0-6.0	0.05-0.07	0.0-2.9	0.0-0.5	.05	.17			
	41-60	5-12	1.30-1.50	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.15			
85: Goosebury-----	0-3	15-22	1.20-1.40	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	3-22	12-22	1.25-1.50	0.6-2.0	0.09-0.11	0.0-2.9	0.0-0.1	.10	.24			
	22-60	11-18	1.30-1.40	2.0-6.0	0.05-0.07	0.0-2.9	0.0-0.5	.05	.17			
86: Goosebury-----	0-11	12-20	1.20-1.40	0.6-2.0	0.10-0.13	0.0-2.9	1.0-2.0	.24	.37	5	6	48
	11-22	12-22	1.25-1.50	0.6-2.0	0.09-0.11	0.0-2.9	0.0-0.1	.10	.24			
	22-60	11-18	1.30-1.40	2.0-6.0	0.05-0.07	0.0-2.9	0.0-0.5	.05	.17			
Windcoat-----	0-5	12-18	1.20-1.35	0.6-2.0	0.13-0.17	0.0-2.9	0.5-2.0	.17	.32	1	5	56
	5-15	12-20	1.20-1.40	0.6-2.0	0.07-0.14	0.0-2.9	0.5-1.0	.17	.32			
	15-18	---	---	---	---	---	---	---	---			
	18-60	3-8	1.45-1.60	6.0-20.0	0.02-0.06	0.0-2.9	0.0-0.5	.05	.28			
87: Gradco-----	0-2	12-18	1.25-1.35	2.0-6.0	0.09-0.12	0.0-2.9	1.0-2.0	.20	.32	3	4	86
	2-7	12-18	1.25-1.35	0.6-2.0	0.05-0.09	0.0-2.9	1.0-2.0	.15	.37			
	7-33	12-18	1.25-1.35	0.6-2.0	0.05-0.09	0.0-2.9	0.5-1.0	.05	.32			
	33-37	---	---	---	---	---	---	---	---			
Farvant-----	0-3	12-20	1.25-1.35	2.0-6.0	0.07-0.11	0.0-2.9	0.0-0.5	.24	.32	2	4	86
	3-8	12-20	1.30-1.40	2.0-6.0	0.07-0.11	0.0-2.9	0.0-0.5	.10	.24			
	8-14	12-20	1.10-1.25	2.0-6.0	0.05-0.08	0.0-2.9	0.0-0.5	.05	.32			
	14-18	---	---	---	---	---	---	---	---			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
88: Gradco-----	0-2	12-18	1.25-1.35	2.0-6.0	0.09-0.12	0.0-2.9	1.0-2.0	.20	.32	3	4	86
	2-7	12-18	1.25-1.35	0.6-2.0	0.05-0.09	0.0-2.9	1.0-2.0	.15	.37			
	7-33	12-18	1.25-1.35	0.6-2.0	0.05-0.09	0.0-2.9	0.5-1.0	.05	.32			
	33-37	---	---	---	---	---	---	---	---			
Farvant-----	0-3	12-20	1.25-1.35	2.0-6.0	0.07-0.11	0.0-2.9	0.0-0.5	.24	.32	2	4	86
	3-8	12-20	1.30-1.40	2.0-6.0	0.07-0.11	0.0-2.9	0.0-0.5	.10	.24			
	8-14	12-20	1.10-1.25	2.0-6.0	0.05-0.08	0.0-2.9	0.0-0.5	.05	.32			
	14-18	---	---	---	---	---	---	---	---			
89: Hagenbarth-----	0-11	10-20	1.35-1.55	0.2-0.6	0.16-0.21	0.0-2.9	3.0-5.0	.32	.32	5	5	56
	11-22	20-27	1.45-1.55	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.49	.49			
	22-60	21-30	1.35-1.60	0.6-2.0	0.07-0.11	3.0-5.9	0.5-1.0	.20	.32			
Brabas-----	0-3	19-26	1.10-1.25	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.10	.32	5	8	0
	3-8	27-36	1.15-1.25	0.2-0.6	0.12-0.16	3.0-5.9	0.5-1.0	.28	.37			
	8-17	40-52	1.20-1.30	0.06-0.2	0.16-0.18	6.0-8.9	0.0-0.5	.37	.43			
	17-30	10-18	1.20-1.35	0.6-20.0	0.03-0.08	0.0-2.9	0.0-0.5	.05	.32			
	30-60	40-50	1.30-1.40	0.06-0.2	0.12-0.14	6.0-8.9	0.0-0.5	.28	.37			
90: Heathcoat-----	0-2	15-26	1.20-1.30	0.6-2.0	0.12-0.16	3.0-5.9	3.0-5.0	.17	.32	5	7	38
	2-10	22-40	1.25-1.45	0.2-2.0	0.13-0.20	3.0-5.9	2.0-3.0	.32	.43			
	10-47	36-50	1.25-1.45	0.06-0.2	0.12-0.20	6.0-8.9	0.5-2.0	.32	.43			
	47-60	27-50	1.35-1.45	0.06-0.6	0.06-0.10	3.0-5.9	0.0-0.5	.15	.37			
91: Heathcoat-----	0-2	15-26	1.20-1.30	0.6-2.0	0.12-0.16	3.0-5.9	3.0-5.0	.17	.32	5	7	38
	2-10	22-40	1.25-1.45	0.2-2.0	0.13-0.20	3.0-5.9	2.0-3.0	.32	.43			
	10-47	36-50	1.25-1.45	0.06-0.2	0.12-0.20	6.0-8.9	0.5-2.0	.32	.43			
	47-60	27-50	1.35-1.45	0.06-0.6	0.06-0.10	3.0-5.9	0.0-0.5	.15	.37			
Goldhill-----	0-6	18-26	1.40-1.50	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.32	5	7	38
	6-11	27-40	1.45-1.55	0.2-0.6	0.07-0.10	3.0-5.9	1.0-2.0	.15	.37			
	11-40	40-55	1.55-1.65	0.06-0.2	0.10-0.17	6.0-8.9	0.0-1.0	.37	.37			
	40-60	20-30	1.45-1.55	0.2-2.0	0.14-0.18	3.0-5.9	0.0-1.0	.37	.37			
92: Heathcoat-----	0-6	15-26	1.20-1.30	0.6-2.0	0.14-0.17	3.0-5.9	3.0-5.0	.28	.32	5	6	48
	6-10	22-40	1.25-1.45	0.2-2.0	0.13-0.20	3.0-5.9	2.0-3.0	.32	.43			
	10-23	36-50	1.25-1.45	0.06-0.2	0.12-0.20	6.0-8.9	0.5-2.0	.32	.43			
	23-60	27-50	1.35-1.45	0.06-0.6	0.06-0.10	3.0-5.9	0.0-0.5	.15	.37			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
92: Soen-----	0-6	20-26	1.30-1.45	0.6-2.0	0.19-0.21	3.0-5.9	1.0-2.0	.32	.37	5	6	48
	6-30	35-50	1.40-1.55	0.06-0.2	0.14-0.20	6.0-8.9	0.5-2.0	.24	.28			
	30-60	27-33	1.40-1.55	0.2-0.6	0.13-0.17	3.0-5.9	0.0-0.5	.20	.28			
93: Howcan-----	0-3	12-20	1.25-1.35	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	3-18	20-25	1.25-1.35	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37			
	18-44	20-32	1.30-1.45	0.6-2.0	0.05-0.09	0.0-2.9	0.5-1.0	.15	.43			
	44-64	12-20	1.30-1.45	0.6-2.0	0.05-0.09	0.0-2.9	0.5-1.0	.10	.43			
Hagenbarth-----	0-11	10-20	1.35-1.55	0.2-0.6	0.16-0.21	0.0-2.9	3.0-5.0	.32	.32	5	5	56
	11-22	20-27	1.45-1.55	0.2-0.6	0.19-0.21	3.0-5.9	1.0-3.0	.49	.49			
	22-60	21-30	1.35-1.60	0.6-2.0	0.07-0.11	3.0-5.9	0.5-1.0	.20	.32			
Hutchley-----	0-4	15-25	1.15-1.30	0.6-2.0	0.12-0.16	0.0-2.9	1.0-2.0	.20	.37	1	6	48
	4-16	27-35	1.35-1.50	0.2-0.6	0.09-0.12	3.0-5.9	0.5-2.0	.15	.32			
	16-20	---	---	---	---	---	---	---	---			
94: Hutchley-----	0-1	15-25	1.15-1.30	0.6-2.0	0.12-0.16	0.0-2.9	1.0-2.0	.20	.37	1	6	48
	1-3	20-30	1.35-1.50	0.6-2.0	0.07-0.11	3.0-5.9	1.0-2.0	.15	.37			
	3-13	27-35	1.35-1.50	0.2-0.6	0.09-0.12	3.0-5.9	0.5-2.0	.15	.32			
	13-17	---	---	---	---	---	---	---	---			
Nurkey-----	0-1	12-18	1.30-1.40	0.6-2.0	0.09-0.11	0.0-2.9	2.0-3.0	.15	.37	5	7	38
	1-5	14-22	1.30-1.40	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.15	.37			
	5-54	20-26	1.40-1.55	0.2-0.6	0.07-0.09	0.0-2.9	0.5-1.0	.10	.37			
	54-60	8-16	1.40-1.55	2.0-6.0	0.05-0.07	0.0-2.9	0.5-1.0	.05	.32			
95: Ike-----	0-3	10-25	1.20-1.36	0.6-2.0	0.12-0.14	0.0-2.9	0.5-2.0	.15	.32	1	5	56
	3-12	10-20	1.30-1.50	0.6-2.0	0.07-0.13	0.0-2.9	0.0-1.0	.10	.37			
	12-17	10-20	1.40-1.60	0.6-2.0	0.06-0.13	0.0-2.9	0.0-1.0	.10	.37			
	17-21	---	---	---	---	---	---	---	---			
Rock outcrop-----	---	---	---	---	---	---	---	---	---	---	---	---
Jimbee-----	0-6	12-22	1.30-1.45	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.20	.37	1	5	56
	6-16	12-22	1.30-1.45	0.6-2.0	0.09-0.13	0.0-2.9	0.5-2.0	.15	.32			
	16-20	---	---	---	---	---	---	---	---			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
96:												
Inferno-----	0-7	30-35	1.35-1.50	0.2-0.6	0.15-0.17	3.0-5.9	1.0-2.0	.24	.28	5	7	38
	7-12	30-35	1.35-1.50	0.2-0.6	0.15-0.17	6.0-8.9	0.5-1.0	.24	.28			
	12-36	45-55	1.35-1.60	0.06-0.2	0.11-0.13	6.0-8.9	0.0-0.5	.20	.24			
	36-54	40-55	1.35-1.60	0.06-0.2	0.11-0.13	6.0-8.9	0.0-0.5	.20	.24			
	54-60	40-55	1.35-1.55	0.06-0.2	0.05-0.06	3.0-5.9	0.0-0.5	.15	.24			
Grouseville-----	0-7	20-27	1.30-1.50	0.2-0.6	0.16-0.21	0.0-2.9	2.0-5.0	.32	.37	5	6	48
	7-18	28-34	1.40-1.60	0.06-0.2	0.16-0.21	3.0-5.9	1.0-3.0	.28	.32			
	18-60	35-45	1.40-1.60	0.06-0.2	0.19-0.21	6.0-8.9	0.5-2.0	.28	.37			
97:												
Jimbee-----	0-6	12-22	1.30-1.45	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.20	.37	1	5	56
	6-16	12-22	1.30-1.45	0.6-2.0	0.09-0.13	0.0-2.9	0.5-2.0	.15	.32			
	16-20	---	---	---	---	---	---	---	---			
Rock outcrop-----	---	---	---	---	---	---	---	---	---	---	---	---
Ike-----	0-3	10-25	1.20-1.36	0.6-2.0	0.12-0.14	0.0-2.9	0.5-2.0	.15	.32	1	5	56
	3-12	10-20	1.30-1.50	0.6-2.0	0.07-0.13	0.0-2.9	0.0-1.0	.10	.37			
	12-17	10-20	1.40-1.60	0.6-2.0	0.06-0.13	0.0-2.9	0.0-1.0	.10	.37			
	17-21	---	---	---	---	---	---	---	---			
98:												
Justesen-----	0-4	10-27	1.15-1.25	0.6-2.0	0.13-0.18	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	4-40	27-35	1.20-1.40	0.2-0.6	0.13-0.18	3.0-5.9	0.5-1.0	.37	.37			
	40-60	18-35	1.20-1.30	0.2-2.0	0.12-0.20	0.0-2.9	0.0-0.5	.28	.37			
Drage-----	0-3	18-25	1.20-1.40	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.24	.43	5	7	38
	3-10	18-25	1.20-1.40	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.24	.43			
	10-40	28-32	1.30-1.50	0.2-0.6	0.08-0.12	3.0-5.9	0.5-1.0	.28	.32			
	40-60	10-25	1.40-1.60	0.6-2.0	0.04-0.08	0.0-2.9	0.5-1.0	.10	.32			
99:												
Kadletz-----	0-2	12-19	1.60-1.65	0.6-2.0	0.08-0.11	0.0-2.9	0.5-1.0	.10	.37	5	7	38
	2-5	12-19	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	0.5-1.0	.24	.37			
	5-8	12-19	1.60-1.65	0.6-2.0	0.08-0.11	0.0-2.9	0.0-0.5	.15	.37			
	8-12	1-7	1.55-1.60	6.0-20.0	0.04-0.05	0.0-2.9	0.0-0.5	.05	.20			
	12-60	1-7	1.55-1.60	6.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.02	.15			
100:												
Kehar-----	0-7	18-25	1.25-1.35	0.6-2.0	0.13-0.17	0.0-2.9	1.0-2.0	.20	.37	5	7	38
	7-31	28-50	1.40-1.50	0.06-0.2	0.11-0.19	6.0-8.9	0.5-1.0	.37	.43			
	31-60	32-45	1.35-1.45	0.06-0.6	0.08-0.13	3.0-5.9	0.0-0.5	.15	.43			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
101:												
Kehar-----	0-4	18-26	1.25-1.35	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.17	.37	5	8	0
	4-34	28-50	1.40-1.50	0.06-0.2	0.11-0.19	6.0-8.9	0.5-1.0	.37	.43			
	34-45	20-30	1.30-1.40	0.2-2.0	0.08-0.10	3.0-5.9	0.0-0.5	.10	.32			
	45-60	32-45	1.35-1.45	0.06-0.6	0.08-0.13	3.0-5.9	0.0-0.5	.15	.43			
Kehar, eroded-----	0-16	40-50	1.25-1.35	0.06-0.2	0.10-0.14	6.0-8.9	1.0-2.0	.17	.32	5	5	56
	16-60	28-50	1.40-1.50	0.06-0.2	0.11-0.19	6.0-8.9	0.5-1.0	.37	.43			
102:												
Ketchum-----	0-10	10-16	1.55-1.60	2.0-6.0	0.08-0.11	0.0-2.9	2.0-4.0	.10	.32	5	7	38
	10-36	10-16	1.60-1.65	2.0-6.0	0.06-0.08	0.0-2.9	1.0-2.0	.17	.32			
	36-60	12-18	1.60-1.65	2.0-6.0	0.04-0.06	0.0-2.9	0.5-1.0	.10	.37			
103:												
Ketchum, cold-----	0-2	10-16	1.55-1.60	2.0-6.0	0.11-0.14	0.0-2.9	2.0-4.0	.17	.32	5	6	48
	2-53	10-16	1.60-1.65	2.0-6.0	0.06-0.08	0.0-2.9	0.1-2.0	.17	.32			
	53-60	12-18	1.60-1.65	2.0-6.0	0.04-0.06	0.0-2.9	0.5-1.0	.10	.32			
Ketchum-----	0-3	10-16	1.55-1.60	2.0-6.0	0.11-0.14	0.0-2.9	2.0-4.0	.17	.32	5	6	48
	3-24	10-16	1.60-1.65	2.0-6.0	0.06-0.08	0.0-2.9	1.0-2.0	.17	.32			
	24-60	12-18	1.60-1.65	2.0-6.0	0.04-0.06	0.0-2.9	0.5-1.0	.10	.37			
104:												
Klug-----	0-10	12-20	1.20-1.35	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.15	.32	5	6	48
	10-27	12-20	1.35-1.50	0.6-6.0	0.06-0.11	0.0-2.9	1.0-2.0	.10	.37			
	27-60	12-20	1.40-1.55	0.6-6.0	0.03-0.08	0.0-2.9	0.5-1.0	.05	.43			
105:												
Klug-----	0-4	12-20	1.20-1.35	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.15	.32	5	6	48
	4-20	12-20	1.35-1.50	0.6-6.0	0.06-0.11	0.0-2.9	1.0-2.0	.10	.37			
	20-60	12-20	1.40-1.55	0.6-6.0	0.03-0.08	0.0-2.9	0.5-1.0	.05	.43			
Gaciba-----	0-3	12-18	1.20-1.35	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.24	.37	1	6	48
	3-18	16-24	1.50-1.60	0.6-2.0	0.09-0.11	0.0-2.9	0.5-2.0	.15	.37			
	18-22	---	---	---	---	---	---	---	---			
Dacont-----	0-3	15-20	1.35-1.45	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.37	5	6	48
	3-28	20-32	1.35-1.45	0.6-2.0	0.08-0.11	3.0-5.9	0.5-2.0	.15	.37			
	28-41	16-22	1.35-1.45	0.6-2.0	0.07-0.08	0.0-2.9	0.0-0.5	.10	.32			
	41-60	15-22	1.40-1.50	0.6-2.0	0.02-0.05	0.0-2.9	0.0-0.5	.10	.32			
106:												
Klug-----	0-4	12-20	1.20-1.35	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.15	.32	5	6	48
	4-20	12-20	1.35-1.50	0.6-6.0	0.06-0.11	0.0-2.9	1.0-2.0	.10	.37			
	20-60	12-20	1.40-1.55	0.6-6.0	0.03-0.08	0.0-2.9	0.5-1.0	.05	.43			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
106: Povey-----	0-5	8-18	1.30-1.45	0.6-2.0	0.12-0.14	0.0-2.9	4.0-10	.20	.32	5	6	48
	5-25	10-20	1.30-1.45	0.6-2.0	0.06-0.11	0.0-2.9	2.0-6.0	.15	.32			
	25-60	8-18	1.30-1.45	0.6-2.0	0.06-0.08	0.0-2.9	0.5-2.0	.15	.32			
107: Klug-----	0-4	12-20	1.30-1.40	0.6-2.0	0.08-0.10	0.0-2.9	2.0-3.0	.10	.32	5	7	38
	4-10	12-20	1.35-1.50	0.6-6.0	0.06-0.11	0.0-2.9	1.0-2.0	.10	.37			
	10-60	12-20	1.40-1.55	0.6-6.0	0.03-0.08	0.0-2.9	0.5-1.0	.05	.43			
Povey-----	0-5	8-18	1.30-1.45	0.6-2.0	0.12-0.14	0.0-2.9	4.0-10	.20	.32	5	6	48
	5-25	10-20	1.30-1.45	0.6-2.0	0.06-0.11	0.0-2.9	2.0-6.0	.15	.32			
	25-60	8-18	1.30-1.45	0.6-2.0	0.06-0.08	0.0-2.9	0.5-2.0	.15	.32			
108: Klug-----	0-4	12-20	1.20-1.35	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.15	.32	5	6	48
	4-10	12-20	1.35-1.50	0.6-6.0	0.06-0.11	0.0-2.9	1.0-2.0	.10	.37			
	10-60	12-20	1.40-1.55	0.6-6.0	0.03-0.08	0.0-2.9	0.5-1.0	.05	.43			
Zeebar-----	0-4	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	4-30	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	30-60	25-30	1.50-1.65	0.2-0.6	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
109: Lacrol-----	0-6	18-26	1.35-1.55	0.6-2.0	0.12-0.16	3.0-5.9	2.0-3.0	.24	.43	2	7	38
	6-60	40-60	1.25-1.34	0.00-0.06	0.11-0.19	6.0-8.9	0.5-1.0	.10	.32			
Friedman-----	0-4	16-25	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	5	7	38
	4-19	18-25	1.30-1.40	0.6-2.0	0.08-0.13	0.0-2.9	1.0-3.0	.15	.43			
	19-60	30-40	1.40-1.50	0.06-0.2	0.05-0.10	3.0-5.9	0.5-2.0	.10	.37			
110: Lag-----	0-2	14-22	1.40-1.55	2.0-6.0	0.06-0.08	0.0-2.9	2.0-4.0	.10	.28	5	7	38
	2-44	10-20	1.60-1.65	2.0-6.0	0.03-0.05	0.0-2.9	0.5-2.0	.05	.24			
	44-60	10-20	1.60-1.65	2.0-6.0	0.02-0.05	0.0-2.9	0.0-0.5	.05	.32			
111: Lag-----	0-10	14-22	1.40-1.55	2.0-6.0	0.06-0.08	0.0-2.9	2.0-4.0	.10	.28	5	7	38
	10-35	10-20	1.60-1.65	2.0-6.0	0.03-0.05	0.0-2.9	0.5-2.0	.05	.24			
	35-61	10-20	1.60-1.65	2.0-6.0	0.02-0.05	0.0-2.9	0.0-0.5	.05	.32			
112: Lag-----	0-2	14-22	1.40-1.55	2.0-6.0	0.06-0.08	0.0-2.9	2.0-4.0	.10	.28	5	7	38
	2-44	10-20	1.60-1.65	2.0-6.0	0.03-0.05	0.0-2.9	0.5-2.0	.05	.24			
	44-60	10-20	1.60-1.65	2.0-6.0	0.02-0.05	0.0-2.9	0.0-0.5	.05	.32			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
112: Klug-----	0-4	12-20	1.20-1.35	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.15	.32	5	6	48
	4-20	12-20	1.35-1.50	0.6-6.0	0.06-0.11	0.0-2.9	1.0-2.0	.10	.37			
	20-60	12-20	1.40-1.55	0.6-6.0	0.03-0.08	0.0-2.9	0.5-1.0	.05	.43			
113: Langer-----	0-9	8-15	1.30-1.45	2.0-6.0	0.09-0.12	0.0-2.9	2.0-3.0	.28	.32	2	4	86
	9-13	8-15	1.35-1.50	2.0-6.0	0.05-0.08	0.0-2.9	0.5-1.0	.10	.32			
	13-60	1-5	1.40-1.55	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.32			
114: Leadore-----	0-3	14-19	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	2	6	48
	3-16	16-22	1.35-1.45	0.6-2.0	0.07-0.14	0.0-2.9	0.0-0.5	.15	.32			
	16-60	2-10	1.50-1.60	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.17			
115: Leatherman-----	0-11	12-20	1.60-1.65	0.6-2.0	0.09-0.14	0.0-2.9	1.0-2.0	.15	.28	1	6	48
	11-16	---	---	---	---	---	---	---	---			
	16-60	3-8	1.55-1.60	6.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.10			
Arbus-----	0-3	12-20	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	2	5	56
	3-12	12-20	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.15	.37			
	12-60	3-8	1.60-1.65	6.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.15			
116: Leatherman-----	0-11	12-20	1.60-1.65	0.6-2.0	0.09-0.14	0.0-2.9	1.0-2.0	.15	.28	1	6	48
	11-16	---	---	---	---	---	---	---	---			
	16-60	3-8	1.55-1.60	6.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.10			
Bluedome-----	0-3	8-14	1.40-1.50	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.28	.37	3	5	56
	3-22	10-16	1.50-1.60	0.6-2.0	0.10-0.19	0.0-2.9	0.0-0.5	.32	.37			
	22-30	---	---	---	---	---	---	---	---			
	30-60	5-12	1.60-1.70	20.0-20.0	0.01-0.02	0.0-2.9	0.0-0.5	.10	.20			
117: Lemco-----	0-11	18-25	1.30-1.35	0.6-2.0	0.14-0.17	0.0-2.9	1.0-3.0	.28	.32	3	6	48
	11-36	40-50	1.60-1.65	0.06-0.2	0.07-0.11	6.0-8.9	1.0-2.0	.15	.37			
	36-48	30-38	1.45-1.55	0.2-0.6	0.13-0.17	3.0-5.9	0.5-1.0	.20	.37			
	48-61	15-20	1.55-1.65	0.6-2.0	0.11-0.14	0.0-2.9	0.5-1.0	.20	.37			
Friedman-----	0-2	16-25	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	5	7	38
	2-18	18-25	1.30-1.40	0.6-2.0	0.08-0.13	0.0-2.9	1.0-3.0	.15	.43			
	18-37	30-40	1.40-1.50	0.06-0.2	0.05-0.10	3.0-5.9	0.5-2.0	.10	.37			
	37-60	40-50	1.40-1.50	0.06-0.2	0.04-0.08	3.0-5.9	0.5-2.0	.05	.24			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
118:												
Lemhi-----	0-13	18-26	1.25-1.40	0.6-2.0	0.14-0.16	3.0-5.9	3.0-4.0	.20	.20	3	8	0
	13-21	18-26	1.25-1.40	0.6-2.0	0.16-0.21	3.0-5.9	2.0-3.0	.20	.20			
	21-24	5-10	1.50-1.70	6.0-20.0	0.05-0.08	0.0-2.9	0.1-2.0	.10	.17			
	24-60	5-10	1.50-1.70	20.0-20.0	0.02-0.04	0.0-2.9	0.5-1.0	.10	.15			
Copperbasin-----	0-6	10-15	1.30-1.45	2.0-6.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	5	6	48
	6-14	8-12	1.25-1.40	6.0-20.0	0.04-0.05	0.0-2.9	0.5-2.0	.05	.17			
	14-27	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.02	.20			
	27-60	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
Lilylake-----	0-10	0-0	0.80-0.95	6.0-20.0	0.22-0.30	6.0-8.9	20-65	.02	.02	1	8	0
	10-60	0-5	1.55-1.65	20.0-20.0	0.02-0.03	0.0-2.9	0.0-1.0	.02	.17			
119:												
Lemroi-----	0-8	8-15	1.10-1.20	0.6-2.0	0.19-0.21	0.0-2.9	4.0-6.0	.28	.32	3	8	0
	8-15	5-18	1.15-1.30	0.6-2.0	0.16-0.19	0.0-2.9	2.0-3.0	.32	.37			
	15-23	5-18	1.25-1.40	2.0-6.0	0.04-0.05	0.0-2.9	1.0-2.0	.10	.43			
	23-60	2-10	1.30-1.45	20.0-20.0	0.02-0.03	0.0-2.9	0.0-1.0	.10	.43			
Leecreek-----	0-3	10-18	1.10-1.20	0.6-2.0	0.17-0.20	0.0-2.9	4.0-6.0	.43	.49	2	8	0
	3-18	5-27	1.15-1.30	0.6-2.0	0.12-0.14	0.0-2.9	1.0-2.0	.28	.49			
	18-60	5-10	1.25-1.40	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.24			
120:												
Lemroi-----	0-8	8-15	1.10-1.20	0.6-2.0	0.19-0.21	0.0-2.9	4.0-6.0	.28	.32	3	8	0
	8-15	5-18	1.15-1.30	0.6-2.0	0.16-0.19	0.0-2.9	2.0-3.0	.32	.37			
	15-23	5-18	1.25-1.40	2.0-6.0	0.04-0.05	0.0-2.9	1.0-2.0	.10	.43			
	23-60	2-10	1.30-1.45	20.0-20.0	0.02-0.03	0.0-2.9	0.0-1.0	.10	.43			
Leecreek-----	0-3	10-18	1.10-1.20	0.6-2.0	0.17-0.20	0.0-2.9	4.0-6.0	.43	.49	2	8	0
	3-18	5-27	1.15-1.30	0.6-2.0	0.12-0.14	0.0-2.9	1.0-2.0	.28	.49			
	18-60	5-10	1.25-1.40	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.24			
Grandjean-----	0-6	0-0	0.30-0.60	0.6-2.0	0.20-0.28	6.0-8.9	40-80	.02	.02	2	8	0
	6-27	0-0	0.30-0.60	0.6-2.0	0.22-0.30	6.0-8.9	40-80	.02	.02			
	27-60	0-5	1.45-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.05	.20			
121:												
Lesbut-----	0-4	12-22	1.10-1.20	0.6-2.0	0.11-0.15	0.0-2.9	1.0-2.0	.32	.37	2	6	48
	4-18	8-18	1.15-1.30	0.6-2.0	0.09-0.15	0.0-2.9	1.0-2.0	.28	.37			
	18-60	0-5	1.20-1.40	20.0-20.0	0.01-0.04	0.0-2.9	0.0-0.5	.02	.17			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
122:												
Lilylake-----	0-12	0-0	0.80-0.95	6.0-20.0	0.22-0.30	6.0-8.9	20-65	.02	.02	1	8	0
	12-15	0-5	1.55-1.65	20.0-20.0	0.04-0.06	0.0-2.9	2.0-3.0	.15	.20			
	15-60	0-5	1.55-1.65	20.0-20.0	0.02-0.03	0.0-2.9	0.0-1.0	.02	.17			
Grandjean-----	0-6	0-0	0.30-0.60	0.6-2.0	0.20-0.28	6.0-8.9	40-80	.02	.02	2	8	0
	6-27	0-0	0.30-0.60	0.6-2.0	0.22-0.30	6.0-8.9	40-80	.02	.02			
	27-60	0-5	1.45-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.05	.20			
123:												
Mahaffey-----	0-12	18-26	1.10-1.20	0.6-2.0	0.16-0.20	3.0-5.9	2.0-3.0	.37	.37	3	8	0
	12-23	12-18	1.25-1.35	0.6-2.0	0.12-0.16	0.0-2.9	1.0-2.0	.43	.43			
	23-34	5-15	1.30-1.40	2.0-6.0	0.05-0.07	0.0-2.9	0.5-1.0	.15	.43			
	34-61	5-10	1.50-1.70	6.0-20.0	0.02-0.04	0.0-2.9	0.5-5.0	.02	.15			
Copperbasin-----	0-7	10-15	1.30-1.45	2.0-6.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	5	4	86
	7-14	8-12	1.25-1.40	6.0-20.0	0.04-0.05	0.0-2.9	0.5-2.0	.05	.17			
	14-60	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
Wiskisprings-----	0-8	16-25	1.20-1.35	0.6-2.0	0.17-0.19	0.0-2.9	2.0-3.0	.49	.55	4	8	0
	8-49	18-25	1.20-1.35	0.6-2.0	0.17-0.19	0.0-2.9	1.0-2.0	.43	.43			
	49-54	16-25	1.25-1.40	0.6-2.0	0.13-0.14	0.0-2.9	0.5-1.0	.24	.43			
	54-60	2-10	1.40-1.60	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
124:												
Meegernot-----	0-16	15-20	1.25-1.35	0.6-2.0	0.11-0.13	0.0-2.9	3.0-4.0	.15	.28	4	6	48
	16-41	20-26	1.30-1.40	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.10	.43			
	41-58	28-38	1.30-1.40	0.2-0.6	0.06-0.08	3.0-5.9	0.5-1.0	.05	.28			
	58-66	5-10	1.20-1.30	6.0-20.0	0.03-0.04	0.0-2.9	0.5-1.0	.05	.20			
125:												
Meegero-----	0-10	12-18	1.20-1.40	0.6-2.0	0.14-0.16	0.0-2.9	2.0-4.0	.17	.20	2	5	56
	10-19	14-22	1.25-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-4.0	.17	.32			
	19-29	16-26	1.35-1.50	0.6-2.0	0.08-0.09	0.0-2.9	0.5-2.0	.10	.37			
	29-60	12-24	1.40-1.55	0.6-6.0	0.04-0.08	0.0-2.9	0.0-0.5	.05	.37			
Zeale-----	0-8	15-18	1.20-1.40	0.6-2.0	0.09-0.19	0.0-2.9	2.0-4.0	.20	.37	2	5	56
	8-60	15-25	1.40-1.55	0.6-2.0	0.05-0.12	0.0-2.9	0.5-2.0	.15	.37			
126:												
Millhi-----	0-4	14-25	1.10-1.25	0.6-2.0	0.18-0.21	3.0-5.9	1.0-2.0	.37	.37	1	5	56
	4-9	14-25	1.25-1.35	0.6-2.0	0.17-0.20	3.0-5.9	1.0-2.0	.37	.43			
	9-60	45-65	1.00-1.20	0.00-0.06	0.12-0.20	6.0-8.9	0.0-0.5	.32	.32			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
127: Millhi-----	0-2	14-25	1.40-1.55	0.6-2.0	0.14-0.19	3.0-5.9	1.0-2.0	.37	.43	1	6	48
	2-4	14-25	1.25-1.35	0.6-2.0	0.17-0.20	3.0-5.9	1.0-2.0	.37	.43			
	4-48	35-60	1.20-1.35	0.00-0.06	0.10-0.20	6.0-8.9	0.5-1.0	.37	.43			
	48-60	45-65	1.00-1.20	0.00-0.06	0.12-0.20	6.0-8.9	0.0-0.5	.32	.32			
128: Millhi-----	0-2	14-25	1.40-1.55	0.6-2.0	0.14-0.19	3.0-5.9	1.0-2.0	.37	.43	1	6	48
	2-4	14-25	1.25-1.35	0.6-2.0	0.17-0.20	3.0-5.9	1.0-2.0	.37	.43			
	4-48	35-60	1.20-1.35	0.00-0.06	0.10-0.20	6.0-8.9	0.5-1.0	.37	.43			
	48-60	45-65	1.00-1.20	0.00-0.06	0.12-0.20	6.0-8.9	0.0-0.5	.32	.32			
Millhi, eroded-----	0-1	40-60	1.20-1.35	0.00-0.06	0.11-0.17	6.0-8.9	1.0-2.0	.37	.43	1	5	56
	1-60	35-60	1.20-1.35	0.00-0.06	0.10-0.20	6.0-8.9	0.5-1.0	.37	.43			
129: Millhi-----	0-2	14-25	1.40-1.55	0.6-2.0	0.14-0.19	3.0-5.9	1.0-2.0	.37	.43	1	6	48
	2-4	14-25	1.25-1.35	0.6-2.0	0.17-0.20	3.0-5.9	1.0-2.0	.37	.43			
	4-48	35-60	1.20-1.35	0.00-0.06	0.10-0.20	6.0-8.9	0.5-1.0	.37	.43			
	48-60	45-65	1.00-1.20	0.00-0.06	0.12-0.20	6.0-8.9	0.0-0.5	.32	.32			
Badland-----	---	---	---	---	---	---	---	---	---	---	---	---
130: Millhi-----	0-2	14-25	1.40-1.55	0.6-2.0	0.14-0.19	3.0-5.9	1.0-2.0	.37	.43	1	6	48
	2-4	14-25	1.25-1.35	0.6-2.0	0.17-0.20	3.0-5.9	1.0-2.0	.37	.43			
	4-48	35-60	1.20-1.35	0.00-0.06	0.10-0.20	6.0-8.9	0.5-1.0	.37	.43			
	48-60	45-65	1.00-1.20	0.00-0.06	0.12-0.20	6.0-8.9	0.0-0.5	.32	.32			
Lacrol-----	0-2	18-26	1.35-1.55	0.6-2.0	0.18-0.20	3.0-5.9	2.0-3.0	.32	.37	2	6	48
	2-7	24-30	1.45-1.60	0.2-0.6	0.13-0.18	3.0-5.9	1.0-2.0	.17	.20			
	7-60	40-60	1.25-1.34	0.00-0.06	0.11-0.19	6.0-8.9	0.5-1.0	.10	.32			
131: Misfire-----	0-3	10-18	1.10-1.20	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.43	.49	5	5	56
	3-12	18-24	1.15-1.30	0.6-2.0	0.15-0.18	0.0-2.9	0.5-1.0	.28	.49			
	12-60	8-15	1.25-1.40	2.0-6.0	0.06-0.11	0.0-2.9	0.0-0.5	.15	.28			
Pattee-----	0-4	10-18	1.00-1.10	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.43	.43	5	5	56
	4-25	10-18	1.00-1.10	0.6-2.0	0.18-0.20	0.0-2.9	0.5-1.0	.37	.49			
	25-49	10-18	1.00-1.10	0.6-2.0	0.15-0.20	0.0-2.9	0.5-1.0	.37	.49			
	49-60	8-15	1.00-1.10	0.6-2.0	0.11-0.14	0.0-2.9	0.0-0.5	.24	.43			
Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	4-11	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	11-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
132:												
Mitring-----	0-3	20-26	1.40-1.50	0.6-2.0	0.06-0.11	3.0-5.9	0.5-1.0	.15	.37	3	7	38
	3-10	20-26	1.40-1.50	0.6-2.0	0.05-0.10	3.0-5.9	0.0-0.5	.10	.37			
	10-30	10-15	1.45-1.55	2.0-6.0	0.03-0.06	0.0-2.9	0.0-0.5	.05	.32			
	30-40	---	---	---	---	---	---	---	---			
Holinrock-----	0-2	12-20	1.25-1.35	0.6-2.0	0.11-0.13	0.0-2.9	1.0-2.0	.24	.37	2	6	48
	2-6	12-20	1.30-1.40	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.15	.43			
	6-24	18-26	1.30-1.40	0.6-2.0	0.08-0.11	0.0-2.9	0.5-1.0	.15	.43			
	24-29	18-26	1.30-1.40	0.6-2.0	0.07-0.08	0.0-2.9	0.5-1.0	.05	.32			
	29-33	---	---	---	---	---	---	---	---			
133:												
Mogg-----	0-5	15-25	1.50-1.60	0.6-2.0	0.06-0.09	0.0-2.9	1.0-3.0	.10	.32	1	7	38
	5-14	15-25	1.55-1.65	0.6-2.0	0.04-0.07	0.0-2.9	0.5-1.0	.05	.24			
	14-18	---	---	---	---	---	---	---	---			
Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
134:												
Mooretown-----	0-4	12-20	1.10-1.20	0.6-2.0	0.15-0.18	0.0-2.9	2.0-4.0	.37	.43	4	5	56
	4-43	10-18	1.15-1.30	0.6-2.0	0.13-0.16	0.0-2.9	1.0-3.0	.32	.43			
	43-60	5-15	1.20-1.40	6.0-20.0	0.12-0.15	0.0-2.9	0.5-1.0	.10	.37			
Blackfoot-----	0-19	16-22	1.20-1.40	0.6-2.0	0.16-0.18	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	19-36	18-26	1.30-1.50	0.6-2.0	0.16-0.18	0.0-2.9	0.5-2.0	.37	.37			
	36-60	16-40	1.30-1.50	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.32	.32			
Borah-----	0-4	8-15	1.15-1.25	0.6-2.0	0.16-0.20	0.0-2.9	1.0-3.0	.32	.32	2	8	0
	4-12	8-15	1.20-1.40	0.6-6.0	0.09-0.12	0.0-2.9	1.0-2.0	.17	.37			
	12-60	1-6	1.30-1.40	20.0-20.0	0.01-0.03	0.0-2.9	0.5-1.0	.10	.15			
135:												
Mooretown-----	0-3	12-20	1.10-1.20	0.6-2.0	0.15-0.18	0.0-2.9	2.0-4.0	.37	.43	3	5	56
	3-35	12-18	1.15-1.30	0.6-2.0	0.12-0.15	0.0-2.9	1.0-3.0	.32	.43			
	35-60	5-10	1.20-1.40	6.0-20.0	0.04-0.08	0.0-2.9	0.5-1.0	.10	.37			
Borco-----	0-2	8-15	1.15-1.30	0.6-2.0	0.05-0.10	0.0-2.9	1.0-3.0	.15	.37	2	7	38
	2-10	8-15	1.20-1.40	0.6-2.0	0.05-0.10	0.0-2.9	1.0-2.0	.15	.37			
	10-60	1-6	1.20-1.40	20.0-20.0	0.01-0.03	0.0-2.9	0.0-1.0	.05	.20			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
136: Morphey-----	0-11	18-24	1.10-1.20	0.6-2.0	0.17-0.20	0.0-2.9	2.0-3.0	.43	.43	3	8	0
	11-19	30-40	1.15-1.30	0.2-0.6	0.17-0.20	6.0-8.9	1.0-2.0	.37	.37			
	19-60	35-50	1.20-1.40	0.00-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.37	.43			
137: Morphey-----	0-11	18-24	1.10-1.20	0.6-2.0	0.17-0.20	0.0-2.9	2.0-3.0	.43	.43	3	8	0
	11-19	30-40	1.15-1.30	0.2-0.6	0.17-0.20	6.0-8.9	1.0-2.0	.37	.37			
	19-60	35-50	1.20-1.40	0.00-0.06	0.14-0.17	6.0-8.9	0.5-1.0	.37	.43			
138: Mountainboy-----	0-6	10-15	1.35-1.45	0.6-2.0	0.14-0.16	0.0-2.9	4.0-6.0	.24	.43	2	5	86
	6-11	10-15	1.35-1.45	0.6-2.0	0.14-0.16	0.0-2.9	4.0-6.0	.24	.43			
	11-16	12-20	1.40-1.45	0.6-2.0	0.11-0.15	0.0-2.9	3.0-4.0	.20	.49			
	16-19	3-5	1.45-1.55	2.0-6.0	0.02-0.04	0.0-2.9	1.0-2.0	.10	.28			
	19-20	---	---	---	---	---	---	---	---			
	20-60	5-10	1.55-1.65	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.05	.15			
139: Mountainboy-----	0-5	10-15	1.35-1.45	0.6-2.0	0.14-0.16	0.0-2.9	4.0-6.0	.24	.43	2	5	86
	5-18	12-20	1.40-1.45	0.6-2.0	0.11-0.15	0.0-2.9	3.0-4.0	.20	.49			
	18-19	---	---	---	---	---	---	---	---			
	19-60	5-10	1.55-1.65	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.05	.15			
140: Nicholia-----	0-2	12-16	1.15-1.30	0.6-2.0	0.13-0.15	0.0-2.9	1.0-2.0	.32	.37	1	5	56
	2-14	14-18	1.25-1.40	0.6-2.0	0.13-0.15	0.0-2.9	0.5-1.0	.32	.37			
	14-15	---	---	---	---	---	---	---	---			
	15-60	0-5	1.40-1.55	20.0-20.0	0.01-0.03	0.0-2.9	0.0-0.5	.10	.15			
Goosebury-----	0-2	15-22	1.20-1.40	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.10	.37	4	7	38
	2-11	12-22	1.25-1.50	0.6-2.0	0.09-0.11	0.0-2.9	0.0-0.1	.10	.24			
	11-41	11-18	1.30-1.40	2.0-6.0	0.05-0.07	0.0-2.9	0.0-0.5	.05	.17			
	41-60	5-12	1.30-1.50	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.15			
141: Nielsen-----	0-3	15-20	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.20	.37	1	6	48
	3-15	20-35	1.60-1.70	0.2-0.6	0.08-0.13	3.0-5.9	1.0-2.0	.10	.43			
	15-25	---	---	---	---	---	---	---	---			
Gaciba-----	0-3	12-18	1.20-1.35	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.24	.37	1	6	48
	3-18	16-24	1.50-1.60	0.6-2.0	0.09-0.11	0.0-2.9	0.5-2.0	.15	.37			
	18-22	---	---	---	---	---	---	---	---			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
142:												
Nitchly-----	0-2	18-25	1.25-1.35	0.6-2.0	0.11-0.13	0.0-2.9	1.0-2.0	.20	.37	2	5	56
	2-14	18-25	1.30-1.40	0.6-2.0	0.08-0.11	0.0-2.9	0.5-1.0	.17	.37			
	14-60	27-35	1.40-1.50	0.2-0.6	0.07-0.13	3.0-5.9	0.0-0.5	.15	.32			
Skibo-----	0-4	10-20	1.30-1.40	0.6-2.0	0.08-0.11	0.0-2.9	2.0-3.0	.10	.37	2	7	38
	4-9	13-22	1.45-1.55	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.10	.37			
	9-19	13-22	1.45-1.55	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.10	.37			
	19-60	13-22	1.45-1.55	0.6-6.0	0.05-0.09	0.0-2.9	0.5-1.0	.05	.37			
Rock outcrop-----	---	---	---	---	---	---	---	---	---	---	---	---
143:												
Nurkey-----	0-10	12-18	1.30-1.40	0.6-2.0	0.15-0.20	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	10-51	24-30	1.35-1.50	0.2-2.0	0.09-0.12	0.0-2.9	1.0-2.0	.15	.37			
	51-60	8-16	1.40-1.55	2.0-6.0	0.05-0.07	0.0-2.9	0.5-1.0	.05	.32			
Zeebar-----	0-8	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	8-22	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	22-35	20-30	1.50-1.60	0.2-0.6	0.07-0.12	0.0-2.9	0.5-1.0	.15	.32			
	35-49	25-30	1.50-1.65	0.2-0.6	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
	49-60	15-25	1.50-1.65	0.6-2.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
Hutchley-----	0-5	15-25	1.15-1.30	0.6-2.0	0.12-0.16	0.0-2.9	1.0-2.0	.20	.37	1	6	48
	5-10	20-30	1.35-1.50	0.6-2.0	0.07-0.11	3.0-5.9	1.0-2.0	.15	.37			
	10-18	27-35	1.35-1.50	0.2-0.6	0.09-0.12	3.0-5.9	0.5-2.0	.15	.32			
	18-28	---	---	---	---	---	---	---	---			
144:												
Nurkey-----	0-4	16-25	1.35-1.45	0.6-2.0	0.15-0.17	0.0-2.9	1.0-2.0	.17	.37	5	6	48
	4-8	19-28	1.35-1.45	0.2-0.6	0.13-0.16	0.0-2.9	1.0-2.0	.15	.37			
	8-14	24-30	1.35-1.45	0.2-0.6	0.12-0.14	3.0-5.9	1.0-2.0	.15	.37			
	14-32	12-27	1.35-1.45	0.2-0.6	0.11-0.14	0.0-2.9	0.5-1.0	.15	.37			
	32-60	5-20	1.35-1.45	0.6-2.0	0.09-0.13	0.0-2.9	0.5-1.0	.10	.32			
Dacont-----	0-8	15-20	1.35-1.45	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.37	5	6	48
	8-15	20-32	1.35-1.45	0.6-2.0	0.08-0.11	3.0-5.9	0.5-2.0	.15	.37			
	15-28	16-22	1.35-1.45	0.6-2.0	0.07-0.08	0.0-2.9	0.0-0.5	.10	.32			
	28-60	15-22	1.40-1.50	0.6-2.0	0.02-0.05	0.0-2.9	0.0-0.5	.10	.32			
145:												
Nurkey-----	0-2	12-18	1.30-1.40	0.6-2.0	0.09-0.11	0.0-2.9	2.0-3.0	.15	.37	5	7	38
	2-6	14-22	1.30-1.40	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.15	.37			
	6-19	24-30	1.35-1.50	0.2-2.0	0.09-0.12	0.0-2.9	1.0-2.0	.15	.37			
	19-28	20-26	1.40-1.55	0.6-2.0	0.07-0.09	0.0-2.9	0.5-1.0	.10	.37			
	28-60	8-16	1.40-1.55	2.0-6.0	0.05-0.07	0.0-2.9	0.5-1.0	.05	.32			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
145: Dacont-----	0-4	15-20	1.35-1.45	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	4-10	20-32	1.35-1.45	0.6-2.0	0.08-0.11	3.0-5.9	0.5-2.0	.15	.37			
	10-18	16-22	1.35-1.45	0.6-2.0	0.07-0.08	0.0-2.9	0.0-0.5	.10	.32			
	18-60	15-22	1.40-1.50	0.6-2.0	0.02-0.05	0.0-2.9	0.0-0.5	.10	.32			
146: Nurkey-----	0-1	12-18	1.30-1.40	0.6-2.0	0.09-0.11	0.0-2.9	2.0-3.0	.15	.37	5	7	38
	1-5	14-22	1.30-1.40	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.15	.37			
	5-54	20-26	1.40-1.55	0.2-0.6	0.07-0.09	0.0-2.9	0.5-1.0	.10	.37			
	54-60	8-16	1.40-1.55	2.0-6.0	0.05-0.07	0.0-2.9	0.5-1.0	.05	.32			
Dawtonia-----	0-3	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	3-15	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	15-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
147: Oxhead-----	0-3	10-18	1.20-1.35	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.32	.32	5	6	48
	3-21	17-22	1.20-1.35	0.6-2.0	0.10-0.16	0.0-2.9	0.5-1.0	.32	.43			
	21-61	9-15	1.35-1.60	0.6-2.0	0.12-0.18	0.0-2.9	0.0-0.5	.32	.37			
148: Packham-----	0-5	18-27	1.35-1.45	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.28	.37	3	7	38
	5-32	10-14	1.45-1.55	0.6-2.0	0.05-0.07	0.0-2.9	0.5-1.0	.28	.37			
	32-60	5-10	1.55-1.65	20.0-20.0	0.03-0.06	0.0-2.9	0.0-0.5	.10	.20			
149: Packham-----	0-5	18-27	1.35-1.45	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.28	.37	3	7	38
	5-32	10-14	1.45-1.55	0.6-2.0	0.05-0.07	0.0-2.9	0.5-1.0	.28	.37			
	32-60	5-10	1.55-1.65	20.0-20.0	0.03-0.06	0.0-2.9	0.0-0.5	.10	.20			
Perreau-----	0-5	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	5-18	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	18-37	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	37-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
150: Packmo-----	0-3	12-22	1.30-1.45	0.6-2.0	0.12-0.14	0.0-2.9	1.0-2.0	.24	.37	4	6	48
	3-10	12-22	1.30-1.45	0.6-2.0	0.12-0.14	0.0-2.9	0.5-1.0	.24	.37			
	10-40	10-18	1.30-1.45	0.6-6.0	0.06-0.08	0.0-2.9	0.0-0.5	.10	.32			
	40-60	5-10	1.20-1.30	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
Leadore-----	0-3	14-19	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	2	6	48
	3-16	16-22	1.35-1.45	0.6-2.0	0.07-0.14	0.0-2.9	0.0-0.5	.15	.32			
	16-60	2-10	1.50-1.60	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.17			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
151: Packmo-----	0-3	12-22	1.30-1.45	0.6-2.0	0.12-0.14	0.0-2.9	1.0-2.0	.24	.37	4	6	48
	3-10	12-22	1.30-1.45	0.6-2.0	0.12-0.14	0.0-2.9	0.5-1.0	.24	.37			
	10-40	10-18	1.30-1.45	0.6-6.0	0.06-0.08	0.0-2.9	0.0-0.5	.10	.32			
	40-60	5-10	1.20-1.30	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
Whiteknob-----	0-4	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	2	5	56
	4-8	10-18	1.50-1.60	0.6-2.0	0.11-0.17	0.0-2.9	0.5-1.0	.28	.43			
	8-13	5-10	1.40-1.50	2.0-6.0	0.05-0.10	0.0-2.9	0.5-1.0	.10	.37			
	13-60	3-8	1.40-1.50	20.0-20.0	0.03-0.05	0.0-2.9	0.5-1.0	.05	.20			
152: Pahsimeroi-----	0-7	12-19	1.60-1.65	0.6-2.0	0.11-0.13	0.0-2.9	1.0-2.0	.15	.28	2	6	48
	7-17	14-20	1.60-1.65	2.0-6.0	0.04-0.08	0.0-2.9	0.5-1.0	.05	.24			
	17-32	4-10	1.55-1.60	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.17			
	32-60	0-8	1.55-1.60	20.0-20.0	0.01-0.02	0.0-2.9	0.0-0.5	.02	.15			
153: Pahsimeroi-----	0-7	12-19	1.60-1.65	0.6-2.0	0.11-0.13	0.0-2.9	1.0-2.0	.15	.28	2	6	48
	7-17	14-20	1.60-1.65	2.0-6.0	0.04-0.08	0.0-2.9	0.5-1.0	.05	.24			
	17-32	4-10	1.55-1.60	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.17			
	32-60	0-8	1.55-1.60	20.0-20.0	0.01-0.02	0.0-2.9	0.0-0.5	.02	.15			
154: Pahsimeroi-----	0-5	12-19	1.60-1.65	0.6-2.0	0.04-0.06	0.0-2.9	1.0-2.0	.05	.32	2	8	0
	5-12	14-20	1.60-1.65	2.0-6.0	0.04-0.08	0.0-2.9	0.5-1.0	.05	.24			
	12-25	4-10	1.55-1.60	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.17			
	25-60	0-8	1.55-1.60	20.0-20.0	0.01-0.02	0.0-2.9	0.0-0.5	.02	.15			
155: Paint-----	0-3	12-19	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.15	.28	2	5	56
	3-12	12-19	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37			
	12-16	---	---	---	---	---	---	---	---			
	16-60	5-10	1.50-1.60	6.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.15			
Paint, cold-----	0-8	12-19	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.15	.28	2	5	56
	8-14	12-19	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37			
	14-15	---	---	---	---	---	---	---	---			
	15-60	5-10	1.50-1.60	6.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.15			
156: Paint-----	0-8	12-19	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.15	.28	2	5	56
	8-14	12-19	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37			
	14-24	---	---	---	---	---	---	---	---			
	24-60	5-10	1.50-1.60	6.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.15			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
156: Bluedome-----	0-5	8-14	1.40-1.50	0.6-2.0	0.16-0.18	0.0-2.9	1.0-2.0	.32	.37	3	4L	86
	5-35	10-16	1.50-1.60	0.6-2.0	0.10-0.19	0.0-2.9	0.0-0.5	.32	.37			
	35-37	---	---	---	---	---	---	---	---			
	37-60	5-12	1.60-1.70	20.0-20.0	0.01-0.02	0.0-2.9	0.0-0.5	.10	.20			
157: Paint-----	0-3	12-19	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.15	.28	2	5	56
	3-12	12-19	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37			
	12-16	---	---	---	---	---	---	---	---			
	16-60	5-10	1.50-1.60	6.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.15			
Whitecloud-----	0-6	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	0.8-2.0	.17	.32	2	5	56
	6-13	10-18	1.55-1.60	0.6-2.0	0.10-0.13	0.0-2.9	0.5-1.0	.15	.37			
	13-20	7-15	1.65-1.70	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.10	.43			
	20-60	3-8	1.65-1.70	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.20			
158: Parkay-----	0-13	15-20	1.25-1.35	0.6-2.0	0.09-0.12	0.0-2.9	2.0-3.0	.15	.37	5	7	38
	13-32	18-30	1.30-1.45	0.6-2.0	0.06-0.09	0.0-2.9	1.0-2.0	.10	.32			
	32-60	27-32	1.40-1.55	0.6-2.0	0.05-0.08	0.0-2.9	1.0-2.0	.10	.32			
Donkehill-----	0-5	13-18	1.40-1.55	0.6-2.0	0.06-0.08	0.0-2.9	2.0-5.0	.10	.37	1	7	38
	5-16	16-24	1.50-1.60	0.6-2.0	0.06-0.08	3.0-5.9	1.0-3.0	.10	.43			
	16-20	---	---	---	---	---	---	---	---			
159: Parkay-----	0-4	14-20	1.35-1.45	0.6-2.0	0.02-0.05	0.0-2.9	1.0-2.0	.15	.37	5	6	48
	4-10	15-20	1.35-1.45	0.6-2.0	0.02-0.05	0.0-2.9	1.0-2.0	.15	.37			
	10-20	15-24	1.40-1.50	0.6-2.0	0.06-0.11	0.0-2.9	1.0-2.0	.10	.32			
	20-35	18-24	1.40-1.50	0.6-2.0	0.10-0.12	0.0-2.9	0.7-2.0	.15	.32			
	35-60	15-20	1.45-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.3-0.5	.15	.32			
Nurkey-----	0-8	12-18	1.30-1.40	0.6-2.0	0.15-0.20	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	8-26	24-30	1.35-1.50	0.2-0.6	0.09-0.11	0.0-2.9	1.0-2.0	.15	.37			
	26-60	8-16	1.40-1.55	2.0-6.0	0.05-0.07	0.0-2.9	0.5-1.0	.05	.32			
160: Parkay-----	0-4	15-20	1.25-1.35	0.6-2.0	0.13-0.16	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	4-9	18-28	1.30-1.45	0.6-2.0	0.13-0.16	0.0-2.9	1.0-2.0	.20	.32			
	9-35	18-30	1.30-1.45	0.6-2.0	0.06-0.09	0.0-2.9	1.0-2.0	.10	.32			
	35-60	18-24	1.40-1.55	0.6-2.0	0.05-0.08	0.0-2.9	0.5-1.0	.10	.32			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
160: Nurkey-----	0-2	12-18	1.30-1.40	0.6-2.0	0.09-0.11	0.0-2.9	2.0-3.0	.15	.37	5	7	38
	2-6	14-22	1.30-1.40	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.15	.37			
	6-19	24-30	1.35-1.50	0.2-2.0	0.09-0.12	0.0-2.9	1.0-2.0	.15	.37			
	19-28	20-26	1.40-1.55	0.6-2.0	0.07-0.09	0.0-2.9	0.5-1.0	.10	.37			
	28-60	8-16	1.40-1.55	2.0-6.0	0.05-0.07	0.0-2.9	0.5-1.0	.05	.32			
161: Parkay-----	0-4	15-20	1.25-1.35	0.6-2.0	0.13-0.16	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	4-9	18-28	1.30-1.45	0.6-2.0	0.13-0.16	0.0-2.9	1.0-2.0	.20	.32			
	9-17	18-30	1.30-1.45	0.6-2.0	0.06-0.09	0.0-2.9	1.0-2.0	.10	.32			
	17-35	27-32	1.40-1.55	0.6-2.0	0.05-0.08	0.0-2.9	1.0-2.0	.10	.32			
	35-60	18-24	1.40-1.55	0.6-2.0	0.05-0.08	0.0-2.9	0.5-1.0	.10	.32			
Zeebar-----	0-7	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	7-24	20-30	1.50-1.60	0.2-0.6	0.07-0.12	0.0-2.9	0.5-1.0	.15	.32			
	24-60	15-25	1.50-1.65	0.6-2.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
162: Parkay-----	0-4	15-20	1.25-1.35	0.6-2.0	0.13-0.16	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	4-9	18-28	1.30-1.45	0.6-2.0	0.13-0.16	0.0-2.9	1.0-2.0	.20	.32			
	9-35	18-30	1.30-1.45	0.6-2.0	0.06-0.09	0.0-2.9	1.0-2.0	.10	.32			
	35-60	18-24	1.40-1.55	0.6-2.0	0.05-0.08	0.0-2.9	0.5-1.0	.10	.32			
Friedman-----	0-2	16-25	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	5	6	48
	2-18	18-25	1.30-1.40	0.6-2.0	0.08-0.13	0.0-2.9	1.0-3.0	.15	.43			
	18-37	30-40	1.40-1.50	0.06-0.2	0.05-0.10	3.0-5.9	0.5-2.0	.10	.37			
	37-60	40-50	1.40-1.50	0.06-0.2	0.04-0.08	3.0-5.9	0.5-2.0	.05	.24			
163: Pattee-----	0-3	10-18	1.00-1.10	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.43	.43	5	5	56
	3-26	10-18	1.00-1.10	0.6-2.0	0.18-0.20	0.0-2.9	0.5-1.0	.37	.49			
	26-60	10-18	1.00-1.10	0.6-2.0	0.15-0.20	0.0-2.9	0.5-1.0	.37	.49			
Perreau-----	0-4	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	4-13	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	13-26	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	26-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
164: Pattee-----	0-4	10-18	1.00-1.10	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.43	.43	5	5	56
	4-25	10-18	1.00-1.10	0.6-2.0	0.18-0.20	0.0-2.9	0.5-1.0	.37	.49			
	25-49	10-18	1.00-1.10	0.6-2.0	0.15-0.20	0.0-2.9	0.5-1.0	.37	.49			
	49-60	8-15	1.00-1.10	0.6-2.0	0.11-0.14	0.0-2.9	0.0-0.5	.24	.43			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
164: Perreau-----	0-4	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	4-13	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	13-26	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	26-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
165: Pedoli-----	0-2	18-25	1.05-1.20	0.6-2.0	0.14-0.17	0.0-2.9	1.0-2.0	.24	.43	3	7	38
	2-15	27-35	1.25-1.40	0.2-0.6	0.08-0.17	3.0-5.9	0.5-1.0	.20	.32			
	15-19	20-30	1.30-1.40	0.6-2.0	0.06-0.09	0.0-2.9	0.0-0.5	.20	.32			
	19-32	5-15	1.40-1.55	2.0-6.0	0.05-0.06	0.0-2.9	0.0-0.5	.05	.32			
	32-60	0-5	1.45-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.06-0.12	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
166: Pedoli-----	0-2	18-25	1.05-1.20	0.6-2.0	0.14-0.17	0.0-2.9	1.0-2.0	.24	.43	3	7	38
	2-15	27-35	1.25-1.40	0.2-0.6	0.08-0.17	3.0-5.9	0.5-1.0	.20	.32			
	15-19	20-30	1.30-1.40	0.6-2.0	0.06-0.09	0.0-2.9	0.0-0.5	.20	.32			
	19-32	5-15	1.40-1.55	2.0-6.0	0.05-0.06	0.0-2.9	0.0-0.5	.05	.32			
	32-60	0-5	1.45-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
Whiteknob-----	0-3	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	2	5	56
	3-7	10-18	1.50-1.60	0.6-2.0	0.11-0.17	0.0-2.9	0.5-1.0	.28	.43			
	7-18	5-10	1.40-1.50	2.0-6.0	0.05-0.10	0.0-2.9	0.5-1.0	.10	.37			
	18-60	3-8	1.40-1.50	20.0-20.0	0.03-0.05	0.0-2.9	0.5-1.0	.05	.20			
167: Penagul-----	0-2	27-35	1.30-1.50	0.2-0.6	0.10-0.13	3.0-5.9	0.5-1.0	.17	.32	1	8	0
	2-8	35-45	1.35-1.55	0.06-0.6	0.08-0.12	3.0-5.9	0.0-0.5	.15	.37			
	8-18	---	---	---	---	---	---	---	---			
Rosebriar-----	0-2	12-20	1.25-1.40	2.0-6.0	0.08-0.10	0.0-2.9	1.0-2.0	.20	.28	2	4	86
	2-12	35-45	1.35-1.50	0.06-0.6	0.08-0.12	3.0-5.9	0.5-1.0	.15	.37			
	12-17	20-30	1.40-1.55	0.6-2.0	0.06-0.09	3.0-5.9	0.5-1.0	.05	.37			
	17-27	---	---	---	---	---	---	---	---			
168: Perreau-----	0-4	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	4-13	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	13-26	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	26-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
169: Perreau-----	0-4	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	4-13	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	13-26	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	26-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
170: Perreau-----	0-5	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	5-18	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	18-21	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	21-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
171: Perreau-----	0-4	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	4-13	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	13-26	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	26-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.15	.32	5	6	48
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
172: Perreau-----	0-4	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	4-13	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	13-26	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	26-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
Dawtonia-----	0-4	15-25	1.40-1.55	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.15	.32	5	6	48
	4-12	25-33	1.40-1.55	0.2-0.6	0.09-0.11	3.0-5.9	0.5-1.0	.10	.43			
	12-24	22-27	1.40-1.55	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.10	.43			
	24-60	8-12	1.45-1.60	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.32			
173: Perreau-----	0-3	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	3-12	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	12-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
Pattee-----	0-4	10-18	1.00-1.10	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.43	.43	5	5	56
	4-25	10-18	1.00-1.10	0.6-2.0	0.18-0.20	0.0-2.9	0.5-1.0	.37	.49			
	25-49	10-18	1.00-1.10	0.6-2.0	0.15-0.20	0.0-2.9	0.5-1.0	.37	.49			
	49-60	8-15	1.00-1.10	0.6-2.0	0.11-0.14	0.0-2.9	0.0-0.5	.24	.43			
174: Pits, gravel-----	---	---	---	---	---	---	---	---	---	---	---	---

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
175: Pits, mine-----	---	---	---	---	---	---	---	---	---	---	---	---
176: Povey-----	0-5 5-22 22-60	8-18 10-20 8-18	1.30-1.45 1.30-1.45 1.30-1.45	0.6-2.0 0.6-2.0 0.6-2.0	0.09-0.11 0.06-0.11 0.06-0.08	0.0-2.9 0.0-2.9 0.0-2.9	4.0-10 2.0-6.0 0.5-2.0	.15 .15 .15	.32 .32 .32	5	7	38
177: Povey-----	0-4 4-16 16-60	8-18 10-20 8-18	1.30-1.45 1.30-1.45 1.30-1.45	0.6-2.0 0.6-2.0 0.6-2.0	0.09-0.11 0.06-0.11 0.06-0.08	0.0-2.9 0.0-2.9 0.0-2.9	4.0-10 2.0-6.0 0.5-2.0	.15 .15 .15	.32 .32 .32	5	7	38
Klug-----	0-7 7-12 12-60	12-20 12-20 12-20	1.30-1.40 1.35-1.50 1.40-1.55	0.6-2.0 0.6-6.0 0.6-6.0	0.08-0.10 0.06-0.11 0.03-0.08	0.0-2.9 0.0-2.9 0.0-2.9	2.0-3.0 1.0-2.0 0.5-1.0	.10 .10 .05	.32 .37 .43	5	7	38
178: Reck-----	0-2 2-5 5-20 20-46 46-60	16-26 27-38 40-60 35-50 12-18	1.30-1.40 1.30-1.40 1.35-1.45 1.35-1.45 1.30-1.40	0.6-2.0 0.2-0.6 0.00-0.06 0.06-0.2 2.0-6.0	0.10-0.15 0.10-0.12 0.07-0.09 0.08-0.10 0.06-0.08	3.0-5.9 3.0-5.9 6.0-8.9 6.0-8.9 0.0-2.9	2.0-3.0 1.0-2.0 0.5-2.0 0.5-1.0 0.5-1.0	.20 .15 .10 .10 .10	.37 .37 .37 .37 .32	5	7	38
Threedot-----	0-3 3-11 11-14 14-43 43-60	16-26 16-26 27-34 40-60 40-60	1.35-1.45 1.50-1.55 1.50-1.55 1.45-1.55 1.45-1.55	0.6-2.0 0.6-2.0 0.2-0.6 0.00-0.06 0.00-0.06	0.10-0.13 0.09-0.12 0.09-0.12 0.07-0.10 0.03-0.05	0.0-2.9 0.0-2.9 3.0-5.9 3.0-5.9 3.0-5.9	3.0-5.0 2.0-4.0 1.0-2.0 1.0-2.0 0.5-1.0	.32 .24 .20 .15 .10	.37 .37 .37 .37 .32	5	7	38
179: Redfish-----	0-7 7-13 13-60	10-15 10-15 0-5	1.35-1.50 1.35-1.50 1.45-1.60	0.6-2.0 0.6-2.0 20.0-20.0	0.14-0.18 0.07-0.12 0.02-0.03	0.0-2.9 0.0-2.9 0.0-2.9	2.0-4.0 1.0-2.0 0.5-1.0	.32 .15 .05	.32 .37 .20	2	8	0
Fezip-----	0-6 6-16 16-26 26-60	8-12 2-10 8-12 0-5	1.40-1.55 1.40-1.55 1.40-1.55 1.45-1.60	2.0-6.0 2.0-6.0 2.0-6.0 20.0-20.0	0.10-0.14 0.06-0.09 0.10-0.14 0.01-0.04	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	2.0-3.0 1.0-3.0 1.0-3.0 0.5-1.0	.24 .20 .20 .05	.24 .20 .28 .20	3	8	0
Lilylake-----	0-12 12-15 15-60	0-0 0-5 0-5	0.80-0.95 1.55-1.65 1.55-1.65	6.0-20.0 20.0-20.0 20.0-20.0	0.22-0.30 0.04-0.06 0.02-0.03	6.0-8.9 0.0-2.9 0.0-2.9	20-65 2.0-3.0 0.0-1.0	.02 .15 .02	.02 .20 .17	1	8	0

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
180: Resoot-----	0-3	16-22	1.30-1.40	0.6-2.0	0.11-0.13	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	3-10	18-27	1.30-1.40	0.6-2.0	0.08-0.13	0.0-2.9	1.0-2.0	.17	.37			
	10-60	35-50	1.40-1.50	0.06-0.2	0.05-0.10	6.0-8.9	0.5-1.0	.10	.37			
Friedman-----	0-3	16-25	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	5	6	48
	3-10	18-25	1.30-1.40	0.6-2.0	0.08-0.13	0.0-2.9	1.0-3.0	.15	.43			
	10-16	30-40	1.40-1.50	0.06-0.2	0.05-0.10	3.0-5.9	0.5-2.0	.10	.37			
	16-30	40-50	1.40-1.50	0.06-0.2	0.04-0.08	3.0-5.9	0.5-2.0	.05	.24			
	30-60	40-50	1.40-1.50	0.06-0.2	0.05-0.10	3.0-5.9	0.0-0.5	.10	.37			
181: Resoot-----	0-3	16-22	1.30-1.40	0.6-2.0	0.11-0.13	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	3-12	18-27	1.30-1.40	0.6-2.0	0.08-0.13	0.0-2.9	1.0-2.0	.17	.37			
	12-60	35-50	1.40-1.50	0.06-0.2	0.05-0.10	6.0-8.9	0.5-1.0	.10	.37			
Friedman-----	0-2	16-25	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	5	6	48
	2-18	18-25	1.30-1.40	0.6-2.0	0.08-0.13	0.0-2.9	1.0-3.0	.15	.43			
	18-37	30-40	1.40-1.50	0.06-0.2	0.05-0.10	3.0-5.9	0.5-2.0	.10	.37			
	37-60	40-50	1.40-1.50	0.06-0.2	0.04-0.08	3.0-5.9	0.5-2.0	.05	.24			
182: Ringle-----	0-4	12-19	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	0.5-1.0	.24	.37	2	5	56
	4-9	12-19	1.60-1.65	0.6-2.0	0.08-0.11	0.0-2.9	0.5-1.0	.15	.37			
	9-16	4-12	1.45-1.50	2.0-6.0	0.05-0.07	0.0-2.9	0.0-0.5	.10	.28			
	16-60	1-7	1.55-1.60	6.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
183: Rock outcrop-----	---	---	---	---	---	---	---	---	---	---	---	---
Rubble land-----	---	---	---	---	---	---	---	---	---	---	---	---
184: Sanfelipe-----	0-8	12-20	1.20-1.35	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.24	.32	2	6	48
	8-38	12-20	1.25-1.40	0.6-2.0	0.05-0.12	0.0-2.9	0.5-1.0	.10	.32			
	38-60	2-10	1.35-1.50	0.6-20.0	0.03-0.06	0.0-2.9	0.0-0.5	.05	.24			
Sanfelipe, moist-----	0-9	12-20	1.20-1.35	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.24	.32	2	6	48
	9-30	12-20	1.25-1.40	0.6-2.0	0.05-0.12	0.0-2.9	0.5-1.0	.10	.32			
	30-60	2-10	1.35-1.50	0.6-20.0	0.03-0.06	0.0-2.9	0.0-0.5	.05	.24			
185: Shenon-----	0-4	18-26	1.25-1.35	0.6-2.0	0.15-0.17	3.0-5.9	1.0-2.0	.32	.32	5	6	48
	4-14	24-34	1.30-1.40	0.2-0.6	0.12-0.19	3.0-5.9	1.0-2.0	.24	.37			
	14-24	28-34	1.30-1.40	0.2-0.6	0.12-0.19	3.0-5.9	0.5-1.0	.20	.32			
	24-60	16-22	1.30-1.40	0.6-2.0	0.12-0.16	0.0-2.9	0.0-0.5	.28	.32			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
186: Shenon-----	0-4	18-26	1.25-1.35	0.6-2.0	0.15-0.17	3.0-5.9	1.0-2.0	.32	.32	5	6	48
	4-14	24-34	1.30-1.40	0.2-0.6	0.12-0.19	3.0-5.9	1.0-2.0	.24	.37			
	14-24	28-34	1.30-1.40	0.2-0.6	0.12-0.19	3.0-5.9	0.5-1.0	.20	.32			
	24-60	16-22	1.30-1.40	0.6-2.0	0.12-0.16	0.0-2.9	0.0-0.5	.28	.32			
187: Shenon-----	0-4	18-26	1.25-1.35	0.6-2.0	0.15-0.17	3.0-5.9	1.0-2.0	.32	.32	5	6	48
	4-14	24-34	1.30-1.40	0.2-0.6	0.12-0.19	3.0-5.9	1.0-2.0	.24	.37			
	14-24	28-34	1.30-1.40	0.2-0.6	0.12-0.19	3.0-5.9	0.5-1.0	.20	.32			
	24-60	16-22	1.30-1.40	0.6-2.0	0.12-0.16	0.0-2.9	0.0-0.5	.28	.32			
Perreau-----	0-5	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	5-18	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	18-21	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	21-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
188: Shenon-----	0-4	18-26	1.25-1.35	0.6-2.0	0.15-0.17	3.0-5.9	1.0-2.0	.32	.32	5	6	48
	4-14	24-34	1.30-1.40	0.2-0.6	0.12-0.19	3.0-5.9	1.0-2.0	.24	.37			
	14-24	28-34	1.30-1.40	0.2-0.6	0.12-0.19	3.0-5.9	0.5-1.0	.20	.32			
	24-60	16-22	1.30-1.40	0.6-2.0	0.12-0.16	0.0-2.9	0.0-0.5	.28	.32			
Perreau-----	0-5	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.49	5	5	56
	5-18	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	18-21	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	21-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
189: Simeroi-----	0-3	10-20	1.50-1.55	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.17	.32	2	6	48
	3-16	10-20	1.55-1.65	0.6-2.0	0.07-0.09	0.0-2.9	1.0-2.0	.15	.43			
	16-54	10-15	1.60-1.65	0.6-6.0	0.04-0.07	0.0-2.9	0.5-1.0	.10	.20			
	54-60	0-8	1.65-1.70	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.05	.20			
190: Simeroi-----	0-3	10-20	1.50-1.55	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.17	.32	2	6	48
	3-8	10-20	1.55-1.65	0.6-2.0	0.07-0.09	0.0-2.9	1.0-2.0	.15	.43			
	8-48	10-15	1.60-1.65	0.6-6.0	0.04-0.07	0.0-2.9	0.5-1.0	.10	.20			
	48-60	0-8	1.65-1.70	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.05	.20			
191: Simeroi, cold-----	0-2	10-20	1.50-1.55	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.17	.32	2	6	48
	2-22	10-20	1.55-1.65	0.6-2.0	0.07-0.09	0.0-2.9	1.0-2.0	.15	.43			
	22-36	10-15	1.60-1.65	0.6-6.0	0.04-0.07	0.0-2.9	0.5-1.0	.10	.20			
	36-60	0-8	1.65-1.70	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.05	.20			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
191: Simeroi-----	0-11	10-20	1.50-1.55	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.17	.32	2	6	48
	11-60	10-15	1.60-1.65	0.6-6.0	0.04-0.07	0.0-2.9	0.5-1.0	.10	.20			
192: Simeroi-----	0-9	10-20	1.50-1.55	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.17	.32	2	6	48
	9-23	10-20	1.55-1.65	0.6-2.0	0.07-0.09	0.0-2.9	1.0-2.0	.15	.43			
	23-60	10-15	1.60-1.65	0.6-6.0	0.04-0.07	0.0-2.9	0.5-1.0	.10	.20			
Paint-----	0-8	12-19	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.15	.28	2	5	56
	8-14	12-19	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37			
	14-24	---	---	---	---	---	---	---	---			
	24-60	5-10	1.50-1.60	6.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.15			
Sanfelipe-----	0-8	12-20	1.20-1.35	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.24	.32	2	6	48
	8-38	12-20	1.25-1.40	0.6-2.0	0.05-0.12	0.0-2.9	0.5-1.0	.10	.32			
	38-60	2-10	1.35-1.50	0.6-20.0	0.03-0.06	0.0-2.9	0.0-0.5	.05	.24			
193: Simeroi-----	0-9	10-20	1.50-1.55	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.17	.32	2	6	48
	9-23	10-20	1.55-1.65	0.6-2.0	0.07-0.09	0.0-2.9	1.0-2.0	.15	.43			
	23-60	10-15	1.60-1.65	0.6-6.0	0.04-0.07	0.0-2.9	0.5-1.0	.10	.20			
Whitecloud-----	0-3	10-18	1.40-1.55	0.6-2.0	0.06-0.09	0.0-2.9	0.8-2.0	.10	.32	2	6	48
	3-17	10-18	1.55-1.60	0.6-2.0	0.10-0.13	0.0-2.9	0.5-1.0	.15	.37			
	17-60	3-8	1.65-1.70	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.20			
194: Skibo-----	0-5	10-20	1.30-1.40	0.6-2.0	0.14-0.17	0.0-2.9	2.0-3.0	.20	.37	2	6	48
	5-23	13-22	1.45-1.55	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.10	.37			
	23-60	13-22	1.45-1.55	0.6-6.0	0.05-0.09	0.0-2.9	0.5-1.0	.05	.37			
195: Smout-----	0-7	5-15	1.20-1.40	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.20	.37	2	6	48
	7-12	5-15	1.30-1.50	2.0-6.0	0.05-0.08	0.0-2.9	1.0-2.0	.10	.32			
	12-60	2-5	1.70-2.00	20.0-20.0	0.01-0.02	0.0-2.9	0.0-1.0	.10	.17			
Cowbone-----	0-16	10-15	1.10-1.25	0.6-2.0	0.19-0.21	0.0-2.9	2.0-3.0	.37	.37	4	8	0
	16-24	10-18	1.10-1.25	0.6-2.0	0.19-0.21	0.0-2.9	1.0-2.0	.37	.37			
	24-54	2-10	1.25-1.40	0.6-6.0	0.13-0.17	0.0-2.9	0.5-2.0	.32	.37			
	54-60	2-10	1.30-1.50	6.0-20.0	0.04-0.10	0.0-2.9	0.0-1.0	.10	.28			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
196:												
Smout-----	0-6	18-26	1.10-1.20	0.6-2.0	0.16-0.18	0.0-2.9	1.0-2.0	.37	.37	2	6	48
	6-11	5-15	1.30-1.50	2.0-6.0	0.05-0.08	0.0-2.9	1.0-2.0	.10	.32			
	11-60	2-5	1.70-2.00	20.0-20.0	0.01-0.02	0.0-2.9	0.0-1.0	.10	.17			
Yearian-----	0-15	18-26	1.10-1.20	0.6-2.0	0.16-0.18	0.0-2.9	3.0-4.0	.15	.43	5	8	0
	15-60	10-20	1.20-1.40	0.6-2.0	0.06-0.11	0.0-2.9	0.5-1.0	.10	.32			
197:												
Snowslide-----	0-7	12-18	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	0.5-1.0	.24	.37	5	6	48
	7-45	11-15	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.17	.37			
	45-60	5-18	1.55-1.60	0.6-2.0	0.01-0.05	0.0-2.9	0.5-1.0	.05	.28			
198:												
Snowslide-----	0-9	12-18	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.17	.37	5	7	38
	9-21	11-15	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.17	.37			
	21-55	5-18	1.55-1.60	0.6-2.0	0.01-0.05	0.0-2.9	0.5-1.0	.05	.28			
	55-60	11-15	1.60-1.65	0.6-2.0	0.02-0.04	0.0-2.9	0.0-0.5	.32	.43			
199:												
Snowslide-----	0-9	12-18	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.17	.37	5	7	38
	9-21	11-15	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.17	.37			
	21-55	5-18	1.55-1.60	0.6-2.0	0.01-0.05	0.0-2.9	0.5-1.0	.05	.28			
	55-60	11-15	1.60-1.65	0.6-2.0	0.02-0.04	0.0-2.9	0.0-0.5	.32	.43			
200:												
Snowslide-----	0-3	10-18	1.45-1.50	0.6-2.0	0.18-0.21	0.0-2.9	1.0-3.0	.43	.43	4	5	56
	3-12	12-20	1.40-1.50	0.6-2.0	0.12-0.17	0.0-2.9	0.5-1.0	.32	.43			
	12-39	5-15	1.60-1.65	2.0-6.0	0.05-0.07	0.0-2.9	0.5-1.0	.05	.24			
	39-44	12-20	1.40-1.50	0.6-2.0	0.07-0.10	0.0-2.9	0.0-0.5	.15	.37			
	44-60	5-9	1.55-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.15			
Badland-----	---	---	---	---	---	---	---	---	---	---	---	---
Perreau-----	0-5	12-18	1.25-1.35	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.37	.43	5	5	56
	5-18	25-34	1.30-1.40	0.2-0.6	0.16-0.20	3.0-5.9	0.5-1.0	.37	.43			
	18-21	18-25	1.25-1.35	0.6-2.0	0.16-0.19	0.0-2.9	0.5-1.0	.37	.43			
	21-60	10-16	1.20-1.30	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
201:												
Snowslide-----	0-9	12-18	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.17	.37	5	7	38
	9-21	11-15	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.17	.37			
	21-55	5-18	1.55-1.60	0.6-2.0	0.01-0.05	0.0-2.9	0.5-1.0	.05	.28			
	55-60	11-15	1.60-1.65	0.6-2.0	0.02-0.04	0.0-2.9	0.0-0.5	.32	.43			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
201: Farvant-----	0-2	12-20	1.25-1.35	2.0-6.0	0.07-0.11	0.0-2.9	0.0-0.5	.24	.32	2	4	86
	2-6	12-20	1.30-1.40	2.0-6.0	0.07-0.11	0.0-2.9	0.0-0.5	.10	.24			
	6-12	12-20	1.10-1.25	2.0-6.0	0.05-0.08	0.0-2.9	0.0-0.5	.05	.32			
	12-16	---	---	---	---	---	---	---	---			
202: Snowslide, south-----	0-7	12-18	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	0.5-1.0	.24	.37	5	6	48
	7-45	11-15	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.17	.37			
	45-60	5-18	1.55-1.60	0.6-2.0	0.01-0.05	0.0-2.9	0.5-1.0	.05	.28			
Zer-----	0-5	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	5-14	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	14-26	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
	26-60	2-8	1.55-1.65	6.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
Snowslide, north-----	0-9	12-18	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	0.5-1.0	.24	.37	5	6	48
	9-60	5-18	1.55-1.60	0.6-2.0	0.01-0.05	0.0-2.9	0.5-1.0	.05	.28			
203: Soen-----	0-7	20-26	1.30-1.45	0.6-2.0	0.15-0.19	3.0-5.9	1.0-2.0	.28	.37	5	7	38
	7-20	35-50	1.40-1.55	0.06-0.2	0.14-0.20	6.0-8.9	0.5-2.0	.24	.28			
	20-60	27-33	1.40-1.55	0.2-0.6	0.13-0.17	3.0-5.9	0.0-0.5	.20	.28			
204: Soen-----	0-5	20-26	1.30-1.45	0.6-2.0	0.19-0.21	3.0-5.9	1.0-2.0	.32	.37	5	6	48
	5-14	35-50	1.40-1.55	0.06-0.2	0.14-0.20	6.0-8.9	0.5-2.0	.24	.28			
	14-60	27-33	1.40-1.55	0.2-0.6	0.13-0.17	3.0-5.9	0.0-0.5	.20	.28			
Justesen-----	0-4	10-27	1.15-1.25	0.6-2.0	0.13-0.18	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	4-40	27-35	1.20-1.40	0.2-0.6	0.13-0.18	3.0-5.9	0.5-1.0	.37	.37			
	40-60	18-35	1.20-1.30	0.2-2.0	0.12-0.20	0.0-2.9	0.0-0.5	.28	.37			
Howcan-----	0-4	12-20	1.25-1.35	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	4-10	20-25	1.25-1.35	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37			
	10-48	20-32	1.30-1.45	0.6-2.0	0.05-0.09	0.0-2.9	0.5-1.0	.15	.43			
	48-64	12-20	1.30-1.45	0.6-2.0	0.05-0.09	0.0-2.9	0.5-1.0	.10	.43			
205: Sparmo-----	0-5	12-18	1.35-1.45	0.6-2.0	0.17-0.20	0.0-2.9	1.0-2.0	.43	.43	5	4L	86
	5-37	12-16	1.35-1.50	0.6-2.0	0.09-0.13	0.0-2.9	0.5-1.0	.32	.43			
	37-60	5-14	1.50-1.65	2.0-6.0	0.05-0.09	0.0-2.9	0.0-0.5	.10	.37			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
206: Sparmo-----	0-3	12-18	1.35-1.45	0.6-2.0	0.13-0.18	0.0-2.9	1.0-2.0	.37	.37	5	4L	86
	3-38	12-16	1.35-1.50	0.6-2.0	0.09-0.13	0.0-2.9	0.5-1.0	.32	.43			
	38-60	5-14	1.50-1.65	2.0-6.0	0.05-0.09	0.0-2.9	0.0-0.5	.10	.37			
Zer-----	0-3	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	3-10	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	10-23	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
	23-60	2-8	1.55-1.65	6.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
207: Sparmo-----	0-3	12-18	1.35-1.45	0.6-2.0	0.13-0.18	0.0-2.9	1.0-2.0	.37	.37	5	4L	86
	3-38	12-16	1.35-1.50	0.6-2.0	0.09-0.13	0.0-2.9	0.5-1.0	.32	.43			
	38-60	5-14	1.50-1.65	2.0-6.0	0.05-0.09	0.0-2.9	0.0-0.5	.10	.37			
Zer-----	0-3	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	3-10	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	10-23	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
	23-60	2-8	1.55-1.65	6.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
208: Sprabat-----	0-5	8-15	1.50-1.60	2.0-6.0	0.09-0.12	0.0-2.9	0.5-1.0	.17	.28	5	4	86
	5-7	8-15	1.55-1.65	2.0-6.0	0.11-0.13	0.0-2.9	0.0-0.5	.24	.28			
	7-41	8-15	1.55-1.65	2.0-6.0	0.09-0.12	0.0-2.9	0.0-0.5	.17	.28			
	41-53	3-8	1.40-1.50	20.0-20.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.15			
	53-60	8-15	1.55-1.65	2.0-6.0	0.09-0.13	0.0-2.9	0.0-0.5	.17	.28			
209: Sprabat-----	0-5	8-15	1.50-1.60	2.0-6.0	0.09-0.12	0.0-2.9	0.5-1.0	.17	.28	5	4	86
	5-7	8-15	1.55-1.65	2.0-6.0	0.11-0.13	0.0-2.9	0.0-0.5	.24	.28			
	7-41	8-15	1.55-1.65	2.0-6.0	0.09-0.12	0.0-2.9	0.0-0.5	.17	.28			
	41-53	3-8	1.40-1.50	20.0-20.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.15			
	53-60	8-15	1.55-1.65	2.0-6.0	0.09-0.13	0.0-2.9	0.0-0.5	.17	.28			
Snowslide-----	0-7	12-18	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	0.5-1.0	.24	.37	5	6	48
	7-45	11-15	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.17	.37			
	45-60	5-18	1.55-1.60	0.6-2.0	0.01-0.05	0.0-2.9	0.5-1.0	.05	.28			
210: Struggle-----	0-2	5-12	1.30-1.45	2.0-6.0	0.08-0.10	0.0-2.9	1.0-3.0	.24	.37	2	4	86
	2-18	2-10	1.30-1.45	2.0-6.0	0.07-0.10	0.0-2.9	0.5-1.0	.28	.37			
	18-38	2-10	1.25-1.40	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
	38-60	0-5	1.25-1.40	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.24			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
210: Struggle, very stony--	0-2	5-12	1.30-1.45	2.0-6.0	0.09-0.11	0.0-2.9	1.0-3.0	.28	.37	2	5	56
	2-13	2-10	1.30-1.45	2.0-6.0	0.07-0.10	0.0-2.9	0.5-1.0	.28	.37			
	13-25	2-10	1.25-1.40	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
	25-60	0-5	1.25-1.40	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.24			
211: Surrett-----	0-8	12-20	1.40-1.50	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.20	.37	3	6	48
	8-27	12-20	1.55-1.65	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.15	.37			
	27-36	---	---	---	---	---	---	---	---			
	36-60	5-10	1.50-1.60	2.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
212: Surrett-----	0-10	12-20	1.40-1.50	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.20	.37	3	6	48
	10-30	12-20	1.55-1.65	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.15	.37			
	30-40	---	---	---	---	---	---	---	---			
	40-60	5-10	1.50-1.60	2.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
Nurkey-----	0-4	16-25	1.35-1.45	0.6-2.0	0.13-0.15	0.0-2.9	1.0-2.0	.20	.37	5	6	48
	4-10	19-28	1.35-1.45	0.2-0.6	0.13-0.16	0.0-2.9	1.0-2.0	.15	.37			
	10-20	24-30	1.35-1.45	0.2-0.6	0.12-0.14	3.0-5.9	1.0-2.0	.15	.37			
	20-60	5-20	1.35-1.45	0.6-2.0	0.09-0.13	0.0-2.9	0.5-1.0	.10	.32			
213: Swahlen-----	0-2	15-20	1.25-1.35	0.6-2.0	0.12-0.14	0.0-2.9	1.0-2.0	.15	.32	5	6	48
	2-8	15-20	1.25-1.35	0.6-2.0	0.08-0.10	0.0-2.9	1.0-2.0	.17	.32			
	8-27	20-25	1.25-1.35	0.6-2.0	0.06-0.09	0.0-2.9	0.5-1.0	.10	.37			
	27-60	10-20	1.35-1.50	2.0-6.0	0.05-0.07	0.0-2.9	0.0-0.5	.10	.20			
Packham-----	0-5	18-27	1.35-1.45	0.6-2.0	0.09-0.11	0.0-2.9	1.0-2.0	.28	.37	3	6	48
	5-32	10-14	1.45-1.55	0.6-2.0	0.05-0.07	0.0-2.9	0.5-1.0	.28	.37			
	32-60	5-10	1.55-1.65	20.0-20.0	0.03-0.06	0.0-2.9	0.0-0.5	.10	.20			
214: Swahlen-----	0-2	15-20	1.25-1.35	0.6-2.0	0.12-0.14	0.0-2.9	1.0-2.0	.15	.32	5	6	48
	2-8	15-20	1.25-1.35	0.6-2.0	0.08-0.10	0.0-2.9	1.0-2.0	.17	.32			
	8-27	20-25	1.25-1.35	0.6-2.0	0.06-0.09	0.0-2.9	0.5-1.0	.10	.37			
	27-60	10-20	1.35-1.50	2.0-6.0	0.05-0.07	0.0-2.9	0.0-0.5	.10	.20			
Yearian-----	0-2	12-20	1.10-1.20	0.6-2.0	0.11-0.14	0.0-2.9	3.0-4.0	.15	.43	5	8	0
	2-12	18-25	1.15-1.35	0.6-2.0	0.07-0.11	0.0-2.9	1.0-3.0	.10	.32			
	12-60	10-20	1.20-1.40	0.6-2.0	0.06-0.11	0.0-2.9	0.5-1.0	.10	.32			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
215: Thosand-----	0-5	15-26	1.20-1.35	0.6-2.0	0.18-0.20	0.0-2.9	2.0-3.0	.49	.55	4	8	0
	5-22	18-26	1.20-1.35	0.6-2.0	0.14-0.20	0.0-2.9	1.0-2.0	.37	.37			
	22-39	18-27	1.20-1.35	0.6-2.0	0.09-0.17	0.0-2.9	0.5-1.0	.17	.32			
	39-44	14-20	1.25-1.45	0.6-2.0	0.07-0.12	0.0-2.9	0.0-0.5	.17	.32			
	44-60	2-8	1.35-1.50	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
Chillybu-----	0-31	0-0	0.30-0.60	0.6-2.0	0.20-0.28	6.0-8.9	40-80	.02	.02	2	8	0
	31-42	0-0	0.50-0.75	0.6-2.0	0.22-0.30	6.0-8.9	40-80	.02	.02			
	42-60	18-27	1.50-1.60	0.6-2.0	0.09-0.12	3.0-5.9	0.5-1.0	.15	.43			
216: Thosand-----	0-5	15-26	1.20-1.35	0.6-2.0	0.18-0.20	0.0-2.9	2.0-3.0	.49	.55	4	8	0
	5-22	18-26	1.20-1.35	0.6-2.0	0.14-0.20	0.0-2.9	1.0-2.0	.37	.37			
	22-39	18-27	1.20-1.35	0.6-2.0	0.09-0.17	0.0-2.9	0.5-1.0	.17	.32			
	39-44	14-20	1.25-1.45	0.6-2.0	0.07-0.12	0.0-2.9	0.0-0.5	.17	.32			
	44-60	2-8	1.35-1.50	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
Sanocrane-----	0-2	15-25	1.20-1.35	0.6-2.0	0.18-0.20	0.0-2.9	4.0-8.0	.43	.43	3	8	0
	2-24	18-26	1.20-1.35	0.6-2.0	0.18-0.20	0.0-2.9	1.0-3.0	.43	.43			
	24-60	0-5	1.40-1.55	20.0-20.0	0.03-0.04	0.0-2.9	0.5-2.0	.05	.28			
217: Thosand-----	0-5	15-26	1.20-1.35	0.6-2.0	0.18-0.20	0.0-2.9	2.0-3.0	.49	.55	4	8	0
	5-22	18-26	1.20-1.35	0.6-2.0	0.14-0.20	0.0-2.9	1.0-2.0	.37	.37			
	22-39	18-27	1.20-1.35	0.6-2.0	0.09-0.17	0.0-2.9	0.5-1.0	.17	.32			
	39-44	14-20	1.25-1.45	0.6-2.0	0.07-0.12	0.0-2.9	0.0-0.5	.17	.32			
	44-60	2-8	1.35-1.50	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
Wiskisprings-----	0-8	16-25	1.20-1.35	0.6-2.0	0.17-0.19	0.0-2.9	2.0-3.0	.49	.55	4	8	0
	8-49	18-25	1.20-1.35	0.6-2.0	0.17-0.19	0.0-2.9	1.0-2.0	.43	.43			
	49-54	16-25	1.25-1.40	0.6-2.0	0.13-0.14	0.0-2.9	0.5-1.0	.24	.43			
	54-60	2-10	1.40-1.60	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
218: Threedot-----	0-8	18-25	1.45-1.50	0.6-2.0	0.15-0.17	0.0-2.9	3.0-5.0	.32	.37	5	6	48
	8-11	27-32	1.50-1.55	0.2-0.6	0.16-0.18	3.0-5.9	2.0-4.0	.28	.32			
	11-19	32-40	1.55-1.60	0.2-0.6	0.12-0.16	3.0-5.9	1.0-2.0	.17	.37			
	19-51	40-60	1.40-1.50	0.00-0.06	0.08-0.10	3.0-5.9	1.0-2.0	.10	.32			
	51-60	20-26	1.45-1.50	0.6-2.0	0.08-0.11	0.0-2.9	0.5-1.0	.10	.37			
219: Threedot-----	0-10	18-25	1.35-1.50	0.6-2.0	0.11-0.14	0.0-2.9	3.0-5.0	.17	.32	5	7	38
	10-29	32-40	1.55-1.60	0.2-0.6	0.12-0.16	3.0-5.9	1.0-2.0	.17	.37			
	29-60	40-60	1.40-1.50	0.00-0.06	0.08-0.10	3.0-5.9	1.0-2.0	.10	.32			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
220: Threedot, dry-----	0-6	18-25	1.35-1.50	0.6-2.0	0.11-0.14	0.0-2.9	3.0-5.0	.17	.32	5	7	38
	6-28	32-40	1.55-1.60	0.2-0.6	0.12-0.16	3.0-5.9	1.0-2.0	.17	.37			
	28-60	40-60	1.40-1.50	0.00-0.06	0.08-0.10	3.0-5.9	1.0-2.0	.10	.32			
Threedot-----	0-8	18-25	1.45-1.50	0.6-2.0	0.15-0.17	0.0-2.9	3.0-5.0	.32	.37	5	6	48
	8-11	27-32	1.50-1.55	0.2-0.6	0.16-0.18	3.0-5.9	2.0-4.0	.28	.32			
	11-19	32-40	1.55-1.60	0.2-0.6	0.12-0.16	3.0-5.9	1.0-2.0	.17	.37			
	19-51	40-60	1.40-1.50	0.00-0.06	0.08-0.10	3.0-5.9	1.0-2.0	.10	.32			
	51-60	20-26	1.45-1.50	0.6-2.0	0.08-0.11	0.0-2.9	0.5-1.0	.10	.37			
221: Typic Cryaquepts-----	0-7	18-26	1.25-1.35	0.6-2.0	0.18-0.21	3.0-5.9	1.0-2.0	.43	.43	5	8	0
	7-13	20-35	1.40-1.55	0.2-2.0	0.18-0.21	3.0-5.9	1.0-2.0	.37	.37			
	13-60	16-39	1.40-1.55	0.06-2.0	0.15-0.21	3.0-5.9	0.5-1.0	.37	.37			
222: Ureal-----	0-7	5-15	1.60-1.65	2.0-6.0	0.06-0.08	0.0-2.9	1.0-2.0	.10	.28	2	5	56
	7-14	5-15	1.60-1.65	2.0-6.0	0.04-0.06	0.0-2.9	0.5-1.0	.02	.17			
	14-24	---	---	---	---	---	---	---	---			
Zeebar-----	0-3	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	3-13	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	13-19	20-30	1.50-1.60	0.2-0.6	0.07-0.12	0.0-2.9	0.5-1.0	.15	.32			
	19-29	25-30	1.50-1.65	0.2-0.6	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
	29-60	15-25	1.50-1.65	0.6-2.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
Dacont-----	0-4	15-20	1.35-1.45	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.10	.37	5	7	38
	4-10	20-32	1.35-1.45	0.6-2.0	0.08-0.11	3.0-5.9	0.5-2.0	.15	.37			
	10-18	16-22	1.35-1.45	0.6-2.0	0.07-0.08	0.0-2.9	0.0-0.5	.10	.32			
	18-60	15-22	1.40-1.50	0.6-2.0	0.02-0.05	0.0-2.9	0.0-0.5	.10	.32			
223: Venum-----	0-2	15-26	1.30-1.40	0.6-2.0	0.07-0.11	3.0-5.9	1.0-2.0	.10	.37	5	8	0
	2-20	35-50	1.30-1.40	0.06-0.2	0.08-0.13	3.0-5.9	1.0-2.0	.10	.37			
	20-42	35-50	1.30-1.40	0.06-0.2	0.08-0.13	3.0-5.9	0.0-0.5	.10	.37			
	42-60	22-38	1.25-1.35	0.2-0.6	0.09-0.13	3.0-5.9	0.0-0.5	.10	.43			
Cronks-----	0-10	20-25	1.30-1.40	0.6-2.0	0.07-0.11	0.0-2.9	1.0-2.0	.10	.37	5	8	0
	10-35	35-50	1.30-1.40	0.06-0.2	0.04-0.07	6.0-8.9	0.5-2.0	.05	.17			
	35-55	20-35	1.40-1.50	0.2-2.0	0.08-0.13	3.0-5.9	0.0-0.5	.10	.43			
	55-70	20-35	1.40-1.50	0.2-2.0	0.08-0.13	3.0-5.9	0.0-0.5	.10	.43			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
224:												
Venum-----	0-2	15-25	1.30-1.40	0.6-2.0	0.15-0.17	3.0-5.9	1.0-2.0	.24	.37	5	6	48
	2-9	35-50	1.30-1.40	0.06-0.2	0.08-0.13	3.0-5.9	1.0-2.0	.10	.37			
	9-26	35-50	1.30-1.40	0.06-0.2	0.08-0.13	3.0-5.9	0.0-0.5	.10	.37			
	26-60	22-38	1.25-1.35	0.2-0.6	0.09-0.13	3.0-5.9	0.0-0.5	.10	.43			
Rock outcrop-----	---	---	---	---	---	---	---	---	---	---	---	---
225:												
Venum-----	0-2	15-26	1.30-1.40	0.6-2.0	0.07-0.11	3.0-5.9	1.0-2.0	.10	.37	5	7	38
	2-20	35-50	1.30-1.40	0.06-0.2	0.08-0.13	3.0-5.9	1.0-2.0	.10	.37			
	20-42	35-50	1.30-1.40	0.06-0.2	0.08-0.13	3.0-5.9	0.0-0.5	.10	.37			
	42-60	22-38	1.25-1.35	0.2-0.6	0.09-0.13	3.0-5.9	0.0-0.5	.10	.43			
Custco-----	0-4	12-22	1.60-1.65	0.6-2.0	0.10-0.14	0.0-2.9	1.0-3.0	.17	.32	5	6	48
	4-17	18-27	1.50-1.60	0.6-2.0	0.09-0.11	3.0-5.9	1.0-2.0	.15	.32			
	17-60	6-15	1.60-1.70	2.0-20.0	0.03-0.10	0.0-2.9	0.0-0.5	.05	.32			
226:												
Whitecloud-----	0-3	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	0.8-2.0	.17	.32	2	5	56
	3-18	7-15	1.65-1.70	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.10	.43			
	18-60	3-8	1.65-1.70	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.20			
227:												
Whitecloud-----	0-4	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	0.8-2.0	.17	.32	2	5	56
	4-14	10-18	1.55-1.60	0.6-2.0	0.10-0.13	0.0-2.9	0.5-1.0	.15	.37			
	14-60	3-8	1.65-1.70	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.20			
228:												
Whitecloud-----	0-5	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	0.8-2.0	.17	.32	2	5	56
	5-14	7-15	1.65-1.70	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.10	.43			
	14-60	3-8	1.65-1.70	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.20			
Sanfelipe-----	0-8	12-20	1.20-1.35	0.6-2.0	0.12-0.15	0.0-2.9	1.0-2.0	.24	.32	2	6	48
	8-38	12-20	1.25-1.40	0.6-2.0	0.05-0.12	0.0-2.9	0.5-1.0	.10	.32			
	38-60	2-10	1.35-1.50	0.6-20.0	0.03-0.06	0.0-2.9	0.0-0.5	.05	.24			
Fandow-----	0-4	12-20	1.20-1.45	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	2	6	48
	4-16	12-20	1.25-1.45	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.15	.37			
	16-25	---	---	---	---	---	---	---	---			
	25-60	3-8	1.50-1.60	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.17			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
229:												
Whitecloud-----	0-2	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	0.8-2.0	.17	.32	2	5	56
	2-6	10-18	1.55-1.60	0.6-2.0	0.10-0.13	0.0-2.9	0.5-1.0	.15	.37			
	6-17	7-15	1.65-1.70	2.0-6.0	0.05-0.10	0.0-2.9	0.0-0.5	.10	.43			
	17-60	3-8	1.65-1.70	20.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.20			
Simeroi-----	0-3	10-20	1.50-1.55	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.17	.32	2	6	48
	3-16	10-20	1.55-1.65	0.6-2.0	0.07-0.09	0.0-2.9	1.0-2.0	.15	.43			
	16-54	10-15	1.60-1.65	0.6-6.0	0.04-0.07	0.0-2.9	0.5-1.0	.10	.20			
	54-60	0-8	1.65-1.70	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.05	.20			
230:												
Whiteknob-----	0-4	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	2	5	56
	4-7	10-18	1.50-1.60	0.6-2.0	0.11-0.17	0.0-2.9	0.5-1.0	.28	.43			
	7-11	5-10	1.40-1.50	2.0-6.0	0.05-0.10	0.0-2.9	0.5-1.0	.10	.37			
	11-60	3-8	1.40-1.50	20.0-20.0	0.03-0.05	0.0-2.9	0.5-1.0	.05	.20			
231:												
Whiteknob-----	0-3	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	1	5	56
	3-9	10-18	1.50-1.60	0.6-2.0	0.11-0.17	0.0-2.9	0.5-1.0	.28	.43			
	9-60	3-8	1.40-1.50	20.0-20.0	0.03-0.05	0.0-2.9	0.5-1.0	.05	.20			
Leadore-----	0-3	14-19	1.30-1.40	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	2	6	48
	3-20	16-22	1.35-1.45	0.6-2.0	0.07-0.14	0.0-2.9	0.0-0.5	.15	.32			
	20-60	2-10	1.50-1.60	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.17			
232:												
Whiteknob-----	0-4	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	2	5	56
	4-7	10-18	1.50-1.60	0.6-2.0	0.11-0.17	0.0-2.9	0.5-1.0	.28	.43			
	7-11	5-10	1.40-1.50	2.0-6.0	0.05-0.10	0.0-2.9	0.5-1.0	.10	.37			
	11-60	3-8	1.40-1.50	20.0-20.0	0.03-0.05	0.0-2.9	0.5-1.0	.05	.20			
Zer-----	0-3	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	3-9	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	9-21	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
	21-60	2-8	1.55-1.65	6.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
233:												
Wiggleton-----	0-6	12-20	1.35-1.50	0.6-2.0	0.13-0.17	0.0-2.9	2.0-3.0	.24	.43	2	6	48
	6-12	8-12	1.60-1.65	2.0-6.0	0.06-0.08	0.0-2.9	0.5-2.0	.05	.15			
	12-60	1-8	1.55-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
234:												
Wiggleton-----	0-5	10-18	1.40-1.50	2.0-6.0	0.04-0.08	0.0-2.9	2.0-4.0	.10	.28	2	5	56
	5-11	7-12	1.40-1.50	2.0-6.0	0.03-0.07	0.0-2.9	0.5-2.0	.05	.32			
	11-60	2-5	1.50-1.60	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.17			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
234: Copperbasin-----	0-10	10-15	1.30-1.45	2.0-6.0	0.11-0.14	0.0-2.9	1.0-2.0	.20	.37	5	4	86
	10-27	8-12	1.25-1.40	6.0-20.0	0.04-0.05	0.0-2.9	0.5-2.0	.05	.17			
	27-60	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
235: Wimpey-----	0-3	40-45	1.10-1.25	0.06-0.2	0.15-0.17	6.0-8.9	3.0-4.0	.24	.24	3	8	0
	3-14	35-50	1.00-1.10	0.06-0.2	0.16-0.20	6.0-8.9	2.0-3.0	.24	.32			
	14-27	35-50	1.00-1.10	0.06-0.2	0.16-0.20	6.0-8.9	1.0-2.0	.28	.32			
	27-60	2-12	1.30-1.45	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.05			
Zeph-----	0-5	40-50	1.10-1.30	0.06-0.2	0.15-0.17	6.0-8.9	2.0-3.0	.24	.24	5	8	0
	5-23	5-8	1.50-1.70	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.02	.10			
	23-60	5-8	1.50-1.70	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.02	.10			
Ajax-----	0-11	40-55	1.15-1.30	0.06-0.2	0.15-0.17	6.0-8.9	3.0-6.0	.28	.28	5	8	0
	11-32	36-52	1.15-1.30	0.06-0.2	0.14-0.21	6.0-8.9	1.0-3.0	.28	.28			
	32-60	15-33	1.20-1.50	0.06-2.0	0.06-0.21	3.0-5.9	0.5-2.0	.37	.37			
236: Windcoat-----	0-3	12-18	1.20-1.35	0.6-2.0	0.13-0.17	0.0-2.9	0.5-2.0	.17	.32	1	5	56
	3-14	12-20	1.20-1.40	0.6-2.0	0.07-0.14	0.0-2.9	0.5-1.0	.17	.32			
	14-18	---	---	---	---	---	---	---	---			
	18-60	3-8	1.45-1.60	6.0-20.0	0.02-0.06	0.0-2.9	0.0-0.5	.05	.28			
237: Windcoat-----	0-5	12-18	1.20-1.35	0.6-2.0	0.13-0.17	0.0-2.9	0.5-2.0	.17	.32	1	5	56
	5-15	12-20	1.20-1.40	0.6-2.0	0.07-0.14	0.0-2.9	0.5-1.0	.17	.32			
	15-18	---	---	---	---	---	---	---	---			
	18-60	3-8	1.45-1.60	6.0-20.0	0.02-0.06	0.0-2.9	0.0-0.5	.05	.28			
Fadow-----	0-7	12-20	1.20-1.45	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	2	5	56
	7-15	12-20	1.25-1.45	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.15	.37			
	15-17	---	---	---	---	---	---	---	---			
	17-60	3-8	1.50-1.60	20.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.02	.17			
238: Wiskisprings-----	0-8	16-25	1.20-1.35	0.6-2.0	0.17-0.19	0.0-2.9	2.0-3.0	.49	.55	4	8	0
	8-49	18-25	1.20-1.35	0.6-2.0	0.17-0.19	0.0-2.9	1.0-2.0	.43	.43			
	49-54	16-25	1.25-1.40	0.6-2.0	0.13-0.14	0.0-2.9	0.5-1.0	.24	.43			
	54-60	2-10	1.40-1.60	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
Biglost-----	0-5	12-17	1.30-1.45	0.6-2.0	0.18-0.20	0.0-2.9	2.0-3.0	.37	.43	3	5	56
	5-26	12-17	1.30-1.45	0.6-2.0	0.18-0.20	0.0-2.9	1.0-3.0	.37	.43			
	26-60	0-5	1.50-1.65	20.0-20.0	0.02-0.03	0.0-2.9	0.0-1.0	.05	.20			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
239: Wiskisprings-----	0-8	16-25	1.20-1.35	0.6-2.0	0.17-0.19	0.0-2.9	2.0-3.0	.49	.55	4	8	0
	8-49	18-25	1.20-1.35	0.6-2.0	0.17-0.19	0.0-2.9	1.0-2.0	.43	.43			
	49-54	16-25	1.25-1.40	0.6-2.0	0.13-0.14	0.0-2.9	0.5-1.0	.24	.43			
	54-60	2-10	1.40-1.60	20.0-20.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.20			
Biglost-----	0-5	12-17	1.30-1.45	0.6-2.0	0.18-0.20	0.0-2.9	2.0-3.0	.37	.43	3	5	56
	5-26	12-17	1.30-1.45	0.6-2.0	0.18-0.20	0.0-2.9	1.0-3.0	.37	.43			
	26-60	0-5	1.50-1.65	20.0-20.0	0.02-0.03	0.0-2.9	0.0-1.0	.05	.20			
Copperbasin-----	0-5	10-15	1.30-1.45	2.0-6.0	0.07-0.09	0.0-2.9	1.0-2.0	.10	.32	5	5	56
	5-25	8-12	1.25-1.40	6.0-20.0	0.04-0.05	0.0-2.9	0.5-2.0	.05	.17			
	25-33	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.5-1.0	.02	.20			
	33-60	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
240: Xeric Torrifluvents---	0-3	8-14	1.30-1.45	0.6-2.0	0.16-0.18	0.0-2.9	1.0-2.0	.32	.37	4	5	56
	3-44	10-16	1.30-1.45	0.6-2.0	0.17-0.19	0.0-2.9	0.5-1.0	.32	.43			
	44-60	2-8	1.40-1.60	20.0-20.0	0.02-0.03	0.0-2.9	0.0-0.5	.02	.17			
241: Yearian-----	0-2	12-20	1.10-1.20	0.6-2.0	0.11-0.14	0.0-2.9	3.0-4.0	.15	.43	5	8	0
	2-12	18-25	1.15-1.35	0.6-2.0	0.07-0.11	0.0-2.9	1.0-3.0	.10	.32			
	12-60	10-20	1.20-1.40	0.6-2.0	0.06-0.11	0.0-2.9	0.5-1.0	.10	.32			
242: Yearian-----	0-2	12-20	1.15-1.20	0.6-2.0	0.11-0.14	0.0-2.9	3.0-4.0	.15	.43	5	8	0
	2-12	18-25	1.15-1.35	0.6-2.0	0.07-0.11	3.0-5.9	1.0-3.0	.10	.43			
	12-60	10-20	1.20-1.40	0.6-2.0	0.06-0.11	0.0-2.9	0.5-1.0	.10	.32			
243: Zeale-----	0-9	15-18	1.20-1.40	0.6-2.0	0.09-0.19	0.0-2.9	2.0-4.0	.20	.37	2	5	56
	9-60	15-25	1.40-1.55	0.6-2.0	0.05-0.12	0.0-2.9	0.5-2.0	.15	.37			
Meegero-----	0-10	12-18	1.20-1.40	0.6-2.0	0.14-0.16	0.0-2.9	2.0-4.0	.17	.20	2	5	56
	10-19	14-22	1.25-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-4.0	.17	.32			
	19-29	16-26	1.35-1.50	0.6-2.0	0.08-0.09	0.0-2.9	0.5-2.0	.10	.37			
	29-60	12-24	1.40-1.55	0.6-6.0	0.04-0.08	0.0-2.9	0.0-0.5	.05	.37			
244: Zeale-----	0-9	15-18	1.20-1.40	0.6-2.0	0.09-0.19	0.0-2.9	2.0-4.0	.20	.37	2	5	56
	9-60	15-25	1.40-1.55	0.6-2.0	0.05-0.12	0.0-2.9	0.5-2.0	.15	.37			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
244: Meezero-----	0-10	12-18	1.20-1.40	0.6-2.0	0.14-0.16	0.0-2.9	2.0-4.0	.17	.20	2	5	56
	10-19	14-22	1.25-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-4.0	.17	.32			
	19-29	16-26	1.35-1.50	0.6-2.0	0.08-0.09	0.0-2.9	0.5-2.0	.10	.37			
	29-60	12-24	1.40-1.55	0.6-6.0	0.04-0.08	0.0-2.9	0.0-0.5	.05	.37			
245: Zeale-----	0-9	15-18	1.20-1.40	0.6-2.0	0.09-0.19	0.0-2.9	2.0-4.0	.20	.37	2	5	56
	9-60	15-25	1.40-1.55	0.6-2.0	0.05-0.12	0.0-2.9	0.5-2.0	.15	.37			
Zeelnot-----	0-10	15-20	1.20-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	2	5	56
	10-24	16-22	1.30-1.45	0.6-2.0	0.08-0.09	0.0-2.9	0.5-1.0	.10	.32			
	24-32	16-22	1.40-1.55	0.6-2.0	0.06-0.08	3.0-5.9	0.0-0.5	.05	.32			
	32-60	27-39	1.50-1.65	0.2-0.6	0.04-0.06	3.0-5.9	0.0-0.5	.02	.28			
246: Zeebar-----	0-8	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	5	56
	8-22	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	22-35	20-30	1.50-1.60	0.2-0.6	0.07-0.12	0.0-2.9	0.5-1.0	.15	.32			
	35-49	25-30	1.50-1.65	0.2-0.6	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
	49-60	15-25	1.50-1.65	0.6-2.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
Nielsen-----	0-3	15-20	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.20	.37	1	5	56
	3-15	20-35	1.60-1.70	0.2-0.6	0.08-0.13	3.0-5.9	1.0-2.0	.10	.43			
	15-25	---	---	---	---	---	---	---	---			
Povey-----	0-4	8-18	1.30-1.45	0.6-2.0	0.09-0.11	0.0-2.9	4.0-10	.15	.32	5	7	38
	4-16	10-20	1.30-1.45	0.6-2.0	0.06-0.11	0.0-2.9	2.0-6.0	.15	.32			
	16-60	8-18	1.30-1.45	0.6-2.0	0.06-0.08	0.0-2.9	0.5-2.0	.15	.32			
247: Zeebar-----	0-2	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	2-9	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	9-16	20-30	1.50-1.60	0.2-0.6	0.07-0.12	0.0-2.9	0.5-1.0	.15	.32			
	16-32	25-30	1.50-1.65	0.2-0.6	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
	32-60	15-25	1.50-1.65	0.6-2.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			
Parkay-----	0-10	15-20	1.25-1.35	0.6-2.0	0.13-0.16	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	10-17	18-28	1.30-1.45	0.6-2.0	0.13-0.16	0.0-2.9	1.0-2.0	.20	.32			
	17-26	18-30	1.30-1.45	0.6-2.0	0.06-0.09	0.0-2.9	1.0-2.0	.10	.32			
	26-60	27-32	1.40-1.55	0.6-2.0	0.05-0.08	0.0-2.9	1.0-2.0	.10	.32			
248: Zeebar-----	0-5	10-16	1.40-1.55	0.6-2.0	0.12-0.14	0.0-2.9	2.0-3.0	.17	.32	5	6	48
	5-15	18-27	1.45-1.55	0.6-2.0	0.09-0.13	0.0-2.9	1.0-2.0	.17	.43			
	15-60	15-25	1.50-1.65	0.6-2.0	0.02-0.03	0.0-2.9	0.0-0.5	.10	.32			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
248: Resoot-----	0-3	16-22	1.30-1.40	0.6-2.0	0.11-0.13	0.0-2.9	2.0-3.0	.20	.37	5	6	48
	3-10	18-27	1.30-1.40	0.6-2.0	0.08-0.13	0.0-2.9	1.0-2.0	.17	.37			
	10-60	35-50	1.40-1.50	0.06-0.2	0.05-0.10	6.0-8.9	0.5-1.0	.10	.37			
249: Zeegee-----	0-11	40-55	1.15-1.30	0.2-0.6	0.15-0.17	6.0-8.9	3.0-6.0	.28	.28	3	8	0
	11-35	20-35	1.15-1.30	0.2-0.6	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43			
	35-60	5-15	1.20-1.50	0.6-2.0	0.06-0.09	0.0-2.9	0.0-0.5	.10	.32			
Ajax-----	0-4	40-55	1.15-1.30	0.06-0.2	0.15-0.17	6.0-8.9	3.0-6.0	.28	.28	5	8	0
	4-41	36-52	1.15-1.30	0.06-0.2	0.14-0.21	6.0-8.9	1.0-3.0	.28	.28			
	41-60	15-33	1.20-1.50	0.06-2.0	0.06-0.21	3.0-5.9	0.5-2.0	.37	.37			
250: Zeelnot-----	0-10	15-20	1.20-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	2	6	48
	10-24	16-22	1.30-1.45	0.6-2.0	0.08-0.09	0.0-2.9	0.5-1.0	.10	.32			
	24-32	16-22	1.40-1.55	0.6-2.0	0.06-0.08	3.0-5.9	0.0-0.5	.05	.32			
	32-60	27-39	1.50-1.65	0.2-0.6	0.04-0.06	3.0-5.9	0.0-0.5	.02	.28			
251: Zeelnot-----	0-8	15-20	1.20-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	2	6	48
	8-23	16-22	1.30-1.45	0.6-2.0	0.08-0.09	0.0-2.9	0.5-1.0	.10	.32			
	23-60	27-39	1.50-1.65	0.2-0.6	0.04-0.06	3.0-5.9	0.0-0.5	.02	.28			
252: Zeelnot-----	0-10	15-20	1.20-1.40	0.6-2.0	0.11-0.14	0.0-2.9	2.0-3.0	.17	.28	2	6	48
	10-24	16-22	1.30-1.45	0.6-2.0	0.08-0.09	0.0-2.9	0.5-1.0	.10	.32			
	24-32	16-22	1.40-1.55	0.6-2.0	0.06-0.08	3.0-5.9	0.0-0.5	.05	.32			
	32-60	27-39	1.50-1.65	0.2-0.6	0.04-0.06	3.0-5.9	0.0-0.5	.02	.28			
Meegernot-----	0-16	15-20	1.25-1.35	0.6-2.0	0.11-0.13	0.0-2.9	3.0-4.0	.15	.28	4	6	48
	16-41	20-26	1.30-1.40	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.10	.43			
	41-58	28-38	1.30-1.40	0.2-0.6	0.06-0.08	3.0-5.9	0.5-1.0	.05	.28			
	58-66	5-10	1.20-1.30	6.0-20.0	0.03-0.04	0.0-2.9	0.5-1.0	.05	.20			
Adek-----	0-2	10-18	1.25-1.40	0.6-2.0	0.08-0.09	0.0-2.9	2.0-7.0	.15	.43	2	6	48
	2-14	12-25	1.20-1.35	0.6-2.0	0.08-0.09	0.0-2.9	1.0-6.0	.10	.43			
	14-27	12-25	1.25-1.40	0.6-2.0	0.06-0.08	0.0-2.9	0.5-3.0	.05	.37			
	27-60	12-18	1.30-1.45	0.6-2.0	0.06-0.08	0.0-2.9	0.0-0.5	.05	.37			
253: Zer-----	0-5	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	5-14	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	14-26	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
	26-60	2-8	1.55-1.65	6.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
254: Zer-----	0-7	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	7-14	9-18	1.45-1.60	2.0-6.0	0.08-0.13	0.0-2.9	0.5-1.0	.15	.37			
	14-60	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
255: Zer-----	0-8	15-25	1.10-1.25	0.6-2.0	0.08-0.10	0.0-2.9	1.0-2.0	.24	.37	5	6	48
	8-43	9-18	1.30-1.50	2.0-6.0	0.04-0.07	0.0-2.9	0.0-0.5	.10	.37			
	43-60	10-16	1.35-1.50	0.6-6.0	0.07-0.09	0.0-2.9	0.0-0.5	.10	.43			
256: Zer-----	0-6	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	6-26	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	26-60	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
257: Zer-----	0-8	15-25	1.10-1.25	0.6-2.0	0.03-0.06	0.0-2.9	1.0-2.0	.20	.37	5	7	38
	8-43	9-18	1.30-1.50	2.0-6.0	0.04-0.07	0.0-2.9	0.0-0.5	.10	.37			
	43-60	10-16	1.35-1.50	0.6-6.0	0.07-0.09	0.0-2.9	0.0-0.5	.10	.43			
258: Zer-----	0-3	16-26	1.35-1.45	0.6-2.0	0.08-0.11	0.0-2.9	1.0-2.0	.15	.37	3	8	0
	3-27	12-20	1.40-1.50	0.6-2.0	0.05-0.10	0.0-2.9	0.5-1.0	.10	.43			
	27-60	0-5	1.50-1.60	6.0-20.0	0.02-0.04	0.0-2.9	0.0-0.5	.05	.43			
259: Zer-----	0-5	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	5-14	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	14-26	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
	26-60	2-8	1.55-1.65	6.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
Snowslide-----	0-7	12-18	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	0.5-1.0	.24	.37	5	6	48
	7-60	5-18	1.55-1.60	0.6-2.0	0.01-0.05	0.0-2.9	0.5-1.0	.05	.28			
260: Zer-----	0-5	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	5-14	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	14-26	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
	26-60	2-8	1.55-1.65	6.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
Snowslide-----	0-7	12-18	1.60-1.65	0.6-2.0	0.11-0.14	0.0-2.9	0.5-1.0	.24	.37	5	6	48
	7-24	11-15	1.60-1.65	0.6-2.0	0.09-0.11	0.0-2.9	0.5-1.0	.17	.37			
	24-60	5-18	1.55-1.60	0.6-2.0	0.01-0.05	0.0-2.9	0.5-1.0	.05	.28			

Table 13.--Physical Properties of the Soils--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permea- bility (K _{sat})	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								Kw	Kf	T		
	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
261: Zer-----	0-5	9-18	1.35-1.55	0.6-2.0	0.11-0.16	0.0-2.9	1.0-2.0	.24	.43	5	6	48
	5-14	9-18	1.45-1.60	0.6-6.0	0.10-0.15	0.0-2.9	0.5-1.0	.24	.43			
	14-20	5-16	1.50-1.65	2.0-6.0	0.03-0.08	0.0-2.9	0.0-0.5	.10	.28			
	20-60	2-8	1.55-1.65	6.0-20.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
Whiteknob-----	0-5	10-18	1.50-1.55	0.6-2.0	0.11-0.14	0.0-2.9	1.0-2.0	.17	.32	2	5	56
	5-10	10-18	1.50-1.60	0.6-2.0	0.11-0.17	0.0-2.9	0.5-1.0	.28	.43			
	10-18	5-10	1.40-1.50	2.0-6.0	0.05-0.10	0.0-2.9	0.5-1.0	.10	.37			
	18-60	3-8	1.40-1.50	20.0-20.0	0.03-0.05	0.0-2.9	0.5-1.0	.05	.20			
262: Simeroi-----	0-3	10-20	1.50-1.55	0.6-2.0	0.10-0.14	0.0-2.9	1.0-2.0	.17	.32	2	7	38
	3-10	10-20	1.55-1.65	0.6-2.0	0.07-0.09	0.0-2.9	1.0-2.0	.15	.43			
	10-60	10-15	1.60-1.65	0.6-6.0	0.04-0.07	0.0-2.9	0.5-1.0	.10	.20			
263: Water-----	---	---	---	---	---	---	---	---	---	---	---	---

Table 14.--Chemical Properties of the Soils

(Absence of an entry indicates that data were not estimated)

Map symbol and soil name	Depth	Cation	Soil	Calcium	Gypsum	Salinity	Sodium
		exchange capacity	reaction	carbon- ate			adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
1: Alpinepeak-----	0-3	10-20	5.6-6.5	0	0	0	0
	3-14	4-10	5.6-6.5	0	0	0	0
	14-32	4-10	5.6-6.5	0	0	0	0
	32-60	0-5	5.6-6.5	0	0	0	0
2: Aquents-----	0-2	1-3	6.1-7.3	0	0	0	0
	2-60	1-8	6.1-7.3	0	0	0	0
Riverwash-----	---	---	---	---	---	---	---
3: Arbus-----	0-3	10-20	7.9-8.4	15-40	0	0-2	2-5
	3-12	8-14	7.9-9.0	40-80	0	0-2	3-10
	12-60	2-5	7.9-9.0	50-80	0	0-2	5-30
4: Arco-----	0-13	20-25	7.9-8.4	10-25	0	2-4	0
	13-54	15-25	7.4-8.4	15-30	0	2-4	0
	54-60	15-25	7.4-8.4	0-20	0	0-2	0
5: Badland-----	---	---	---	---	---	---	---
Millhi-----	0-1	40-60	7.9-9.0	0-5	0	8-16	2-6
	1-60	40-50	7.9-9.0	5-10	1-5	8-16	15-30
6: Bartonflat-----	0-7	9-29	7.4-8.4	0	0	0	0
	7-11	3-10	7.4-8.4	5-15	0	0	0
	11-60	0-3	7.4-8.4	5-15	0	0	0
7: Bartonflat-----	0-5	5-12	7.4-8.4	0	0	0	0
	5-9	3-10	7.4-8.4	5-15	0	0	0
	9-60	0-3	7.4-8.4	5-15	0	0	0
8: Bartonhill-----	0-3	5-10	7.9-8.4	15-30	0	0	0
	3-12	5-10	7.9-8.4	30-60	0	0	0
	12-22	5-10	7.9-8.4	20-50	0	0	0
	22-46	1-5	7.9-8.4	40-60	0	0	0
	46-56	1-5	7.9-8.4	30-50	0	0	0
	56-60	1-5	7.9-8.4	30-50	0	0	0
Whitecloud-----	0-5	8-20	7.4-8.4	10-20	0	0	0
	5-19	5-15	7.4-8.4	55-80	0	0-2	0
	19-60	2-7	7.9-8.4	55-80	0	0-2	0
9: Bayhorse, north-----	0-8	10-20	6.6-7.8	0	0	0	0
	8-12	13-20	6.6-7.8	0-5	0	0	0
	12-18	20-25	6.6-7.8	0-5	0	0	0
	18-28	---	---	---	---	---	---

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
9:							
Bayhorse, south-----	0-2	10-20	6.6-7.8	0	0	0	0
	2-12	13-20	6.6-7.8	0-5	0	0	0
	12-16	---	---	---	---	---	---
10:							
Bayhorse-----	0-2	10-20	6.6-7.8	0	0	0	0
	2-12	13-20	6.6-7.8	0-5	0	0	0
	12-16	---	---	---	---	---	---
Dawtonia-----	0-3	11-20	6.6-7.8	0	0	0-2	0
	3-10	15-25	7.4-7.8	15-25	0	0-2	0
	10-60	15-20	7.4-8.4	15-30	0	0-2	0
11:							
Bigflat-----	0-10	15-30	6.6-7.8	0	0	0-2	0
	10-15	25-50	7.4-8.4	0	0	0-2	0-5
	15-49	15-40	7.4-8.4	5-10	0	0-2	0-5
	49-61	15-20	7.4-8.4	5-10	0	0-2	0-5
Dacont-----	0-8	12-20	6.6-7.3	0	0	0	0
	8-18	15-30	7.4-8.4	0-30	0	0	0-5
	18-60	10-25	7.4-8.4	5-15	0	0-2	0-5
12:							
Biglost-----	0-5	11-15	6.6-7.8	0	0	0	0
	5-23	6-10	6.6-7.8	0	0	0	0
	23-60	1-3	6.6-7.8	0	0	0	0
Copperbasin-----	0-5	9-15	7.4-7.8	0	0	0	0
	5-25	8-9	7.4-7.8	0	0	0	0
	25-33	2-8	6.6-7.8	0	0	0	0
	33-60	2-7	6.6-7.8	0	0	0	0
13:							
Bigrant, very poorly drained-----	0-5	25-35	7.4-8.4	15-30	0	4-8	0
	5-60	20-35	7.4-8.4	20-35	0	0-4	0
Bigrant, poorly drained-----	0-19	20-35	7.4-8.4	15-30	0	4-8	0-5
	19-25	20-25	7.4-8.4	20-35	0	0-4	0-5
	25-29	30-40	7.4-8.4	20-35	0	0-4	0-5
	29-60	20-25	7.4-8.4	0-5	0	0-4	0-5
14:							
Bigrant-----	0-19	15-30	7.4-8.4	15-30	0	4-8	0-5
	19-25	20-25	7.4-8.4	20-35	0	0-4	0-5
	25-29	30-40	7.4-8.4	20-35	0	0-4	0-5
	29-60	20-25	7.4-8.4	0-5	0	0-4	0-5
Thosand-----	0-5	15-25	7.4-7.8	40-70	0	4-8	0
	5-22	13-20	7.4-8.4	55-70	0	0-4	0-2
	22-39	13-20	7.4-8.4	10-15	0	0	0-2
	39-44	10-14	7.4-8.4	5-15	0	0	0-2
	44-60	1-6	7.4-8.4	5-15	0	0	0-2

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
14: Dickeypeak-----	0-3	15-20	7.9-9.0	20-40	0	8-16	15-25
	3-32	20-25	7.9-8.4	20-50	0	0-2	3-10
	32-52	10-20	7.9-8.4	20-50	0	0-2	3-5
	52-60	8-15	7.9-8.4	0-20	0	0-2	3-5
	60-65	0-4	7.9-8.4	0-10	0	0-2	0
15: Blackfoot-----	0-10	15-20	7.4-8.4	0-15	0	0	0
	10-27	15-20	7.4-8.4	0-15	0	0	0
	27-60	15-25	7.4-8.4	0-15	0	0-2	0
16: Blackfoot-----	0-10	15-20	7.4-8.4	0-15	0	0	0
	10-27	15-20	7.4-8.4	0-15	0	0	0
	27-60	15-25	7.4-8.4	0-15	0	0-2	0
Borco-----	0-2	5-15	7.4-8.4	0-10	0	0-2	0-5
	2-10	5-13	7.4-8.4	3-10	0	0-2	0-5
	10-60	1-4	7.4-8.4	0-5	0	0-2	0-5
17: Bluedome-----	0-3	8-14	7.4-9.0	20-30	0	0	0-5
	3-34	7-11	7.9-9.0	40-70	0	0-2	0-5
	34-46	---	---	---	---	---	---
	46-60	6-11	8.5-9.0	0	0	0-2	2-8
18: Bock-----	0-7	12-20	6.6-8.4	0-5	0	0	0-5
	7-60	11-12	7.4-8.4	5-25	0	0	0-5
Breitenbach-----	0-10	9-15	7.4-7.8	0	0	0	0
	10-21	7-11	7.4-8.4	5-10	0	0	0-2
	21-60	7-11	7.9-8.4	10-15	0	0	0-2
19: Bock-----	0-18	12-20	6.6-8.4	0-5	0	0	0-5
	18-48	11-12	7.4-8.4	5-25	0	0	0-5
	48-60	2-7	7.4-8.4	0-20	0	0	0-5
Bromaglin-----	0-5	10-20	6.6-7.8	0-5	0	0-2	0
	5-12	8-15	6.6-7.8	0	0	0-2	0
	12-20	8-15	6.6-7.8	15-20	0	0-2	0
	20-60	1-6	6.6-7.8	3-10	0	0-2	0
20: Bockston-----	0-8	8-20	7.4-8.4	5-15	0	0-2	0-5
	8-34	8-20	7.4-8.4	5-20	0	0-2	0-5
	34-47	8-15	7.4-8.4	20-30	0	0-2	0-5
	47-60	3-12	7.4-8.4	10-30	0	0-2	0-5
21: Brabas-----	0-3	15-20	7.4-7.8	3-10	0	0	0
	3-8	20-25	6.6-7.8	5-15	0	0	0
	8-17	30-35	7.4-8.4	5-15	0	0-2	0
	17-30	7-13	7.4-8.4	15-30	0	0-2	0
	30-60	30-35	7.4-8.4	5-20	0	0-2	0
Heathcoat-----	0-3	10-25	6.1-6.5	0	0	0	0
	3-7	20-40	6.6-7.3	0	0	0	0
	7-60	30-50	6.6-7.8	5-20	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
22: Breitenbach-----	0-5	9-15	7.4-7.8	0	0	0	0
	5-18	7-11	7.4-8.4	5-10	0	0	0-2
	18-40	7-11	7.9-8.4	10-15	0	0	0-2
	40-60	1-5	7.9-8.4	5-10	0	0	0-2
23: Breitenbach-----	0-5	9-15	7.4-7.8	0	0	0	0
	5-18	7-11	7.4-8.4	5-10	0	0	0-2
	18-40	7-11	7.9-8.4	10-15	0	0	0-2
	40-60	1-5	7.9-8.4	5-10	0	0	0-2
24: Breitenbach-----	0-5	9-15	7.4-7.8	0	0	0	0
	5-18	7-11	7.4-8.4	5-10	0	0	0-2
	18-40	7-11	7.9-8.4	10-15	0	0	0-2
	40-60	1-5	7.9-8.4	5-10	0	0	0-2
25: Bunting-----	0-10	11-25	6.6-7.8	0	0	0	0
	10-18	10-15	6.6-7.8	0-1	0	0	0
	18-22	6-10	7.4-7.8	0-2	0	0	0
	22-60	3-11	7.4-7.8	0-1	0	0	0
26: Bunting-----	0-4	11-25	6.6-7.8	0	0	0	0
	4-15	10-15	6.6-7.8	0-1	0	0	0
	15-22	6-10	7.4-7.8	0-2	0	0	0
	22-60	3-11	7.4-7.8	0-1	0	0	0
27: Bunting-----	0-10	11-25	6.6-7.8	0	0	0	0
	10-18	10-15	6.6-7.8	0-1	0	0	0
	18-22	6-10	7.4-7.8	0-2	0	0	0
	22-60	3-11	7.4-7.8	0-1	0	0	0
Moffspring-----	0-7	14-25	6.6-7.8	0	0	0	0
	7-15	20-30	6.6-7.8	0	0	0	0
	15-22	8-15	7.4-7.8	0-5	0	0	0
	22-60	4-9	7.4-7.8	0-5	0	0	0
28: Bursteadt-----	0-5	9-15	7.4-8.4	1-5	0	0-2	0
	5-20	6-15	7.4-8.4	15-25	0	0-2	0
	20-31	6-15	7.4-8.4	0-5	0	0-2	0
	31-60	1-4	7.4-8.4	0	0	0	0
Tohobit-----	0-9	15-20	7.4-8.4	15-20	0	0-2	0-5
	9-21	7-15	7.4-7.8	0-5	0	0-2	0
	21-60	1-5	7.4-7.8	0-5	0	0	0
29: Busterback-----	0-4	11-15	5.1-6.0	0	0	0	0
	4-13	11-15	5.6-6.5	0	0	0	0
	13-30	10-15	5.6-6.5	0	0	0	0
	30-60	1-5	5.6-6.5	0	0	0	0
Wiggleton-----	0-10	9-16	7.4-8.4	0	0	0	0
	10-18	6-12	7.4-7.8	0-5	0	0	0
	18-60	1-7	7.4-8.4	0-5	0	0-2	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
30:							
Calcids-----	0-3	10-15	6.6-7.8	0	0	0-2	0
	3-7	9-15	6.6-7.8	2-5	0	0-2	0
	7-25	9-15	7.4-8.4	5-15	0	0-2	0
	25-60	7-13	6.3-8.4	5-15	0	0-2	0
Badland-----	---	---	---	---	---	---	---
Xerolls-----	0-5	15-25	6.6-7.3	0	0	0	0
	5-16	10-20	6.6-7.8	0	0	0-2	0
	16-60	25-40	7.4-8.4	5-15	0	4-8	0
31:							
Calcids-----	0-2	10-15	6.6-7.8	0	0	0-2	0
	2-16	9-15	6.6-7.8	2-5	0	0-2	0
	16-37	9-15	7.4-8.4	5-15	0	0-2	0
	37-60	7-13	6.3-8.4	5-15	0	0-2	0
Rubble land-----	---	---	---	---	---	---	---
Rock outcrop-----	---	---	---	---	---	---	---
32:							
Castlepeak-----	0-2	5-13	5.1-6.0	0	0	0	0
	2-7	1-6	5.1-6.0	0	0	0	0
	7-60	1-4	5.1-6.0	0	0	0	0
Yankeefork-----	0-2	7-20	5.1-6.0	0	0	0	0
	2-28	4-15	5.6-6.5	0	0	0	0
	28-60	0-5	6.1-7.3	0	0	0	0
33:							
Chamberlain-----	0-2	15-25	6.6-7.3	0-5	0	0	0
	2-13	20-30	6.6-7.3	0-5	0	0	0
	13-26	15-25	6.6-7.8	15-40	0	0	0
	26-34	5-12	7.4-8.4	15-40	0	0-2	0
	34-60	2-6	7.4-8.4	5-15	0	0-2	0
34:							
Coalkiln-----	0-4	12-20	6.6-7.8	0-5	0	0	0
	4-17	13-25	6.6-7.8	25-40	0	0	0
	17-37	13-25	7.4-8.4	40-50	0	0	0
	37-60	6-11	7.4-8.4	40-55	0	0	0
Zeelnot-----	0-10	15-20	6.6-7.8	0	0	0	0
	10-24	10-30	7.4-8.4	30-40	0	0-2	0-5
	24-32	15-25	7.4-8.4	40-45	0	0-4	5-10
	32-60	20-35	7.4-8.4	40-50	0	0-2	0-5
35:							
Copperbasin-----	0-10	9-15	6.6-7.8	0	0	0	0
	10-27	8-9	7.4-7.8	0	0	0	0
	27-60	2-7	6.6-7.8	0	0	0	0
Redfish-----	0-4	10-17	5.6-7.3	0	0	0	0
	4-22	8-15	5.6-7.3	0	0	0	0
	22-60	1-6	5.6-7.3	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
42:							
Cryepts-----	0-3	11-20	5.6-6.0	0-15	0	0	0
	3-8	7-15	5.1-6.0	0-15	0	0	0
	8-60	4-12	5.1-6.0	0-15	0	0	0
Rubble land-----	---	---	---	---	---	---	---
Rock outcrop-----	---	---	---	---	---	---	---
43:							
Custco-----	0-10	10-20	6.6-7.3	0	0	0	0
	10-21	13-20	6.6-8.4	0	0	0	0
	21-60	5-10	7.4-8.4	15-25	0	0-2	0
44:							
Dacont-----	0-4	10-20	6.6-7.3	0	0	0	0
	4-10	15-30	7.4-8.4	0-30	0	0	0-5
	10-18	10-25	7.4-8.4	15-30	0	0-2	0-5
	18-60	10-25	7.4-8.4	5-15	0	0-2	0-5
Custco-----	0-4	10-20	6.6-7.3	0	0	0	0
	4-17	13-20	6.6-8.4	0	0	0	0
	17-60	5-10	7.4-8.4	15-25	0	0-2	0
45:							
Dacont-----	0-3	11-20	6.6-7.3	0	0	0	0
	3-28	15-30	7.4-8.4	0-30	0	0	0-5
	28-41	10-25	7.4-8.4	15-30	0	0-2	0-5
	41-60	10-25	7.4-8.4	5-15	0	0-2	0-5
Resoot-----	0-11	20-25	6.1-6.5	0-5	0	0	0
	11-60	30-45	6.6-7.8	10-20	0	0	0
Nielsen-----	0-3	15-20	6.6-7.3	0	0	0	0
	3-15	15-25	6.6-7.3	0	0	0	0
	15-25	---	---	---	---	---	---
46:							
Dacont-----	0-2	11-20	6.6-7.3	0	0	0	0
	2-20	15-30	7.4-8.4	0-30	0	0	0-5
	20-60	10-25	7.4-8.4	15-30	0	0-2	0-5
Zeebar-----	0-3	11-15	6.1-7.3	0	0	0	0
	3-13	8-14	6.1-7.3	0	0	0	0
	13-19	15-20	6.1-7.3	0	0	0	0
	19-29	15-20	6.1-7.3	0	0	0	0
	29-60	11-15	6.1-7.8	0	0	0	0
47:							
Darlington-----	0-7	13-20	6.6-7.3	0	0	0	0
	7-33	13-20	6.6-7.8	0	0	0	0
	33-60	0-4	6.6-7.8	1-10	0	0	0
Lesbut-----	0-4	9-15	6.6-7.3	0	0	0	0
	4-18	4-12	6.6-7.8	0-5	0	0	0
	18-60	1-4	7.4-7.8	1-5	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
54:							
Dawtonia-----	0-4	11-20	6.6-7.3	0	0	0-2	0
	4-12	15-25	7.4-7.8	15-25	0	0-2	0
	12-24	15-20	7.4-8.4	15-30	0	0-2	0
	24-60	6-10	7.4-8.4	15-20	0	0-2	0
Custco-----	0-4	10-20	6.6-7.3	0	0	0	0
	4-17	13-20	6.6-8.4	0	0	0	0
	17-60	5-10	7.4-8.4	15-25	0	0-2	0
55:							
Dawtonia-----	0-4	11-20	6.6-7.8	0	0	0-2	0
	4-12	15-25	7.4-7.8	15-25	0	0-2	0
	12-24	15-20	7.4-8.4	15-30	0	0-2	0
	24-60	6-10	7.4-8.4	15-20	0	0-2	0
Dacont-----	0-3	12-20	6.6-7.3	0	0	0	0
	3-28	15-30	7.4-8.4	0-30	0	0	0-5
	28-41	10-25	7.4-8.4	15-30	0	0-2	0-5
	41-60	10-25	7.4-8.4	5-15	0	0-2	0-5
56:							
Derwell-----	0-2	5-12	7.4-7.8	5-15	0	0-4	0
	2-15	5-12	7.4-8.4	20-40	0	0-4	0-5
	15-45	5-12	6.6-7.8	20-40	0	0-4	0
	45-60	0-4	7.4-7.8	10-20	0	0-4	0
Whitekno-----	0-4	9-10	7.4-9.0	10-20	0	0-2	0-5
	4-11	5-9	7.9-9.0	15-30	0	0-2	0-5
	11-60	3-7	7.9-9.0	15-35	0	0-2	0-5
57:							
Derwell-----	0-2	5-12	7.4-7.8	5-15	0	0-4	0
	2-15	5-12	7.4-8.4	20-40	0	0-4	0-5
	15-45	5-12	6.6-7.8	20-40	0	0-4	0
	45-60	0-4	7.4-7.8	10-20	0	0-4	0
Zer-----	0-5	8-15	7.4-8.4	0-5	0	0	0
	5-14	7-15	7.4-9.0	15-25	0	0-2	0-5
	14-26	4-10	7.9-9.0	30-40	0	0-2	0-8
	26-60	2-6	7.9-9.0	15-30	0	0-2	0-8
Packmo-----	0-3	11-20	6.6-7.8	0	0	0	0
	3-10	9-15	6.6-7.8	0	0	0	0
	10-40	8-15	7.4-8.4	5-15	0	0-2	0
	40-60	3-8	7.4-9.0	5-15	0	0-2	0-5
58:							
Dickeypeak-----	0-3	15-20	7.9-9.0	20-40	0	8-16	15-25
	3-32	20-25	7.9-8.4	20-50	0	0-2	3-10
	32-52	10-20	7.9-8.4	20-50	0	0-2	3-5
	52-60	8-15	7.9-8.4	0-20	0	0-2	3-5
	60-65	0-4	7.9-8.4	0-10	0	0-2	0
Bigrant-----	0-19	15-30	7.4-8.4	15-30	0	4-8	0-5
	19-25	20-25	7.4-8.4	20-35	0	0-4	0-5
	25-29	30-40	7.4-8.4	20-35	0	0-4	0-5
	29-60	20-25	7.4-8.4	0-5	0	0-4	0-5

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
59:							
Donkehill-----	0-3	9-20	7.4-7.8	0	0	0	0
	3-13	8-20	7.4-7.8	0-10	0	0	0
	13-16	3-9	7.4-8.4	5-15	0	0-2	0
	16-20	---	---	---	---	---	---
60:							
Donkehill-----	0-3	9-20	7.4-7.8	0	0	0	0
	3-13	8-20	7.4-7.8	0-10	0	0	0
	13-16	3-9	7.4-8.4	5-15	0	0-2	0
	16-20	---	---	---	---	---	---
Zeebar-----	0-8	11-15	6.1-7.3	0	0	0	0
	8-22	8-14	6.1-7.3	0	0	0	0
	22-35	15-20	6.1-7.3	0	0	0	0
	35-49	15-20	6.1-7.3	0	0	0	0
	49-60	11-15	6.1-7.8	0	0	0	0
61:							
Donkehill-----	0-3	9-20	7.4-7.8	0	0	0	0
	3-13	8-20	7.4-7.8	0-10	0	0	0
	13-16	3-9	7.4-8.4	5-15	0	0-2	0
	16-20	---	---	---	---	---	---
Zeebar-----	0-3	11-15	6.1-7.3	0	0	0	0
	3-13	8-14	6.1-7.3	0	0	0	0
	13-19	15-20	6.1-7.3	0	0	0	0
	19-29	15-20	6.1-7.3	0	0	0	0
	29-60	11-15	6.1-7.8	0	0	0	0
62:							
Dumps, mine-----	---	---	---	---	---	---	---
63:							
Escarlo-----	0-3	13-20	7.4-7.8	5-15	0	0	0
	3-11	12-20	6.6-7.8	10-40	0	0	0
	11-32	15-25	7.4-8.4	40-55	0	0-2	0-5
	32-48	15-25	7.4-8.4	50-85	0	4-8	5-10
	48-60	20-25	7.4-8.4	50-65	0	4-8	5-10
Heathcoat-----	0-2	10-25	6.1-6.5	0	0	0	0
	2-10	20-40	6.6-7.3	0	0	0	0
	10-47	30-50	6.6-7.8	5-20	0	0	0
	47-60	25-50	7.4-8.4	15-20	0	0-2	0
64:							
Escarlo-----	0-11	13-20	7.4-7.8	5-15	0	0	0
	11-47	15-25	7.4-8.4	40-55	0	0-2	0-5
	47-60	15-25	7.4-8.4	50-85	0	4-8	5-10
Heathcoat-----	0-2	10-25	6.1-6.5	0	0	0	0
	2-10	20-40	6.6-7.3	0	0	0	0
	10-47	30-50	6.6-7.8	5-20	0	0	0
	47-60	25-50	7.4-8.4	15-20	0	0-2	0
65:							
Ezbin-----	0-11	14-25	6.6-7.3	0	0	0	0
	11-30	20-25	6.6-7.3	0	0	0	0
	30-50	15-25	6.6-7.3	0	0	0	0
	50-60	14-18	6.6-7.3	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
65:							
Zeebar-----	0-8	11-15	6.1-7.3	0	0	0	0
	8-22	8-14	6.1-7.3	0	0	0	0
	22-35	15-20	6.1-7.3	0	0	0	0
	35-49	15-20	6.1-7.3	0	0	0	0
	49-60	11-15	6.1-7.8	0	0	0	0
Nielsen-----	0-3	15-20	6.6-7.3	0	0	0	0
	3-15	15-25	6.6-7.3	0	0	0	0
	15-25	---	---	---	---	---	---
66:							
Fandow-----	0-3	10-20	7.4-8.4	10-30	0	0-2	0
	3-12	10-20	7.9-8.4	40-65	0	0-2	0
	12-14	---	---	---	---	---	---
	14-60	1-5	7.9-9.6	30-50	0	0-2	13-30
67:							
Fandow-----	0-3	10-20	7.4-8.4	10-30	0	0-2	0
	3-12	10-20	7.9-8.4	40-65	0	0-2	0
	12-14	---	---	---	---	---	---
	14-60	1-5	7.9-9.6	30-50	0	0-2	13-30
Arbus-----	0-4	10-20	7.9-8.4	15-40	0	0-2	2-5
	4-16	8-14	7.9-9.0	40-80	0	0-2	3-10
	16-20	8-14	8.5-9.0	50-80	0	0-2	5-13
	20-60	2-5	7.9-9.0	50-80	0	0-2	5-30
68:							
Farvant-----	0-2	10-20	7.4-8.4	5-15	0	0-4	0
	2-7	8-15	7.9-8.4	15-30	0	4-8	0
	7-11	8-15	7.9-8.4	15-40	0	4-8	0
	11-15	---	---	---	---	---	---
Badland-----	---	---	---	---	---	---	---
Gradco-----	0-3	10-15	7.4-7.8	0-5	0	0-2	0
	3-14	8-15	7.4-8.4	10-15	0	0-2	0
	14-29	8-15	7.9-9.0	10-15	0-5	0-4	0-5
	29-33	---	---	---	---	---	---
69:							
Farvant-----	0-3	10-20	7.4-8.4	5-15	0	0-4	0
	3-15	8-15	7.9-8.4	15-30	0	4-8	0
	15-19	---	---	---	---	---	---
Sactus-----	0-2	8-15	7.9-8.4	0-5	0	0-2	0
	2-9	8-15	7.9-8.4	0-5	0	0-4	0
	9-19	---	---	---	---	---	---
Dawtonia-----	0-5	11-20	6.6-7.3	0	0	0-2	0
	5-24	15-25	7.4-7.8	15-25	0	0-2	0
	24-60	6-10	7.4-8.4	15-20	0	0-2	0
70:							
Fezip-----	0-6	8-13	6.1-7.3	0	0	0	0
	6-16	5-12	6.1-7.3	0	0	0	0
	16-26	8-13	6.1-7.3	0	0	0	0
	26-60	0-5	6.1-7.3	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
70:							
Lemroi-----	0-8	13-25	7.9-8.4	0-10	0	0	0-5
	8-15	5-20	7.4-7.8	5-25	0	0	0
	15-23	3-15	7.4-8.4	5-25	0	0	0-5
	23-60	1-9	7.4-8.4	5-15	0	0	0-5
Redfish-----	0-5	10-17	6.1-7.3	0	0	0	0
	5-10	8-15	5.6-7.3	0	0	0	0
	10-60	1-6	5.6-7.3	0	0	0	0
71:							
Fezip-----	0-6	8-13	6.1-7.3	0	0	0	0
	6-16	5-12	6.1-7.3	0	0	0	0
	16-26	8-13	6.1-7.3	0	0	0	0
	26-60	0-5	6.1-7.3	0	0	0	0
Redfish-----	0-5	10-17	6.1-7.3	0	0	0	0
	5-10	8-15	5.6-7.3	0	0	0	0
	10-60	1-6	5.6-7.3	0	0	0	0
Copperbasin-----	0-10	9-15	7.4-7.8	0	0	0	0
	10-60	2-7	6.6-7.8	0	0	0	0
72:							
Firebox-----	0-3	10-15	6.1-7.3	0	0	0	0
	3-15	8-10	6.6-7.3	0	0	0	0
	15-60	0-5	6.6-7.8	0-5	0	0	0
73:							
Firebox-----	0-10	11-20	6.6-7.3	0	0	0	0
	10-16	9-15	6.6-7.3	0	0	0	0
	16-60	0-5	6.6-7.8	0-5	0	0	0
74:							
Frailton-----	0-2	9-15	7.4-7.8	0-5	0	0	0
	2-10	8-15	7.4-8.4	15-30	0	0-2	0
	10-14	9-15	7.4-8.4	15-30	0	0-2	0
	14-18	---	---	---	---	---	---
Dawtonia-----	0-4	11-20	6.6-7.3	0	0	0-2	0
	4-12	15-25	7.4-7.8	15-25	0	0-2	0
	12-24	15-20	7.4-8.4	15-30	0	0-2	0
	24-60	6-10	7.4-8.4	15-20	0	0-2	0
75:							
Frailton-----	0-1	10-20	7.4-7.8	0-5	0	0	0
	1-11	8-15	7.4-8.4	15-30	0	0-2	0
	11-15	---	---	---	---	---	---
Gradco-----	0-4	10-15	7.4-7.8	0-5	0	0-2	0
	4-9	8-15	7.4-8.4	10-15	0	0-2	0
	9-30	8-15	7.9-9.0	10-15	0-5	0-4	0-5
	30-34	---	---	---	---	---	---
76:							
Friedman-----	0-8	15-25	6.1-6.5	0	0	0	0
	8-13	15-25	6.1-6.5	0	0	0	0
	13-60	45-60	6.6-7.3	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
76:							
Reck-----	0-3	20-30	6.6-7.3	0	0	0	0
	3-11	20-25	6.6-7.3	0	0	0	0
	11-60	30-40	6.6-7.3	0	0	0	0
Goldhill-----	0-5	20-25	6.6-7.3	0	0	0	0
	5-58	30-50	6.6-8.4	0-25	0	0	0-5
	58-60	20-30	7.9-8.4	15-50	0	0-4	0-5
77:							
Gaciba-----	0-4	11-20	7.4-7.8	0	0	0	0
	4-12	12-20	6.6-7.8	0-5	0	0	0
	12-16	---	---	---	---	---	---
Cronks-----	0-10	15-25	6.1-6.5	0	0	0	0
	10-35	35-45	6.6-7.8	0-5	0	0	0
	35-55	15-25	7.4-8.4	15-25	0	0-2	0
	55-70	15-25	7.4-8.4	0-10	0	0-2	0
78:							
Gaciba-----	0-4	11-20	7.4-7.8	0	0	0	0
	4-15	12-20	6.6-7.8	0-5	0	0	0
	15-19	---	---	---	---	---	---
Dacont-----	0-3	12-20	6.6-7.3	0	0	0	0
	3-28	15-30	7.4-8.4	0-30	0	0	0-5
	28-41	10-25	7.4-8.4	15-30	0	0-2	0-5
	41-60	10-25	7.4-8.4	5-15	0	0-2	0-5
79:							
Gany-----	0-6	12-20	7.4-7.8	0	0	0-2	0
	6-21	10-15	7.4-8.4	15-30	0	0-2	0
	21-60	7-11	7.9-8.4	25-40	0	0-2	0
80:							
Geemore-----	0-3	14-20	6.6-7.3	0	0	0	0
	3-39	25-30	6.6-7.8	0-25	0	0	0
	39-45	20-25	6.6-7.3	15-25	0	0	0
	45-60	15-20	6.6-7.3	15-25	0	0-4	0
81:							
Germer-----	0-3	14-20	7.4-7.8	0	0	0-4	0
	3-9	25-30	6.6-7.3	5-15	0	0-4	0
	9-21	13-20	7.4-9.0	15-30	0	4-8	2-13
	21-60	3-8	7.9-8.4	15-30	0-10	8-16	2-13
Dawtonia-----	0-3	11-20	6.6-7.8	0	0	0-2	0
	3-10	15-25	7.4-7.8	15-25	0	0-2	0
	10-60	15-20	7.4-8.4	15-30	0	0-2	0
82:							
Goldaho-----	0-6	13-20	7.4-7.8	0	0	0-2	0
	6-17	35-50	8.5-9.0	0-30	0	0-4	5-13
	17-37	35-50	7.9-9.0	20-40	0	0-4	5-13
	37-61	30-45	8.5-9.0	15-30	0	4-8	5-13
Zer-----	0-2	8-15	7.4-8.4	0-5	0	0	0
	2-5	7-15	7.4-9.0	5-15	0	0-2	0-5
	5-14	7-15	7.9-9.0	20-35	0	0-2	0-8
	14-26	4-10	7.9-9.0	30-40	0	0-2	0-8
	26-60	2-6	7.9-9.0	15-30	0	0-2	0-8

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
83:							
Goldhill-----	0-3	20-25	6.6-7.3	0	0	0	0
	3-7	20-25	6.6-7.3	0	0	0	0
	7-40	30-50	6.6-8.4	0-25	0	0	0-5
	40-60	20-30	7.9-8.4	15-50	0	0-4	0-5
Zeebar-----	0-3	11-15	6.1-7.3	0	0	0	0
	3-21	8-14	6.1-7.3	0	0	0	0
	21-60	15-20	6.1-7.3	0	0	0	0
84:							
Goosebury-----	0-2	5-20	7.4-7.8	0-15	0	0-2	0
	2-11	5-20	7.4-8.4	15-35	0	0-2	0
	11-41	5-15	7.4-8.4	15-40	0	0-2	0
	41-60	3-10	7.4-8.4	15-35	0	0-2	0
85:							
Goosebury-----	0-3	5-20	7.4-7.8	0-15	0	0-2	0
	3-22	5-20	7.4-8.4	15-35	0	0-2	0
	22-60	5-15	7.4-8.4	15-40	0	0-2	0
86:							
Goosebury-----	0-11	5-15	7.4-8.4	0-15	0	0-2	0
	11-22	5-20	7.4-8.4	15-35	0	0-2	0
	22-60	5-15	7.4-8.4	15-40	0	0-2	0
Windcoat-----	0-5	8-20	7.4-8.4	25-35	0	0-2	0-5
	5-15	8-20	7.9-9.0	45-60	0	4-8	5-10
	15-18	---	---	---	---	---	---
	18-60	3-7	8.5-9.0	55-70	0	4-8	5-10
87:							
Gradco-----	0-2	10-15	7.4-7.8	0-5	0	0-2	0
	2-7	8-15	7.4-8.4	10-15	0	0-2	0
	7-33	8-15	7.9-9.0	10-15	0-5	0-4	0-5
	33-37	---	---	---	---	---	---
Farvant-----	0-3	10-20	7.4-8.4	5-15	0	0-4	0
	3-8	8-15	7.9-8.4	15-30	0	4-8	0
	8-14	8-15	7.9-8.4	15-40	0	4-8	0
	14-18	---	---	---	---	---	---
88:							
Gradco-----	0-2	10-15	7.4-7.8	0-5	0	0-2	0
	2-7	8-15	7.4-8.4	10-15	0	0-2	0
	7-33	8-15	7.9-9.0	10-15	0-5	0-4	0-5
	33-37	---	---	---	---	---	---
Farvant-----	0-3	10-20	7.4-8.4	5-15	0	0-4	0
	3-8	8-15	7.9-8.4	15-30	0	4-8	0
	8-14	8-15	7.9-8.4	15-40	0	4-8	0
	14-18	---	---	---	---	---	---
89:							
Hagenbarth-----	0-11	15-25	6.6-7.8	0	0	0	0
	11-22	20-25	6.6-7.8	0	0	0	0
	22-60	15-20	6.6-7.8	0-5	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
89:							
Brabas-----	0-3	15-20	7.4-7.8	3-10	0	0	0
	3-8	20-25	6.6-7.8	5-15	0	0	0
	8-17	30-35	7.4-8.4	5-15	0	0-2	0
	17-30	7-13	7.4-8.4	15-30	0	0-2	0
	30-60	30-35	7.4-8.4	5-20	0	0-2	0
90:							
Heathcoat-----	0-2	10-25	6.1-6.5	0	0	0	0
	2-10	20-40	6.6-7.3	0	0	0	0
	10-47	30-50	6.6-7.8	5-20	0	0	0
	47-60	25-50	7.4-8.4	15-20	0	0-2	0
91:							
Heathcoat-----	0-2	10-25	6.1-6.5	0	0	0	0
	2-10	20-40	6.6-7.3	0	0	0	0
	10-47	30-50	6.6-7.8	5-20	0	0	0
	47-60	25-50	7.4-8.4	15-20	0	0-2	0
Goldhill-----	0-6	15-20	6.6-7.3	0	0	0	0
	6-11	20-30	6.6-7.8	0	0	0-2	0
	11-40	30-40	7.9-9.0	0-40	0	0-4	2-10
	40-60	15-20	7.9-9.0	45-50	0	0-4	2-10
92:							
Heathcoat-----	0-6	10-25	6.1-6.5	0	0	0	0
	6-10	20-40	6.6-7.3	0	0	0	0
	10-23	30-50	6.6-7.8	5-20	0	0	0
	23-60	25-50	7.4-8.4	15-20	0	0-2	0
Soen-----	0-6	15-20	6.6-7.8	0	0	0	0
	6-30	25-35	6.6-8.4	0-15	0	0	0
	30-60	20-25	7.4-9.0	15-25	0	0-8	0-5
93:							
Howcan-----	0-3	9-20	6.6-7.8	0	0	0	0
	3-18	10-20	6.6-7.8	0	0	0	0
	18-44	9-20	6.6-7.8	0	0	0	0
	44-64	5-15	6.6-7.8	0-2	0	0-2	0
Hagenbarth-----	0-11	15-25	6.6-7.8	0	0	0	0
	11-22	20-25	6.6-7.8	0	0	0	0
	22-60	15-20	6.6-7.8	0-5	0	0	0
Hutchley-----	0-4	10-20	6.6-7.8	0	0	0	0
	4-16	10-25	6.6-7.8	0	0	0	0
	16-20	---	---	---	---	---	---
94:							
Hutchley-----	0-1	10-20	6.6-7.8	0	0	0	0
	1-3	10-20	6.6-7.8	0	0	0	0
	3-13	10-25	6.6-7.8	0	0	0	0
	13-17	---	---	---	---	---	---
Nurkey-----	0-1	13-20	6.6-7.3	0	0	0	0
	1-5	12-15	6.6-7.8	0	0	0	0
	5-54	15-20	7.4-8.4	10-15	0	0-2	0
	54-60	6-10	7.4-8.4	15-35	0	0-2	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
95:							
Ike-----	0-3	7-20	7.4-8.4	25-35	0	0-2	0
	3-12	5-20	7.9-9.0	40-60	0	0-2	0-5
	12-17	5-20	7.9-9.0	40-60	0	0-2	0-5
	17-21	---	---	---	---	---	---
Rock outcrop-----	---	---	---	---	---	---	---
Jimbee-----	0-6	10-20	7.9-8.4	25-55	0	0	0
	6-16	10-15	7.9-9.0	40-55	0	0-2	0-5
	16-20	---	---	---	---	---	---
96:							
Inferno-----	0-7	20-30	6.6-7.8	0	0	0	0
	7-12	20-35	7.4-8.4	0	0	0-2	0-5
	12-36	25-40	7.4-8.4	0	0	0-2	0-5
	36-54	25-40	7.4-8.4	5-10	0	0-2	0-5
	54-60	25-40	7.4-8.4	5-15	0	0-2	0-5
Grouseville-----	0-7	20-25	6.6-7.8	0	0	0	0
	7-18	30-35	7.4-7.8	0-5	0	0	0
	18-60	35-45	7.4-8.4	0-5	0	0-2	0
97:							
Jimbee-----	0-6	10-20	7.9-8.4	25-55	0	0	0
	6-16	10-15	7.9-9.0	40-55	0	0-2	0-5
	16-20	---	---	---	---	---	---
Rock outcrop-----	---	---	---	---	---	---	---
Ike-----	0-3	7-20	7.4-8.4	25-35	0	0-2	0
	3-12	5-20	7.9-9.0	40-60	0	0-2	0-5
	12-17	5-20	7.9-9.0	40-60	0	0-2	0-5
	17-21	---	---	---	---	---	---
98:							
Justesen-----	0-4	10-25	6.6-7.8	0	0	0	0
	4-40	20-25	6.6-8.4	0-20	0	0	0
	40-60	13-25	7.4-9.0	15-25	0	0-2	0-5
Drage-----	0-3	10-20	6.6-7.8	0	0	0	0
	3-10	10-20	6.6-7.8	0	0	0	0
	10-40	15-20	6.6-7.8	0	0	0	0
	40-60	5-20	7.4-8.4	2-15	0	0	0
99:							
Kadletz-----	0-2	7-15	7.4-7.8	0	0	0-2	0
	2-5	7-15	7.4-7.8	0	0	0-2	0
	5-8	5-10	6.6-7.3	0	0	0	0
	8-12	1-2	6.6-7.3	0	0	0	0
	12-60	1-2	7.9-9.0	0-5	0	0-4	0-5
100:							
Kehar-----	0-7	15-30	6.6-7.3	0	0	0-2	0
	7-31	30-50	7.4-8.4	0-20	0	0-4	0
	31-60	25-45	7.9-9.0	15-20	0-5	2-4	0-5

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
101:							
Kehar-----	0-4	15-30	6.6-7.3	0	0	0-2	0
	4-34	30-50	7.4-8.4	0-20	0	0-4	0
	34-45	15-30	7.9-8.4	15-20	0	2-4	0
	45-60	25-45	7.9-9.0	15-20	0-5	2-4	0-5
Kehar, eroded-----	0-16	35-55	7.4-8.4	0	0	0-4	0
	16-60	30-50	7.4-8.4	15-20	0	0-4	0
102:							
Ketchum-----	0-10	8-15	6.1-6.5	0	0	0	0
	10-36	8-15	6.1-6.5	0	0	0	0
	36-60	8-15	6.1-6.5	0	0	0	0
103:							
Ketchum, cold-----	0-2	8-15	5.6-6.0	0	0	0	0
	2-53	6-15	5.1-6.5	0	0	0	0
	53-60	6-15	5.1-6.5	0	0	0	0
Ketchum-----	0-3	8-15	6.1-6.5	0	0	0	0
	3-24	8-15	6.1-6.5	0	0	0	0
	24-60	8-15	6.1-6.5	0	0	0	0
104:							
Klug-----	0-10	12-20	6.6-7.3	0	0	0	0
	10-27	10-15	6.6-7.8	0	0	0	0
	27-60	10-15	6.6-7.8	0	0	0	0
105:							
Klug-----	0-4	12-20	6.6-7.3	0	0	0	0
	4-20	10-15	6.6-7.8	0	0	0	0
	20-60	10-15	6.6-7.8	0	0	0	0
Gaciba-----	0-3	11-20	7.4-7.8	0	0	0	0
	3-18	12-20	6.6-7.8	0-5	0	0	0
	18-22	---	---	---	---	---	---
Dacont-----	0-3	12-20	6.6-7.3	0	0	0	0
	3-28	15-30	7.4-8.4	0-30	0	0	0-5
	28-41	10-25	7.4-8.4	15-30	0	0-2	0-5
	41-60	10-25	7.4-8.4	5-15	0	0-2	0-5
106:							
Klug-----	0-4	12-20	6.6-7.3	0	0	0	0
	4-20	10-15	6.6-7.8	0	0	0	0
	20-60	10-15	6.6-7.8	0	0	0	0
Povey-----	0-5	12-30	6.1-7.3	0	0	0	0
	5-25	10-25	6.1-7.3	0	0	0	0
	25-60	4-15	6.1-7.3	0	0	0	0
107:							
Klug-----	0-4	12-20	6.6-7.3	0	0	0	0
	4-10	10-15	6.6-7.8	0	0	0	0
	10-60	10-15	6.6-7.8	0	0	0	0
Povey-----	0-5	12-30	6.1-7.3	0	0	0	0
	5-25	10-25	6.1-7.3	0	0	0	0
	25-60	4-15	6.1-7.3	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
108:							
Klug-----	0-4	12-20	6.6-7.3	0	0	0	0
	4-10	10-15	6.6-7.8	0	0	0	0
	10-60	10-15	6.6-7.8	0	0	0	0
Zeebar-----	0-4	11-15	6.1-7.3	0	0	0	0
	4-30	8-14	6.1-7.3	0	0	0	0
	30-60	15-20	6.1-7.3	0	0	0	0
109:							
Lacrol-----	0-6	10-20	6.6-7.3	0	0	0	0
	6-60	15-35	7.4-9.0	0-10	0	2-8	0-5
Friedman-----	0-4	15-25	6.1-6.5	0	0	0	0
	4-19	15-25	6.1-6.5	0	0	0	0
	19-60	25-35	6.1-7.3	0	0	0	0
110:							
Lag-----	0-2	13-20	6.6-7.3	0	0	0	0
	2-44	9-15	6.6-7.3	0	0	0	0
	44-60	9-15	6.6-7.3	0	0	0	0
111:							
Lag-----	0-10	13-20	6.6-7.3	0	0	0	0
	10-35	9-15	6.6-7.3	0	0	0	0
	35-61	9-15	6.6-7.3	0	0	0	0
112:							
Lag-----	0-2	13-20	6.6-7.3	0	0	0	0
	2-44	9-15	6.6-7.3	0	0	0	0
	44-60	9-15	6.6-7.3	0	0	0	0
Klug-----	0-4	12-20	6.6-7.3	0	0	0	0
	4-20	10-15	6.6-7.8	0	0	0	0
	20-60	10-15	6.6-7.8	0	0	0	0
113:							
Langer-----	0-9	8-15	6.1-6.5	0	0	0	0
	9-13	6-12	5.6-6.5	0	0	0	0
	13-60	1-4	6.1-6.5	0	0	0	0
114:							
Leadore-----	0-3	12-15	6.6-7.3	0	0	0	0
	3-16	10-15	6.6-7.8	0-5	0	0	0
	16-60	1-7	7.9-8.4	10-25	0	0-2	0
115:							
Leatherman-----	0-11	10-20	7.4-8.4	45-75	0	0-2	0
	11-16	---	---	---	---	---	---
	16-60	1-5	7.9-9.0	40-60	0	0-2	0-5
Arbus-----	0-3	10-20	7.9-8.4	15-40	0	0-2	2-5
	3-12	8-14	7.9-9.0	40-80	0	0-2	3-10
	12-60	2-5	7.9-9.0	50-80	0	0-2	5-30
116:							
Leatherman-----	0-11	10-20	7.4-8.4	45-75	0	0-2	0
	11-16	---	---	---	---	---	---
	16-60	1-5	7.9-9.0	40-60	0	0-2	0-5

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
116:							
Bluedome-----	0-3	7-15	7.9-9.0	20-30	0	0	0-5
	3-22	7-11	7.9-9.0	40-70	0	0-2	0-5
	22-30	---	---	---	---	---	---
	30-60	6-11	8.5-9.0	0	0	0-2	2-8
117:							
Lemco-----	0-11	10-20	6.6-7.3	0	0	0	0
	11-36	20-35	6.6-7.3	0	0	0	0
	36-48	15-25	6.6-7.3	0	0	0	0
	48-61	10-15	6.6-7.3	0	0	0	0
Friedman-----	0-2	15-25	6.1-6.5	0	0	0	0
	2-18	15-25	6.1-6.5	0	0	0	0
	18-37	25-35	6.1-7.3	0	0	0	0
	37-60	45-60	6.6-7.3	0	0	0	0
118:							
Lemhi-----	0-13	15-30	7.4-8.4	2-10	0	0-2	0-5
	13-21	15-30	6.6-7.8	0	0	0-2	0
	21-24	5-12	6.6-7.3	0	0	0-2	0
	24-60	2-8	6.6-7.3	0	0	0-2	0
Copperbasin-----	0-6	9-15	6.6-7.8	0	0	0	0
	6-14	8-9	7.4-7.8	0	0	0	0
	14-27	2-8	6.6-7.8	0	0	0	0
	27-60	2-7	6.6-7.8	0	0	0	0
Lilylake-----	0-10	40-120	5.6-6.5	0	0	0	0
	10-60	0-5	6.1-7.3	0	0	0	0
119:							
Lemroi-----	0-8	13-25	7.9-8.4	0-10	0	0	0-5
	8-15	5-20	7.4-7.8	5-25	0	0	0
	15-23	3-15	7.4-8.4	5-25	0	0	0-5
	23-60	1-9	7.4-8.4	5-15	0	0	0-5
Leecreek-----	0-3	14-25	7.4-8.4	15-30	0	0	0
	3-18	5-25	7.4-8.4	20-35	0	0	0
	18-60	4-9	7.4-8.4	20-35	0	0	0
120:							
Lemroi-----	0-8	13-25	7.9-8.4	0-10	0	0	0-5
	8-15	5-20	7.4-7.8	5-25	0	0	0
	15-23	3-15	7.4-8.4	5-25	0	0	0-5
	23-60	1-9	7.4-8.4	5-15	0	0	0-5
Leecreek-----	0-3	14-25	7.4-8.4	15-30	0	0	0
	3-18	5-25	7.4-8.4	20-35	0	0	0
	18-60	4-9	7.4-8.4	20-35	0	0	0
Grandjean-----	0-6	100-120	5.6-7.3	0	0	0	0
	6-27	135-170	5.1-6.5	0	0	0	0
	27-60	5-10	6.1-7.3	0	0	0	0
121:							
Lesbut-----	0-4	9-15	6.6-7.3	0	0	0	0
	4-18	4-12	6.6-7.8	0-5	0	0	0
	18-60	1-4	7.4-7.8	1-5	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
122:							
Lilylake-----	0-12	40-120	5.6-6.5	0	0	0	0
	12-15	4-9	6.1-7.3	0	0	0	0
	15-60	0-5	6.1-7.3	0	0	0	0
Grandjean-----	0-6	100-120	5.6-7.3	0	0	0	0
	6-27	135-170	5.1-6.5	0	0	0	0
	27-60	5-10	6.1-7.3	0	0	0	0
123:							
Mahaffey-----	0-12	15-25	6.1-7.3	0	0	0-2	0
	12-23	10-16	6.1-7.3	0	0	0-2	0
	23-34	4-11	6.1-7.3	0	0	0-2	0
	34-61	4-8	6.1-7.3	0	0	0-2	0
Copperbasin-----	0-7	9-15	6.6-7.8	0	0	0	0
	7-14	8-9	7.4-7.8	0	0	0	0
	14-60	2-7	6.6-7.8	0	0	0	0
Wiskisprings-----	0-8	15-25	6.6-7.3	0	0	0	0
	8-49	13-20	6.6-7.8	0	0	0	0
	49-54	11-20	6.6-7.8	0	0	0	0
	54-60	1-7	6.6-7.8	0	0	0	0
124:							
Meegernot-----	0-16	15-20	6.6-7.8	0-5	0	0-2	0
	16-41	15-20	7.4-7.8	15-35	0	0-2	0
	41-58	20-30	7.4-7.8	10-15	0	0-2	0
	58-66	4-8	7.9-8.4	10-15	0	0-2	0
125:							
Meegero-----	0-10	11-15	6.6-7.3	0-10	0	0	0
	10-19	12-20	6.6-7.3	20-30	0	0	0
	19-29	15-20	7.4-8.4	35-45	0	0-2	0
	29-60	9-20	7.9-9.0	40-60	0	0-2	0-5
Zeale-----	0-8	15-20	7.4-8.4	15-45	0	0	0
	8-60	15-20	7.9-9.0	40-80	0	0-2	0-5
126:							
Millhi-----	0-4	15-25	7.9-9.0	0-5	0	0-2	2-6
	4-9	30-55	7.9-8.4	5-10	0	2-4	15-30
	9-60	40-50	7.9-9.0	5-10	1-5	8-16	15-30
127:							
Millhi-----	0-2	15-25	7.9-8.4	0-5	0	0-2	2-6
	2-4	30-55	7.9-8.4	5-10	0	2-4	2-6
	4-48	40-50	7.9-9.0	5-10	1-5	8-16	15-30
	48-60	40-50	7.9-9.0	5-10	1-5	8-16	15-30
128:							
Millhi-----	0-2	15-25	7.9-8.4	0-5	0	0-2	2-6
	2-4	30-55	7.9-8.4	5-10	0	2-4	2-6
	4-48	40-50	7.9-9.0	5-10	1-5	8-16	15-30
	48-60	40-50	7.9-9.0	5-10	1-5	8-16	15-30
Millhi, eroded-----	0-1	40-60	7.9-9.0	0-5	0	8-16	2-6
	1-60	40-50	7.9-9.0	5-10	1-5	8-16	15-30

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
129:							
Millhi-----	0-2	15-25	7.9-8.4	0-5	0	0-2	2-6
	2-4	30-55	7.9-8.4	5-10	0	2-4	2-6
	4-48	40-50	7.9-9.0	5-10	1-5	8-16	15-30
	48-60	40-50	7.9-9.0	5-10	1-5	8-16	15-30
Badland-----	---	---	---	---	---	---	---
130:							
Millhi-----	0-2	15-25	7.9-8.4	0-5	0	0-2	2-6
	2-4	30-55	7.9-8.4	5-10	0	2-4	2-6
	4-48	40-50	7.9-9.0	5-10	1-5	8-16	15-30
	48-60	40-50	7.9-9.0	5-10	1-5	8-16	15-30
Lacrol-----	0-2	10-20	6.6-7.3	0	0	0	0
	2-7	10-20	6.6-7.8	0	0	0	0
	7-60	15-35	7.4-9.0	0-10	0	2-8	0-5
131:							
Misfire-----	0-3	10-15	6.6-7.3	0	0	0	0
	3-12	15-20	6.6-7.3	0	0	0	0
	12-60	5-10	7.4-7.8	10-20	0	0	0
Pattee-----	0-4	9-15	7.4-8.4	0	0	0	0-2
	4-25	7-15	7.4-8.4	0-5	0	0-2	2-12
	25-49	7-15	7.4-8.4	5-15	0	16-32	13-20
	49-60	6-10	7.4-8.4	10-15	0	16-32	10-30
Dawtonia-----	0-4	11-20	6.6-7.8	0	0	0-2	0
	4-11	15-25	7.4-7.8	15-25	0	0-2	0
	11-60	6-10	7.4-8.4	15-20	0	0-2	0
132:							
Mitring-----	0-3	15-20	7.9-8.4	5-10	0	0-4	0
	3-10	15-20	7.9-8.4	15-20	0	0-4	0
	10-30	7-11	7.9-9.0	15-20	0	4-8	0-5
	30-40	---	---	---	---	---	---
Holinrock-----	0-2	10-20	7.4-7.8	5-15	0	2-4	0
	2-6	8-20	7.4-7.8	5-15	0	2-4	0
	6-24	12-20	7.9-8.4	15-30	0	2-4	0-5
	24-29	12-20	7.9-8.4	20-35	0	2-4	0-5
	29-33	---	---	---	---	---	---
133:							
Mogg-----	0-5	15-25	7.4-8.4	0-10	0	0	0
	5-14	11-20	7.4-8.4	15-25	0	0-4	0
	14-18	---	---	---	---	---	---
Dawtonia-----	0-4	11-20	6.6-7.8	0	0	0-2	0
	4-12	15-25	7.4-7.8	15-25	0	0-2	0
	12-24	15-20	7.4-8.4	15-30	0	0-2	0
	24-60	6-10	7.4-8.4	15-20	0	0-2	0
134:							
Mooretown-----	0-4	11-24	6.6-7.8	0-10	0	0	0
	4-43	8-22	7.4-8.4	0-15	0	0-2	0
	43-60	7-15	7.4-7.8	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<i>In</i>	<i>meq/100 g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>	
134:							
Blackfoot-----	0-19	15-25	7.4-8.4	0-15	0	0-2	0-5
	19-36	15-25	7.4-8.4	0-15	0	0-2	0-5
	36-60	15-35	7.4-8.4	0-15	0	0-2	0-5
Borah-----	0-4	5-15	7.4-8.4	1-10	0	0-2	0-5
	4-12	5-13	7.4-8.4	5-20	0	0-2	0
	12-60	1-4	7.4-8.4	0-10	0	0-2	0
135:							
Mooretown-----	0-3	11-25	6.6-7.8	5-10	0	0	0
	3-35	9-20	7.4-8.4	5-15	0	0	0
	35-60	5-10	6.6-7.8	0	0	0	0
Borco-----	0-2	5-15	7.4-8.4	0-10	0	0-2	0-5
	2-10	5-13	7.4-8.4	3-10	0	0-2	0-5
	10-60	1-4	7.4-8.4	0-5	0	0-2	0-5
136:							
Morphey-----	0-11	14-25	7.4-7.8	0	0	0	0
	11-19	20-36	7.4-7.8	0	0	0-2	0
	19-60	22-42	7.4-8.4	5-20	0	2-4	0-5
137:							
Morphey-----	0-11	14-25	7.4-7.8	0	0	0	0
	11-19	20-36	7.4-7.8	0	0	0-2	0
	19-60	22-42	7.4-8.4	5-20	0	2-4	0-5
138:							
Mountainboy-----	0-6	17-25	7.4-7.8	35-60	0	0-2	0
	6-11	17-25	7.4-8.4	35-60	0	0-2	0-5
	11-16	10-20	7.4-8.4	50-70	0	0-2	0-5
	16-19	1-5	8.5-11.0	70-80	0	0-2	5-10
	19-20	---	---	---	---	---	---
	20-60	1-5	8.5-11.0	70-80	0	0-4	5-10
139:							
Mountainboy-----	0-5	17-25	7.4-7.8	35-60	0	0-2	0
	5-18	10-20	7.4-8.4	50-70	0	0-2	0-5
	18-19	---	---	---	---	---	---
	19-60	1-5	8.5-11.0	70-80	0	0-4	5-10
140:							
Nicholia-----	0-2	11-15	7.4-8.4	30-40	0	0-2	0
	2-14	10-15	7.4-8.4	55-65	0	0-2	0
	14-15	---	---	---	---	---	---
	15-60	1-3	9.1-9.6	60-70	0	2-4	5-10
Goosebury-----	0-2	5-20	7.4-7.8	0-15	0	0-2	0
	2-11	5-20	7.4-8.4	15-35	0	0-2	0
	11-41	5-15	7.4-8.4	15-40	0	0-2	0
	41-60	3-10	7.4-8.4	15-35	0	0-2	0
141:							
Nielsen-----	0-3	15-20	6.6-7.3	0	0	0	0
	3-15	15-25	6.6-7.3	0	0	0	0
	15-25	---	---	---	---	---	---
Gaciba-----	0-3	11-20	7.4-7.8	0	0	0	0
	3-18	12-20	6.6-7.8	0-5	0	0	0
	18-22	---	---	---	---	---	---

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
142:							
Nitchly-----	0-2	15-20	7.4-8.4	10-35	0	0-2	0
	2-14	15-20	7.4-8.4	35-55	0	0-2	0
	14-60	20-25	7.4-9.0	40-90	0	0-2	0-5
Skibo-----	0-4	12-20	7.4-7.8	0-10	0	0-2	0
	4-9	12-20	7.4-8.4	5-15	0	0-2	0
	9-19	12-20	7.4-8.4	40-80	0	0-2	0
	19-60	6-20	7.9-8.4	40-80	0	0-2	0
Rock outcrop-----	---	---	---	---	---	---	---
143:							
Nurkey-----	0-10	13-20	6.6-7.3	0	0	0	0
	10-51	20-25	6.6-7.8	0-10	0	0	0
	51-60	6-10	7.4-8.4	15-35	0	0-2	0
Zeebar-----	0-8	11-15	6.1-7.3	0	0	0	0
	8-22	8-14	6.1-7.3	0	0	0	0
	22-35	15-20	6.1-7.3	0	0	0	0
	35-49	15-20	6.1-7.3	0	0	0	0
	49-60	11-15	6.1-7.8	0	0	0	0
Hutchley-----	0-5	10-20	6.6-7.8	0	0	0	0
	5-10	10-20	6.6-7.8	0	0	0	0
	10-18	10-25	6.6-7.8	0	0	0	0
	18-28	---	---	---	---	---	---
144:							
Nurkey-----	0-4	15-25	6.6-7.8	0	0	0	0
	4-8	14-25	7.4-8.4	0	0	0	0
	8-14	15-30	7.4-8.4	0-20	0	0	0
	14-32	9-25	7.4-8.4	20-30	0	0	0
	32-60	4-15	7.4-8.4	10-20	0	0-2	0
Dacont-----	0-8	12-20	6.6-7.3	0	0	0	0
	8-15	15-30	7.4-8.4	0-30	0	0	0-5
	15-28	10-25	7.4-8.4	15-30	0	0-2	0-5
	28-60	10-25	7.4-8.4	5-15	0	0-2	0-5
145:							
Nurkey-----	0-2	13-20	6.6-7.3	0	0	0	0
	2-6	12-15	6.6-7.8	0	0	0	0
	6-19	20-25	6.6-7.8	0-10	0	0	0
	19-28	15-20	7.4-8.4	10-15	0	0-2	0
	28-60	6-10	7.4-8.4	15-35	0	0-2	0
Dacont-----	0-4	10-20	6.6-7.3	0	0	0	0
	4-10	15-30	7.4-8.4	0-30	0	0	0-5
	10-18	10-25	7.4-8.4	15-30	0	0-2	0-5
	18-60	10-25	7.4-8.4	5-15	0	0-2	0-5
146:							
Nurkey-----	0-1	13-20	6.6-7.3	0	0	0	0
	1-5	12-15	6.6-7.8	0	0	0	0
	5-54	15-20	7.4-8.4	10-15	0	0-2	0
	54-60	6-10	7.4-8.4	15-35	0	0-2	0
Dawtonia-----	0-3	11-20	6.6-7.8	0	0	0-2	0
	3-15	15-25	7.4-7.8	15-25	0	0-2	0
	15-60	6-10	7.4-8.4	15-20	0	0-2	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
147:							
Oxhead-----	0-3	10-15	6.6-7.8	5-10	0	0	0
	3-21	10-15	6.6-8.4	10-20	0	0-2	0-2
	21-61	5-10	7.4-9.0	15-20	0	0-4	0-5
148:							
Packham-----	0-5	15-20	7.4-7.8	0	0	0	0
	5-32	7-10	7.4-7.8	0-15	0	0-2	0
	32-60	4-7	7.4-7.8	5-15	0	0-2	0
149:							
Packham-----	0-5	15-20	7.4-7.8	0	0	0	0
	5-32	7-10	7.4-7.8	0-15	0	0-2	0
	32-60	4-7	7.4-7.8	5-15	0	0-2	0
Perreau-----	0-5	10-20	6.6-7.8	0	0	0-2	0
	5-18	20-35	7.4-8.4	0-5	0	2-4	5-10
	18-37	10-20	7.4-8.4	5-15	0	2-4	5-10
	37-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
150:							
Packmo-----	0-3	11-20	6.6-7.8	0	0	0	0
	3-10	9-15	6.6-7.8	0	0	0	0
	10-40	8-15	7.4-8.4	5-15	0	0-2	0
	40-60	3-8	7.4-9.0	5-15	0	0-2	0-5
Leadore-----	0-3	12-15	6.6-7.3	0	0	0	0
	3-16	10-15	6.6-7.8	0-5	0	0	0
	16-60	1-7	7.9-8.4	10-25	0	0-2	0
151:							
Packmo-----	0-3	11-20	6.6-7.8	0	0	0	0
	3-10	9-15	6.6-7.8	0	0	0	0
	10-40	8-15	7.4-8.4	5-15	0	0-2	0
	40-60	3-8	7.4-9.0	5-15	0	0-2	0-5
Whitekno-----	0-4	9-10	7.4-9.0	10-20	0	0-2	0-5
	4-8	8-15	7.4-9.0	10-20	0	0-2	0-5
	8-13	5-9	7.9-9.0	15-30	0	0-2	0-5
	13-60	3-7	7.9-9.0	15-35	0	0-2	0-5
152:							
Pahsimeroi-----	0-7	10-15	7.4-7.8	0	0	0	0
	7-17	10-15	6.6-7.3	0	0	0	0
	17-32	3-7	6.6-7.3	0	0	0	0
	32-60	1-5	7.9-8.4	0-5	0	0-2	0
153:							
Pahsimeroi-----	0-7	10-15	7.4-7.8	0	0	0	0
	7-17	10-15	6.6-7.3	0	0	0	0
	17-32	3-7	6.6-7.3	0	0	0	0
	32-60	1-5	7.9-8.4	0-5	0	0-2	0
154:							
Pahsimeroi-----	0-5	10-15	7.4-7.8	0	0	0	0
	5-12	10-15	6.6-7.3	0	0	0	0
	12-25	3-7	6.6-7.3	0	0	0	0
	25-60	1-5	7.9-8.4	0-5	0	0-2	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
155:							
Paint-----	0-3	11-15	7.4-9.0	25-65	0	0-2	0-5
	3-12	11-15	7.4-9.0	40-70	0	2-8	5-13
	12-16	---	---	---	---	---	---
	16-60	4-8	7.9-9.0	35-70	0	2-8	5-13
Paint, cold-----	0-8	11-15	7.4-9.0	25-65	0	0-2	0-5
	8-14	11-15	7.4-9.0	40-70	0	2-8	5-13
	14-15	---	---	---	---	---	---
	15-60	4-8	7.9-9.0	35-70	0	2-8	5-13
156:							
Paint-----	0-8	11-15	7.4-9.0	25-65	0	0-2	0-5
	8-14	11-15	7.4-9.0	40-70	0	2-8	5-13
	14-24	---	---	---	---	---	---
	24-60	4-8	7.9-9.0	35-70	0	2-8	5-13
Bluedome-----	0-5	8-14	7.4-9.0	20-30	0	0	0-5
	5-35	7-11	7.9-9.0	40-70	0	0-2	0-5
	35-37	---	---	---	---	---	---
	37-60	6-11	8.5-9.0	0	0	0-2	2-8
157:							
Paint-----	0-3	11-15	7.4-9.0	25-65	0	0-2	0-5
	3-12	11-15	7.4-9.0	40-70	0	2-8	5-13
	12-16	---	---	---	---	---	---
	16-60	4-8	7.9-9.0	35-70	0	2-8	5-13
Whitecloud-----	0-6	8-20	7.4-8.4	10-20	0	0	0
	6-13	8-20	7.4-8.4	10-20	0	0-2	0
	13-20	5-15	7.4-8.4	55-80	0	0-2	0
	20-60	2-7	7.9-8.4	55-80	0	0-2	0
158:							
Parkay-----	0-13	15-20	6.6-7.3	0	0	0	0
	13-32	13-15	6.6-7.3	0	0	0	0
	32-60	10-14	6.6-7.8	0	0	0	0
Donkehill-----	0-5	9-20	7.4-7.8	0	0	0	0
	5-16	8-20	7.4-7.8	0-10	0	0	0
	16-20	---	---	---	---	---	---
159:							
Parkay-----	0-4	12-20	6.6-7.3	0	0	0	0
	4-10	12-20	6.6-7.8	0	0	0	0
	10-20	11-25	7.4-7.8	0	0	0	0
	20-35	12-20	7.4-8.4	0	0	0	0
	35-60	10-15	7.4-8.4	0	0	0	0
Nurkey-----	0-8	13-20	6.6-7.3	0	0	0	0
	8-26	12-15	6.6-7.8	0	0	0	0
	26-60	6-10	7.4-8.4	15-35	0	0-2	0
160:							
Parkay-----	0-4	15-20	6.6-7.3	0	0	0	0
	4-9	13-15	6.6-7.3	0	0	0	0
	9-35	13-15	6.6-7.3	0	0	0	0
	35-60	13-15	6.6-7.8	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<i>In</i>	<i>meq/100 g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>	
160:							
Nurkey-----	0-2	13-20	6.6-7.3	0	0	0	0
	2-6	12-15	6.6-7.8	0	0	0	0
	6-19	20-25	6.6-7.8	0-10	0	0	0
	19-28	15-20	7.4-8.4	10-15	0	0-2	0
	28-60	6-10	7.4-8.4	15-35	0	0-2	0
161:							
Parkay-----	0-4	15-20	6.6-7.3	0	0	0	0
	4-9	13-15	6.6-7.3	0	0	0	0
	9-17	13-15	6.6-7.3	0	0	0	0
	17-35	10-14	6.6-7.8	0	0	0	0
	35-60	13-15	6.6-7.8	0	0	0	0
Zeebar-----	0-7	11-15	6.1-7.3	0	0	0	0
	7-24	15-20	6.1-7.3	0	0	0	0
	24-60	11-15	6.1-7.8	0	0	0	0
162:							
Parkay-----	0-4	15-20	6.6-7.3	0	0	0	0
	4-9	13-15	6.6-7.3	0	0	0	0
	9-35	13-15	6.6-7.3	0	0	0	0
	35-60	13-15	6.6-7.8	0	0	0	0
Friedman-----	0-2	15-25	6.1-6.5	0	0	0	0
	2-18	15-25	6.1-6.5	0	0	0	0
	18-37	25-35	6.1-7.3	0	0	0	0
	37-60	45-60	6.6-7.3	0	0	0	0
163:							
Pattee-----	0-3	9-15	7.4-8.4	0	0	0	0-2
	3-26	7-15	7.4-8.4	0-5	0	0-2	2-12
	26-60	7-15	7.4-8.4	5-15	0	16-32	13-20
Perreau-----	0-4	10-20	6.6-7.8	0	0	0-2	0
	4-13	20-35	7.4-8.4	0-5	0	2-4	5-10
	13-26	10-20	7.4-8.4	5-15	0	2-4	5-10
	26-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
164:							
Pattee-----	0-4	9-15	7.4-8.4	0	0	0	0-2
	4-25	7-15	7.4-8.4	0-5	0	0-2	2-12
	25-49	7-15	7.4-8.4	5-15	0	16-32	13-20
	49-60	6-10	7.4-8.4	10-15	0	16-32	10-30
Perreau-----	0-4	10-20	6.6-7.8	0	0	0-2	0
	4-13	20-35	7.4-8.4	0-5	0	2-4	5-10
	13-26	10-20	7.4-8.4	5-15	0	2-4	5-10
	26-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
165:							
Pedoli-----	0-2	10-25	6.6-7.8	0	0	0	0
	2-15	15-30	7.4-8.4	0	0	0	0
	15-19	15-25	7.4-8.4	10-15	0	0-2	0
	19-32	4-15	7.4-8.4	10-15	0	0-2	0
	32-60	1-5	7.4-8.4	10-15	0	0-2	0
Dawtonia-----	0-4	11-20	6.6-7.8	0	0	0-2	0
	4-12	15-25	7.4-7.8	15-25	0	0-2	0
	12-24	15-20	7.4-8.4	15-30	0	0-2	0
	24-60	6-10	7.4-8.4	15-20	0	0-2	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
166:							
Pedoli-----	0-2	10-25	6.6-7.8	0	0	0	0
	2-15	15-30	7.4-8.4	0	0	0	0
	15-19	15-25	7.4-8.4	10-15	0	0-2	0
	19-32	4-15	7.4-8.4	10-15	0	0-2	0
	32-60	1-5	7.4-8.4	10-15	0	0-2	0
Whiteknob-----	0-3	9-10	7.4-9.0	10-20	0	0-2	0-5
	3-7	8-15	7.4-9.0	10-20	0	0-2	0-5
	7-18	5-9	7.9-9.0	15-30	0	0-2	0-5
	18-60	3-7	7.9-9.0	15-35	0	0-2	0-5
167:							
Penagul-----	0-2	20-25	6.6-7.3	0	0	0-4	0
	2-8	25-30	6.6-7.8	0	0	0-4	0
	8-18	---	---	---	---	---	---
Rosebriar-----	0-2	13-20	7.4-7.8	0-5	0	0	0
	2-12	30-40	7.4-7.8	5-10	0	0-4	0
	12-17	20-30	7.9-8.4	5-10	0	0-4	0
	17-27	---	---	---	---	---	---
168:							
Perreau-----	0-4	10-20	6.6-7.8	0	0	0-2	0
	4-13	20-35	7.4-8.4	0-5	0	2-4	5-10
	13-26	10-20	7.4-8.4	5-15	0	2-4	5-10
	26-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
169:							
Perreau-----	0-4	10-20	6.6-7.8	0	0	0-2	0
	4-13	20-35	7.4-8.4	0-5	0	2-4	5-10
	13-26	10-20	7.4-8.4	5-15	0	2-4	5-10
	26-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
170:							
Perreau-----	0-5	10-20	6.6-7.8	0	0	0-2	0
	5-18	20-35	7.4-8.4	0-5	0	2-4	5-10
	18-21	10-20	7.4-8.4	5-15	0	2-4	5-10
	21-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
171:							
Perreau-----	0-4	10-20	6.6-7.8	0	0	0-2	0
	4-13	20-35	7.4-8.4	0-5	0	2-4	5-10
	13-26	10-20	7.4-8.4	5-15	0	2-4	5-10
	26-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
Dawtonia-----	0-4	11-20	6.6-7.3	0	0	0-2	0
	4-12	15-25	7.4-7.8	15-25	0	0-2	0
	12-24	15-20	7.4-8.4	15-30	0	0-2	0
	24-60	6-10	7.4-8.4	15-20	0	0-2	0
172:							
Perreau-----	0-4	10-20	6.6-7.8	0	0	0-2	0
	4-13	20-35	7.4-8.4	0-5	0	2-4	5-10
	13-26	10-20	7.4-8.4	5-15	0	2-4	5-10
	26-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
Dawtonia-----	0-4	11-20	6.6-7.3	0	0	0-2	0
	4-12	15-25	7.4-7.8	15-25	0	0-2	0
	12-24	15-20	7.4-8.4	15-30	0	0-2	0
	24-60	6-10	7.4-8.4	15-20	0	0-2	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
173:							
Perreau-----	0-3	10-20	6.6-7.8	0	0	0-2	0
	3-12	20-35	7.4-8.4	0-5	0	2-4	5-10
	12-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
Pattee-----	0-4	9-15	7.4-8.4	0	0	0	0-2
	4-25	7-15	7.4-8.4	0-5	0	0-2	2-12
	25-49	7-15	7.4-8.4	5-15	0	16-32	13-20
	49-60	6-10	7.4-8.4	10-20	0	16-32	10-30
174:							
Pits, gravel-----	---	---	---	---	---	---	---
175:							
Pits, mine-----	---	---	---	---	---	---	---
176:							
Povey-----	0-5	12-30	6.1-7.3	0	0	0	0
	5-22	10-25	6.1-7.3	0	0	0	0
	22-60	4-15	6.1-7.3	0	0	0	0
177:							
Povey-----	0-4	12-30	6.1-7.3	0	0	0	0
	4-16	10-25	6.1-7.3	0	0	0	0
	16-60	4-15	6.1-7.3	0	0	0	0
Klug-----	0-7	12-20	6.6-7.3	0	0	0	0
	7-12	10-15	6.6-7.8	0	0	0	0
	12-60	10-15	6.6-7.8	0	0	0	0
178:							
Reck-----	0-2	15-25	6.6-7.3	0	0	0	0
	2-5	20-25	6.6-7.3	0	0	0	0
	5-20	30-40	6.6-7.3	0	0	0	0
	20-46	25-35	6.6-7.8	0	0	0-2	0
	46-60	8-13	7.4-8.4	0	0	0-2	0
Threedot-----	0-3	20-30	6.1-6.5	0	0	0	0
	3-11	20-30	6.1-6.5	0	0	0	0
	11-14	20-25	6.1-6.5	0	0	0	0
	14-43	30-40	6.1-7.3	0	0	0	0
	43-60	30-40	6.1-7.3	0	0	0	0
179:							
Redfish-----	0-7	10-17	5.6-6.5	0	0	0	0
	7-13	8-15	6.1-7.3	0	0	0	0
	13-60	1-6	6.1-7.3	0	0	0	0
Fezip-----	0-6	8-13	6.1-7.3	0	0	0	0
	6-16	5-12	6.1-7.3	0	0	0	0
	16-26	8-13	6.1-7.3	0	0	0	0
	26-60	0-5	6.1-7.3	0	0	0	0
Lilylake-----	0-12	40-120	5.6-6.5	0	0	0	0
	12-15	4-9	6.1-7.3	0	0	0	0
	15-60	0-5	6.1-7.3	0	0	0	0
180:							
Resoot-----	0-3	20-25	6.1-6.5	0-5	0	0	0
	3-10	15-30	6.1-6.5	0-5	0	0	0
	10-60	30-45	6.6-7.8	10-20	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
180:							
Friedman-----	0-3	15-25	6.1-6.5	0	0	0	0
	3-10	15-25	6.1-6.5	0	0	0	0
	10-16	25-35	6.1-7.3	0	0	0	0
	16-30	45-60	6.6-7.3	0	0	0	0
	30-60	45-60	6.6-7.3	0	0	0	0
181:							
Resoot-----	0-3	20-25	6.1-6.5	0-5	0	0	0
	3-12	15-30	6.1-6.5	0-5	0	0	0
	12-60	30-45	6.6-7.8	10-20	0	0	0
Friedman-----	0-2	15-25	6.1-6.5	0	0	0	0
	2-18	15-25	6.1-6.5	0	0	0	0
	18-37	25-35	6.1-7.3	0	0	0	0
	37-60	45-60	6.6-7.3	0	0	0	0
182:							
Ringle-----	0-4	9-15	7.4-7.8	5-15	0	0-2	0
	4-9	8-12	7.4-7.8	50-65	0	2-4	0
	9-16	3-8	7.4-7.8	65-75	0	4-8	0
	16-60	1-5	7.4-8.4	70-80	0	4-16	0
183:							
Rock outcrop-----	---	---	---	---	---	---	---
Rubble land-----	---	---	---	---	---	---	---
184:							
Sanfelipe-----	0-8	9-20	7.4-7.8	0-15	0	0-2	0
	8-38	8-20	7.4-8.4	25-70	0	0-2	0
	38-60	2-9	7.4-8.4	65-70	0	0-2	0
Sanfelipe, moist----	0-9	9-20	7.4-7.8	0-15	0	0-2	0
	9-30	8-20	7.4-8.4	25-70	0	0-2	0
	30-60	2-9	7.4-8.4	65-70	0	0-2	0
185:							
Shenon-----	0-4	15-20	6.6-7.3	0	0	0	0
	4-14	15-20	7.4-8.4	0	0	0	0
	14-24	20-30	8.5-9.0	15-25	0	0-2	0-5
	24-60	10-15	8.5-9.0	15-25	0	0-2	0-5
186:							
Shenon-----	0-4	15-20	6.6-7.3	0	0	0	0
	4-14	15-20	7.4-8.4	0	0	0	0
	14-24	20-30	8.5-9.0	15-25	0	0-2	0-5
	24-60	10-15	8.5-9.0	15-25	0	0-2	0-5
187:							
Shenon-----	0-4	15-20	6.6-7.3	0	0	0	0
	4-14	15-20	7.4-8.4	0	0	0	0
	14-24	20-30	8.5-9.0	15-25	0	0-2	0-5
	24-60	10-15	8.5-9.0	15-25	0	0-2	0-5
Perreau-----	0-5	10-20	6.6-7.8	0	0	0-2	0
	5-18	20-35	7.4-8.4	0-5	0	2-4	5-10
	18-21	10-20	7.4-8.4	5-15	0	2-4	5-10
	21-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
188:							
Shenon-----	0-4	15-20	6.6-7.3	0	0	0	0
	4-14	15-20	7.4-8.4	0	0	0	0
	14-24	20-30	8.5-9.0	15-25	0	0-2	0-5
	24-60	10-15	8.5-9.0	15-25	0	0-2	0-5
Perreau-----	0-5	10-20	6.6-7.8	0	0	0-2	0
	5-18	20-35	7.4-8.4	0-5	0	2-4	5-10
	18-21	10-20	7.4-8.4	5-15	0	2-4	5-10
	21-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
189:							
Simeroi-----	0-3	8-20	7.4-8.4	5-10	0	0-2	0
	3-16	8-20	7.4-8.4	30-70	0	0-2	0
	16-54	7-14	7.9-9.0	40-70	0	0-2	0-5
	54-60	1-6	7.9-9.0	30-50	0	0-2	0-5
190:							
Simeroi-----	0-3	8-20	7.4-8.4	5-10	0	0-2	0
	3-8	8-20	7.4-8.4	30-70	0	0-2	0
	8-48	7-14	7.9-9.0	40-70	0	0-2	0-5
	48-60	1-6	7.9-9.0	30-50	0	0-2	0-5
191:							
Simeroi, cold-----	0-2	8-20	7.4-8.4	5-10	0	0-2	0
	2-22	8-20	7.4-8.4	30-70	0	0-2	0
	22-36	7-14	7.9-9.0	40-70	0	0-2	0-5
	36-60	1-6	7.9-9.0	30-50	0	0-2	0-5
Simeroi-----	0-11	8-20	7.4-8.4	5-10	0	0-2	0
	11-60	7-14	7.9-9.0	40-70	0	0-2	0-5
192:							
Simeroi-----	0-9	8-20	7.4-8.4	5-10	0	0-2	0
	9-23	8-20	7.4-8.4	30-70	0	0-2	0
	23-60	7-14	7.9-9.0	40-70	0	0-2	0-5
Paint-----	0-8	11-15	7.4-9.0	25-65	0	0-2	0-5
	8-14	11-15	7.4-9.0	40-70	0	2-8	5-13
	14-24	---	---	---	---	---	---
	24-60	4-8	7.9-9.0	35-70	0	2-8	5-13
Sanfelipe-----	0-8	9-20	7.4-7.8	0-15	0	0-2	0
	8-38	8-20	7.4-8.4	25-70	0	0-2	0
	38-60	2-9	7.4-8.4	65-70	0	0-2	0
193:							
Simeroi-----	0-9	8-20	7.4-8.4	5-10	0	0-2	0
	9-23	8-20	7.4-8.4	30-70	0	0-2	0
	23-60	7-14	7.9-9.0	40-70	0	0-2	0-5
Whitecloud-----	0-3	8-20	7.4-8.4	10-20	0	0	0
	3-17	8-20	7.4-8.4	10-20	0	0-2	0
	17-60	2-7	7.9-8.4	55-80	0	0-2	0
194:							
Skibo-----	0-5	12-20	7.4-7.8	0-10	0	0-2	0
	5-23	12-20	7.4-8.4	40-80	0	0-2	0
	23-60	6-20	7.9-8.4	40-80	0	0-2	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
195:							
Smout-----	0-7	5-15	7.4-8.4	0	0	0	0
	7-12	5-15	7.4-8.4	0	0	0	0
	12-60	1-5	7.4-8.4	0	0	0	0
Cowbone-----	0-16	10-15	7.4-8.4	5-20	0	0-2	0
	16-24	10-15	7.4-8.4	0-5	0	0-2	0
	24-54	2-7	7.4-8.4	0	0	0	0
	54-60	2-7	6.6-7.8	0	0	0	0
196:							
Smout-----	0-6	15-25	7.4-8.4	0	0	0	0
	6-11	5-15	7.4-8.4	0	0	0	0
	11-60	1-5	7.4-8.4	0	0	0	0
Yearian-----	0-15	15-30	6.6-7.3	0	0	0	0
	15-60	2-15	6.6-7.8	0	0	0	0
197:							
Snowslide-----	0-7	9-15	7.4-8.4	0-10	0	0-4	0-2
	7-45	5-10	7.9-8.4	15-35	0	4-8	5-10
	45-60	8-14	7.4-8.4	15-35	0	8-16	5-10
198:							
Snowslide-----	0-9	9-15	7.4-8.4	5-10	0	0-4	0-2
	9-21	5-10	7.9-8.4	15-35	0	4-8	5-10
	21-55	8-14	7.4-8.4	15-35	0	8-16	5-10
	55-60	5-15	7.9-8.4	20-40	0	8-16	0-5
199:							
Snowslide-----	0-9	9-15	7.4-8.4	5-10	0	0-4	0-2
	9-21	5-10	7.9-8.4	15-35	0	4-8	5-10
	21-55	8-14	7.4-8.4	15-35	0	8-16	5-10
	55-60	5-15	7.9-8.4	20-40	0	8-16	0-5
200:							
Snowslide-----	0-3	8-20	7.9-8.4	5-10	0	0-4	0-2
	3-12	8-20	7.9-8.4	5-20	0	0-4	0-2
	12-39	4-15	7.9-8.4	15-35	0	0-4	0-2
	39-44	8-20	7.9-8.4	15-35	0	0-4	0-2
	44-60	4-8	7.4-8.4	15-35	0	0-4	0-2
Badland-----	---	---	---	---	---	---	---
Perreau-----	0-5	10-20	6.6-7.8	0	0	0-2	0
	5-18	20-35	7.4-8.4	0-5	0	2-4	5-10
	18-21	10-20	7.4-8.4	5-15	0	2-4	5-10
	21-60	10-15	7.4-8.4	15-25	0-10	4-8	5-13
201:							
Snowslide-----	0-9	9-15	7.4-8.4	5-10	0	0-4	0-2
	9-21	5-10	7.9-8.4	15-35	0	4-8	5-10
	21-55	8-14	7.4-8.4	15-35	0	8-16	5-10
	55-60	5-15	7.9-8.4	20-40	0	8-16	0-5
Farvant-----	0-2	10-20	7.4-8.4	5-15	0	0-4	0
	2-6	8-15	7.9-8.4	15-30	0	4-8	0
	6-12	8-15	7.9-8.4	15-40	0	4-8	0
	12-16	---	---	---	---	---	---

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
202:							
Snowslide, south-----	0-7	9-15	7.4-8.4	0-10	0	0-4	0-2
	7-45	5-10	7.9-8.4	15-35	0	4-8	5-10
	45-60	8-14	7.4-8.4	15-35	0	8-16	5-10
Zer-----	0-5	8-15	7.4-8.4	0-5	0	0	0
	5-14	7-15	7.4-9.0	15-25	0	0-2	0-5
	14-26	4-10	7.9-9.0	30-40	0	0-2	0-8
	26-60	2-6	7.9-9.0	15-30	0	0-2	0-8
Snowslide, north-----	0-9	9-15	7.4-8.4	0-10	0	0-4	0-2
	9-60	8-14	7.4-8.4	15-35	0	8-16	5-10
203:							
Soen-----	0-7	15-20	6.6-7.8	0	0	0	0
	7-20	25-35	6.6-8.4	0-15	0	0	0
	20-60	20-25	7.4-9.0	15-25	0	0-8	0-5
204:							
Soen-----	0-5	15-20	6.6-7.8	0	0	0	0
	5-14	25-35	6.6-8.4	0-15	0	0	0
	14-60	20-25	7.4-9.0	15-25	0	0-8	0-5
Justesen-----	0-4	10-25	6.6-7.8	0	0	0	0
	4-40	20-25	6.6-8.4	0-20	0	0	0
	40-60	13-25	7.4-9.0	15-25	0	0-2	0-5
Howcan-----	0-4	9-20	6.6-7.8	0	0	0	0
	4-10	10-20	6.6-7.8	0	0	0	0
	10-48	9-20	6.6-7.8	0	0	0	0
	48-64	5-15	6.6-7.8	0-2	0	0-2	0
205:							
Sparmo-----	0-5	10-15	7.4-8.4	5-10	0	0-4	0-5
	5-37	9-13	7.9-9.0	10-40	0	2-4	2-8
	37-60	4-8	7.9-9.0	10-30	0	2-4	2-8
206:							
Sparmo-----	0-3	10-15	7.4-8.4	5-10	0	0-4	0-5
	3-38	9-13	7.9-9.0	10-40	0	2-4	2-8
	38-60	4-8	7.9-9.0	10-30	0	2-4	2-8
Zer-----	0-3	8-15	7.4-8.4	0-5	0	0	0
	3-10	7-15	7.4-9.0	15-25	0	0-2	0-5
	10-23	4-10	7.9-9.0	30-40	0	0-2	0-8
	23-60	2-6	7.9-9.0	15-30	0	0-2	0-8
207:							
Sparmo-----	0-3	10-15	7.4-8.4	5-10	0	0-4	0-5
	3-38	9-13	7.9-9.0	10-40	0	2-4	2-8
	38-60	4-8	7.9-9.0	10-30	0	2-4	2-8
Zer-----	0-3	8-15	7.4-8.4	0-5	0	0	0
	3-10	7-15	7.4-9.0	15-25	0	0-2	0-5
	10-23	4-10	7.9-9.0	30-40	0	0-2	0-8
	23-60	2-6	7.9-9.0	15-30	0	0-2	0-8

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
208:							
Sprabat-----	0-5	5-12	7.9-8.4	2-5	0	0-4	2-8
	5-7	5-10	7.9-8.4	2-5	0	0-4	2-8
	7-41	5-10	7.9-9.0	5-15	0	4-8	2-13
	41-53	2-6	7.9-8.4	5-15	0	0-4	2-8
	53-60	5-10	8.5-9.0	2-10	0	0-4	2-13
209:							
Sprabat-----	0-5	5-12	7.9-8.4	2-5	0	0-4	2-8
	5-7	5-10	7.9-8.4	2-5	0	0-4	2-8
	7-41	5-10	7.9-9.0	5-15	0	4-8	2-13
	41-53	2-6	7.9-8.4	5-15	0	0-4	2-8
	53-60	5-10	8.5-9.0	2-10	0	0-4	2-13
Snowslide-----	0-7	9-15	7.4-8.4	0-10	0	0-4	0-2
	7-45	5-10	7.9-8.4	15-35	0	4-8	5-10
	45-60	8-14	7.4-8.4	15-35	0	8-16	5-10
210:							
Struggle-----	0-2	20-30	5.1-6.0	0	0	0	0
	2-18	10-20	5.1-6.0	0	0	0	0
	18-38	2-8	5.6-6.5	0	0	0	0
	38-60	1-5	5.6-6.5	0	0	0	0
Struggle, very stony	0-2	20-30	5.1-6.0	0	0	0	0
	2-13	10-20	5.1-6.0	0	0	0	0
	13-25	2-8	5.6-6.5	0	0	0	0
	25-60	1-5	5.6-6.5	0	0	0	0
211:							
Surrett-----	0-8	12-14	6.6-7.8	0-5	0	0	0
	8-27	8-14	7.4-8.4	5-20	0	0	0
	27-36	---	---	---	---	---	---
	36-60	4-12	7.9-9.0	15-20	0	0-4	0-5
212:							
Surrett-----	0-10	12-14	6.6-7.8	0-5	0	0	0
	10-30	8-14	7.4-8.4	5-20	0	0	0
	30-40	---	---	---	---	---	---
	40-60	4-12	7.9-9.0	15-20	0	0-4	0-5
Nurkey-----	0-4	13-25	6.6-7.3	0	0	0	0
	4-10	14-25	7.4-8.4	0	0	0	0
	10-20	15-30	7.4-8.4	0-20	0	0	0
	20-60	4-15	7.4-8.4	10-20	0	0-2	0
213:							
Swahlen-----	0-2	10-20	6.6-7.8	0	0	0	0
	2-8	10-20	6.6-7.8	0	0	0	0
	8-27	15-25	6.6-7.8	0	0	0	0
	27-60	5-15	6.6-7.8	0	0	0	0
Packham-----	0-5	15-20	7.4-7.8	0	0	0	0
	5-32	7-10	7.4-7.8	0-15	0	0-2	0
	32-60	4-7	7.4-7.8	5-15	0	0-2	0
214:							
Swahlen-----	0-2	10-20	6.6-7.8	0	0	0	0
	2-8	10-20	6.6-7.8	0	0	0	0
	8-27	15-25	6.6-7.8	0	0	0	0
	27-60	5-15	6.6-7.8	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
214:							
Yearian-----	0-2	14-25	6.6-7.3	0	0	0	0
	2-12	10-20	6.6-7.8	0	0	0	0
	12-60	2-15	6.6-7.8	0	0	0	0
215:							
Thosand-----	0-5	15-25	7.4-7.8	40-70	0	4-8	0
	5-22	13-20	7.4-8.4	55-70	0	0-4	0-2
	22-39	13-20	7.4-8.4	10-15	0	0	0-2
	39-44	10-14	7.4-8.4	5-15	0	0	0-2
	44-60	1-6	7.4-8.4	5-15	0	0	0-2
Chillybu-----	0-31	40-60	6.6-7.8	5-20	0	0	0
	31-42	45-65	6.6-7.8	0-10	0	0	0
	42-60	10-20	7.4-8.4	0	0	0-2	0
216:							
Thosand-----	0-5	15-25	7.4-7.8	40-70	0	4-8	0
	5-22	13-20	7.4-8.4	55-70	0	0-4	0-2
	22-39	13-20	7.4-8.4	10-15	0	0	0-2
	39-44	10-14	7.4-8.4	5-15	0	0	0-2
	44-60	1-6	7.4-8.4	5-15	0	0	0-2
Sanocrane-----	0-2	20-35	7.9-8.4	25-35	0	4-8	0-2
	2-24	13-20	7.4-8.4	15-30	0	4-8	0-2
	24-60	1-5	7.4-7.8	2-10	0	0-2	0
217:							
Thosand-----	0-5	15-25	7.4-7.8	40-70	0	4-8	0
	5-22	13-20	7.4-8.4	55-70	0	0-4	0-2
	22-39	13-20	7.4-8.4	10-15	0	0	0-2
	39-44	10-14	7.4-8.4	5-15	0	0	0-2
	44-60	1-6	7.4-8.4	5-15	0	0	0-2
Wiskisprings-----	0-8	15-25	6.6-7.3	0	0	0	0
	8-49	13-20	6.6-7.8	0	0	0	0
	49-54	11-20	6.6-7.8	0	0	0	0
	54-60	1-7	6.6-7.8	0	0	0	0
218:							
Threedot-----	0-8	20-30	6.1-6.5	0	0	0	0
	8-11	20-25	6.1-6.5	0	0	0	0
	11-19	20-30	6.1-6.5	0	0	0	0
	19-51	30-40	6.1-7.3	0	0	0	0
	51-60	14-20	6.6-7.3	0	0	0	0
219:							
Threedot-----	0-10	20-30	6.1-6.5	0	0	0	0
	10-29	20-30	6.1-6.5	0	0	0	0
	29-60	30-40	6.1-7.3	0	0	0	0
220:							
Threedot, dry-----	0-6	20-30	6.1-6.5	0	0	0	0
	6-28	20-30	6.1-6.5	0	0	0	0
	28-60	30-40	6.1-7.3	0	0	0	0
Threedot-----	0-8	20-30	6.1-6.5	0	0	0	0
	8-11	20-25	6.1-6.5	0	0	0	0
	11-19	20-30	6.1-6.5	0	0	0	0
	19-51	30-40	6.1-7.3	0	0	0	0
	51-60	14-20	6.6-7.3	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
221:							
Typic Cryaquepts-----	0-7	15-20	7.4-7.8	0	0	0	0
	7-13	15-30	7.4-7.8	0	0	0	0
	13-60	10-30	7.9-8.4	0-5	0	0-4	0
222:							
Ureal-----	0-7	5-15	7.4-7.8	0	0	0	0
	7-14	4-15	6.6-7.8	0	0	0	0
	14-24	---	---	---	---	---	---
Zeebar-----	0-3	11-15	6.1-7.3	0	0	0	0
	3-13	8-14	6.1-7.3	0	0	0	0
	13-19	15-20	6.1-7.3	0	0	0	0
	19-29	15-20	6.1-7.3	0	0	0	0
	29-60	11-15	6.1-7.8	0	0	0	0
Dacont-----	0-4	10-20	6.6-7.3	0	0	0	0
	4-10	15-30	7.4-8.4	0-30	0	0	0-5
	10-18	10-25	7.4-8.4	15-30	0	0-2	0-5
	18-60	10-25	7.4-8.4	5-15	0	0-2	0-5
223:							
Venum-----	0-2	11-25	6.6-7.8	0	0	0-2	0
	2-20	20-40	6.6-7.8	0	0	0-2	0
	20-42	20-40	6.6-7.8	0-10	0	0-2	0
	42-60	15-30	7.4-9.0	0-10	0	0-2	0-5
Cronks-----	0-10	15-25	6.1-6.5	0	0	0	0
	10-35	35-45	6.6-7.8	0-5	0	0	0
	35-55	15-25	7.4-8.4	15-25	0	0-2	0
	55-70	15-25	7.4-8.4	0-10	0	0-2	0
224:							
Venum-----	0-2	11-25	6.6-7.3	0	0	0-2	0
	2-9	20-40	6.6-7.8	0	0	0-2	0
	9-26	20-40	6.6-7.8	0-10	0	0-2	0
	26-60	15-30	7.4-9.0	0-10	0	0-2	0-5
Rock outcrop-----	---	---	---	---	---	---	---
225:							
Venum-----	0-2	11-25	6.6-7.8	0	0	0-2	0
	2-20	20-40	6.6-7.8	0	0	0-2	0
	20-42	20-40	6.6-7.8	0-10	0	0-2	0
	42-60	15-30	7.4-9.0	0-10	0	0-2	0-5
Custco-----	0-4	10-20	6.6-7.3	0	0	0	0
	4-17	13-20	6.6-8.4	0	0	0	0
	17-60	5-10	7.4-8.4	15-25	0	0-2	0
226:							
Whitecloud-----	0-3	8-20	7.4-8.4	10-20	0	0	0
	3-18	5-15	7.4-8.4	55-80	0	0-2	0
	18-60	2-7	7.9-8.4	55-80	0	0-2	0
227:							
Whitecloud-----	0-4	8-20	7.4-8.4	10-20	0	0	0
	4-14	8-20	7.4-8.4	10-20	0	0-2	0
	14-60	2-7	7.9-8.4	55-80	0	0-2	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
228:							
Whitecloud-----	0-5	8-20	7.4-8.4	10-20	0	0	0
	5-14	5-15	7.4-8.4	55-80	0	0-2	0
	14-60	2-7	7.9-8.4	55-80	0	0-2	0
Sanfelipe-----	0-8	9-20	7.4-7.8	0-15	0	0-2	0
	8-38	8-20	7.4-8.4	25-70	0	0-2	0
	38-60	2-9	7.4-8.4	65-70	0	0-2	0
Fandow-----	0-4	10-20	7.4-8.4	10-30	0	0-2	0
	4-16	10-20	7.9-8.4	40-65	0	0-2	0
	16-25	---	---	---	---	---	---
	25-60	1-5	7.9-9.6	30-50	0	0-2	13-30
229:							
Whitecloud-----	0-2	8-20	7.4-8.4	10-20	0	0	0
	2-6	8-20	7.4-8.4	10-20	0	0-2	0
	6-17	5-15	7.4-8.4	55-80	0	0-2	0
	17-60	2-7	7.9-8.4	55-80	0	0-2	0
Simeroi-----	0-3	8-20	7.4-8.4	5-10	0	0-2	0
	3-16	8-20	7.4-8.4	30-70	0	0-2	0
	16-54	7-14	7.9-9.0	40-70	0	0-2	0-5
	54-60	1-6	7.9-9.0	30-50	0	0-2	0-5
230:							
Whitknob-----	0-4	9-10	7.4-9.0	10-20	0	0-2	0-5
	4-7	8-15	7.4-9.0	10-20	0	0-2	0-5
	7-11	5-9	7.9-9.0	15-30	0	0-2	0-5
	11-60	3-7	7.9-9.0	15-35	0	0-2	0-5
231:							
Whitknob-----	0-3	9-10	7.4-9.0	10-20	0	0-2	0-5
	3-9	8-15	7.4-9.0	10-20	0	0-2	0-5
	9-60	3-7	7.9-9.0	15-35	0	0-2	0-5
Leadore-----	0-3	12-15	6.6-7.3	0	0	0	0
	3-20	10-15	6.6-7.8	0-5	0	0	0
	20-60	1-7	7.9-8.4	10-25	0	0-2	0
232:							
Whitknob-----	0-4	9-10	7.4-9.0	10-20	0	0-2	0-5
	4-7	8-15	7.4-9.0	10-20	0	0-2	0-5
	7-11	5-9	7.9-9.0	15-30	0	0-2	0-5
	11-60	3-7	7.9-9.0	15-35	0	0-2	0-5
Zer-----	0-3	8-15	7.4-8.4	0-5	0	0	0
	3-9	7-15	7.4-9.0	15-25	0	0-2	0-5
	9-21	4-10	7.9-9.0	30-40	0	0-2	0-8
	21-60	2-6	7.9-9.0	15-30	0	0-2	0-8
233:							
Wiggleton-----	0-6	11-20	7.4-7.8	0	0	0	0
	6-12	6-12	7.4-7.8	0-5	0	0	0
	12-60	1-7	7.4-8.4	0-5	0	0-2	0
234:							
Wiggleton-----	0-5	10-20	6.6-7.8	0	0	0	0
	5-11	5-12	6.6-7.3	0-5	0	0	0
	11-60	2-5	6.6-7.3	0-5	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
234:							
Copperbasin-----	0-10	9-15	6.6-7.8	0	0	0	0
	10-27	8-9	7.4-7.8	0	0	0	0
	27-60	2-7	6.6-7.8	0	0	0	0
235:							
Wimpey-----	0-3	30-45	7.4-8.4	1-5	0	0-2	0-5
	3-14	25-45	7.4-8.4	1-5	0	0-2	0-5
	14-27	20-45	7.4-8.4	0	0	0-2	0
	27-60	4-13	6.6-7.3	0	0	0	0
Zeph-----	0-5	30-45	6.6-7.8	0-5	0	0-2	0
	5-23	5-8	6.6-7.8	0	0	0-2	0
	23-60	5-8	6.6-7.8	0	0	0-2	0
Ajax-----	0-11	30-55	7.9-9.0	1-5	0	2-4	0-5
	11-32	25-50	7.4-8.4	1-5	0	2-4	0-5
	32-60	5-25	7.4-8.4	1-5	0	2-4	0-5
236:							
Windcoat-----	0-3	8-20	7.4-8.4	25-35	0	0-2	0-5
	3-14	8-20	7.9-9.0	45-60	0	4-8	5-10
	14-18	---	---	---	---	---	---
	18-60	3-7	8.5-9.0	55-70	0	4-8	5-10
237:							
Windcoat-----	0-5	8-20	7.4-8.4	25-35	0	0-2	0-5
	5-15	8-20	7.9-9.0	45-60	0	4-8	5-10
	15-18	---	---	---	---	---	---
	18-60	3-7	8.5-9.0	55-70	0	4-8	5-10
Fandow-----	0-7	10-20	7.4-8.4	10-30	0	0-2	0
	7-15	10-20	7.9-8.4	40-65	0	0-2	0
	15-17	---	---	---	---	---	---
	17-60	1-5	7.9-9.6	30-50	0	0-2	13-30
238:							
Wiskisprings-----	0-8	15-25	6.6-7.3	0	0	0	0
	8-49	13-20	6.6-7.8	0	0	0	0
	49-54	11-20	6.6-7.8	0	0	0	0
	54-60	1-7	6.6-7.8	0	0	0	0
Biglost-----	0-5	13-20	6.6-7.8	0	0	0	0
	5-26	13-20	6.6-7.8	0	0	0	0
	26-60	0-3	6.6-7.8	0	0	0	0
239:							
Wiskisprings-----	0-8	15-25	6.6-7.3	0	0	0	0
	8-49	13-20	6.6-7.8	0	0	0	0
	49-54	11-20	6.6-7.8	0	0	0	0
	54-60	1-7	6.6-7.8	0	0	0	0
Biglost-----	0-5	13-20	6.6-7.8	0	0	0	0
	5-26	13-20	6.6-7.8	0	0	0	0
	26-60	0-3	6.6-7.8	0	0	0	0
Copperbasin-----	0-5	9-15	7.4-7.8	0	0	0	0
	5-25	8-9	7.4-7.8	0	0	0	0
	25-33	2-8	6.6-7.8	0	0	0	0
	33-60	2-7	6.6-7.8	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
240:							
Xeric Torrifluvents--	0-3	10-20	7.4-8.4	2-5	0	0	0
	3-44	5-12	7.4-8.4	5-10	0	0	0
	44-60	2-7	7.4-8.4	2-5	0	0	0
241:							
Yearian-----	0-2	14-25	6.6-7.3	0	0	0	0
	2-12	10-20	6.6-7.8	0	0	0	0
	12-60	2-15	6.6-7.8	0	0	0	0
242:							
Yearian-----	0-2	14-25	6.6-7.3	0	0	0	0
	2-12	13-25	6.6-7.8	0	0	0	0
	12-60	8-20	6.6-7.8	0	0	0	0
243:							
Zeale-----	0-9	15-20	7.4-8.4	15-45	0	0	0
	9-60	15-20	7.9-9.0	40-80	0	0-2	0-5
Meegero-----	0-10	11-15	6.6-7.3	0-10	0	0	0
	10-19	12-20	6.6-7.3	20-30	0	0	0
	19-29	15-20	7.4-8.4	35-45	0	0-2	0
	29-60	9-20	7.9-9.0	40-60	0	0-2	0-5
244:							
Zeale-----	0-9	15-20	7.4-8.4	15-45	0	0	0
	9-60	15-20	7.9-9.0	40-80	0	0-2	0-5
Meegero-----	0-10	11-15	6.6-7.3	0-10	0	0	0
	10-19	12-20	6.6-7.3	20-30	0	0	0
	19-29	15-20	7.4-8.4	35-45	0	0-2	0
	29-60	9-20	7.9-9.0	40-60	0	0-2	0-5
245:							
Zeale-----	0-9	15-20	7.4-8.4	15-45	0	0	0
	9-60	15-20	7.9-9.0	40-80	0	0-2	0-5
Zeelnot-----	0-10	15-20	6.6-7.8	0	0	0	0
	10-24	10-30	7.4-8.4	30-40	0	0-2	0-5
	24-32	15-25	7.4-8.4	40-45	0	0-4	5-10
	32-60	20-35	7.4-8.4	40-50	0	0-2	0-5
246:							
Zeebar-----	0-8	11-15	6.1-7.3	0	0	0	0
	8-22	8-14	6.1-7.3	0	0	0	0
	22-35	15-20	6.1-7.3	0	0	0	0
	35-49	15-20	6.1-7.3	0	0	0	0
	49-60	11-15	6.1-7.8	0	0	0	0
Nielsen-----	0-3	15-20	6.6-7.3	0	0	0	0
	3-15	15-25	6.6-7.3	0	0	0	0
	15-25	---	---	---	---	---	---
Povey-----	0-4	12-30	6.1-7.3	0	0	0	0
	4-16	10-25	6.1-7.3	0	0	0	0
	16-60	4-15	6.1-7.3	0	0	0	0

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
247:							
Zeebar-----	0-2	11-15	6.1-7.3	0	0	0	0
	2-9	8-14	6.1-7.3	0	0	0	0
	9-16	15-20	6.1-7.3	0	0	0	0
	16-32	15-20	6.1-7.3	0	0	0	0
	32-60	11-15	6.1-7.8	0	0	0	0
Parkay-----	0-10	15-20	6.6-7.3	0	0	0	0
	10-17	13-15	6.6-7.3	0	0	0	0
	17-26	13-15	6.6-7.3	0	0	0	0
	26-60	10-14	6.6-7.8	0	0	0	0
248:							
Zeebar-----	0-5	11-15	6.1-7.3	0	0	0	0
	5-15	8-14	6.1-7.3	0	0	0	0
	15-60	11-15	6.1-7.8	0	0	0	0
Resoot-----	0-3	20-25	6.1-6.5	0-5	0	0	0
	3-10	15-30	6.1-6.5	0-5	0	0	0
	10-60	30-45	6.6-7.8	10-20	0	0	0
249:							
Zeegee-----	0-11	30-55	7.4-8.4	0	0	0-2	0
	11-35	15-30	7.4-8.4	0	0	0	0
	35-60	5-10	7.4-8.4	0	0	0	0
Ajax-----	0-4	30-55	7.9-9.0	1-5	0	2-4	0-5
	4-41	25-50	7.4-8.4	1-5	0	2-4	0-5
	41-60	5-25	7.4-8.4	1-5	0	2-4	0-5
250:							
Zeelnot-----	0-10	15-20	6.6-7.8	0	0	0	0
	10-24	10-30	7.4-8.4	30-40	0	0-2	0-5
	24-32	15-25	7.4-8.4	40-45	0	0-4	5-10
	32-60	20-35	7.4-8.4	40-50	0	0-2	0-5
251:							
Zeelnot-----	0-8	15-20	6.6-7.8	0	0	0	0
	8-23	10-30	7.4-8.4	30-40	0	0-2	0-5
	23-60	20-35	7.4-8.4	40-50	0	0-2	0-5
252:							
Zeelnot-----	0-10	15-20	6.6-7.8	0	0	0	0
	10-24	10-30	7.4-8.4	30-40	0	0-2	0-5
	24-32	15-25	7.4-8.4	40-45	0	0-4	5-10
	32-60	20-35	7.4-8.4	40-50	0	0-2	0-5
Meegernot-----	0-16	15-20	6.6-7.8	0-5	0	0-2	0
	16-41	15-20	7.4-7.8	15-35	0	0-2	0
	41-58	20-30	7.4-7.8	10-15	0	0-2	0
	58-66	4-8	7.9-8.4	10-15	0	0-2	0
Adek-----	0-2	8-12	7.4-7.8	15-25	0	0-2	0
	2-14	7-11	7.9-9.0	30-60	0	0-4	0-5
	14-27	6-10	7.9-9.0	40-60	0	0-4	0-5
	27-60	6-10	8.5-9.0	40-60	0	0-4	2-5

Table 14.--Chemical Properties of the Soils--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	In	meq/100 g	pH	Pct	Pct	mmhos/cm	
253:							
Zer-----	0-5	8-15	7.4-8.4	0-5	0	0	0
	5-14	7-15	7.4-9.0	15-25	0	0-2	0-5
	14-26	4-10	7.9-9.0	30-40	0	0-2	0-8
	26-60	2-6	7.9-9.0	15-30	0	0-2	0-8
254:							
Zer-----	0-7	8-15	7.4-8.4	0-5	0	0	0
	7-14	7-15	7.9-9.0	20-35	0	0-2	0-8
	14-60	4-10	7.9-9.0	30-40	0	0-2	0-8
255:							
Zer-----	0-8	11-24	8.5-9.6	5-20	0	8-16	5-10
	8-43	6-17	7.9-9.0	15-35	0	4-8	0-8
	43-60	7-14	7.9-8.4	15-35	0	2-4	0-5
256:							
Zer-----	0-6	8-15	7.4-8.4	0-5	0	0	0
	6-26	7-15	7.4-9.0	15-25	0	0-2	0-5
	26-60	4-10	7.9-9.0	30-40	0	0-2	0-8
257:							
Zer-----	0-8	11-24	8.5-9.6	5-20	0	8-16	5-10
	8-43	6-17	7.9-9.0	15-35	0	4-8	0-8
	43-60	7-14	7.9-8.4	15-35	0	2-4	0-5
258:							
Zer-----	0-3	15-20	7.4-7.8	0-5	0	0-2	0
	3-27	10-15	7.9-8.4	20-35	0	0-2	0-5
	27-60	2-6	7.9-8.4	15-30	0	0-2	0-5
259:							
Zer-----	0-5	8-15	7.4-8.4	0-5	0	0	0
	5-14	7-15	7.4-9.0	15-25	0	0-2	0-5
	14-26	4-10	7.9-9.0	30-40	0	0-2	0-8
	26-60	2-6	7.9-9.0	15-30	0	0-2	0-8
Snowslide-----	0-7	9-15	7.4-8.4	0-10	0	0-4	0-2
	7-60	8-14	7.4-8.4	15-35	0	8-16	5-10
260:							
Zer-----	0-5	8-15	7.4-8.4	0-5	0	0	0
	5-14	7-15	7.4-9.0	15-25	0	0-2	0-5
	14-26	4-10	7.9-9.0	30-40	0	0-2	0-8
	26-60	2-6	7.9-9.0	15-30	0	0-2	0-8
Snowslide-----	0-7	9-15	7.4-8.4	0-10	0	0-4	0-2
	7-24	5-10	7.9-8.4	15-35	0	4-8	5-10
	24-60	8-14	7.4-8.4	15-35	0	8-16	5-10
261:							
Zer-----	0-5	8-15	7.4-8.4	0-5	0	0	0
	5-14	7-15	7.4-9.0	15-25	0	0-2	0-5
	14-20	4-10	7.9-9.0	30-40	0	0-2	0-8
	20-60	2-6	7.9-9.0	15-30	0	0-2	0-8
Whitknob-----	0-5	9-10	7.4-9.0	10-20	0	0-2	0-5
	5-10	8-15	7.4-9.0	10-20	0	0-2	0-5
	10-18	5-9	7.9-9.0	15-30	0	0-2	0-5
	18-60	3-7	7.9-9.0	15-35	0	0-2	0-5

Table 15.--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)

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				
1: Alpinepeak-----	C	June	2.5-3.5	>6.0	---	---	None	---	None
		July	2.5-3.5	>6.0	---	---	None	---	None
		August	2.5-3.5	>6.0	---	---	None	---	None
		September	2.5-3.5	>6.0	---	---	None	---	None
2: Aquments-----	D	January	0.5-1.0	>6.0	---	---	None	---	None
		February	0.5-1.0	>6.0	---	---	None	---	None
		March	0.5-1.0	>6.0	---	---	None	---	None
		April	0.5-1.0	>6.0	---	---	None	Long	Frequent
		May	0.5-1.0	>6.0	---	---	None	Long	Frequent
		June	0.5-1.0	>6.0	---	---	None	Long	Frequent
		July	0.5-1.0	>6.0	---	---	None	Long	Frequent
		August	0.5-1.0	>6.0	---	---	None	---	None
		September	0.5-1.0	>6.0	---	---	None	---	None
		October	0.5-1.0	>6.0	---	---	None	---	None
		November	0.5-1.0	>6.0	---	---	None	---	None
		December	0.5-1.0	>6.0	---	---	None	---	None
Riverwash-----	---	April	---	---	---	---	None	Long	Frequent
		May	---	---	---	---	None	Long	Frequent
		June	---	---	---	---	None	Long	Frequent
		July	---	---	---	---	None	Long	Frequent
3: Arbus-----	B	Jan-Dec	---	---	---	---	None	---	None
4: Arco-----	C	April	2.0-3.0	>6.0	---	---	None	Brief	Occasional
		May	2.0-3.0	>6.0	---	---	None	Brief	Occasional
		June	2.0-3.0	>6.0	---	---	None	Brief	Occasional
5: Badland-----	---	Jan-Dec	---	---	---	---	None	---	None
Millhi-----	D	February	0.0-0.5	0.1-0.8	---	---	None	---	None
		March	0.0-0.5	0.1-0.8	---	---	None	---	None
		April	0.0-0.5	0.1-0.8	---	---	None	---	None
6: Bartonflat-----	B	Jan-Dec	---	---	---	---	None	---	None
7: Bartonflat-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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				
8: Bartonhill-----	B	Jan-Dec	---	---	---	---	None	---	None
Whitecloud-----	B	Jan-Dec	---	---	---	---	None	---	None
9: Bayhorse, north-----	D	Jan-Dec	---	---	---	---	None	---	None
Bayhorse, south-----	D	Jan-Dec	---	---	---	---	None	---	None
10: Bayhorse-----	D	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
11: Bigflat-----	D	Jan-Dec	---	---	---	---	None	---	None
Dacont-----	B	Jan-Dec	---	---	---	---	None	---	None
12: Biglost-----	B	March	---	---	---	---	None	Brief	Occasional
		April	4.5-6.0	>6.0	---	---	None	Brief	Occasional
		May	4.5-6.0	>6.0	---	---	None	Brief	Occasional
		June	4.5-6.0	>6.0	---	---	None	Brief	Occasional
Copperbasin-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		April	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.5	>6.0	---	---	None	Brief	Occasional
13: Bigrant, very poorly drained-----	C	April	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		May	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		June	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		July	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		August	---	---	---	---	None	Brief	Occasional
		September	---	---	---	---	None	Brief	Occasional
Bigrant, poorly drained---	C	April	0.0-1.5	>6.0	---	---	None	Brief	Occasional
		May	0.0-1.5	>6.0	---	---	None	Brief	Occasional
		June	0.0-1.5	>6.0	---	---	None	Brief	Occasional
		July	0.0-1.5	>6.0	---	---	None	Brief	Occasional
		August	---	---	---	---	None	Brief	Occasional
		September	---	---	---	---	None	Brief	Occasional

Table 15.--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
14: Bigrant-----	C		Ft	Ft	Ft				
		April	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		May	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		June	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		July	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		August	---	---	---	---	None	Brief	Occasional
		September	---	---	---	---	None	Brief	Occasional
Thosand-----	D	January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		June	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		July	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		August	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		September	1.0-2.0	>6.0	---	---	None	---	None
		October	1.0-2.0	>6.0	---	---	None	---	None
		November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
Dickeypeak-----	C	March	1.5-3.5	>6.0	---	---	None	---	None
		April	1.5-3.5	>6.0	---	---	None	---	None
		May	1.5-3.5	>6.0	---	---	None	---	None
		June	1.5-3.5	>6.0	---	---	None	---	None
		July	1.5-3.5	>6.0	---	---	None	---	None
		August	1.5-3.5	>6.0	---	---	None	---	None
15: Blackfoot-----		B	March	4.0-6.0	>6.0	---	---	None	---
	April		4.0-6.0	>6.0	---	---	None	---	None
	May		4.0-6.0	>6.0	---	---	None	---	None
	June		4.0-6.0	>6.0	---	---	None	---	None
	July		4.0-6.0	>6.0	---	---	None	---	None
	August		4.0-6.0	>6.0	---	---	None	---	None
	September		4.0-6.0	>6.0	---	---	None	---	None
	October		4.0-6.0	>6.0	---	---	None	---	None
16: Blackfoot-----	B		March	4.0-6.0	>6.0	---	---	None	---
		April	4.0-6.0	>6.0	---	---	None	---	None
		May	4.0-6.0	>6.0	---	---	None	---	None
		June	4.0-6.0	>6.0	---	---	None	---	None
		July	4.0-6.0	>6.0	---	---	None	---	None
		August	4.0-6.0	>6.0	---	---	None	---	None
		September	4.0-6.0	>6.0	---	---	None	---	None
		October	4.0-6.0	>6.0	---	---	None	---	None
Borco-----		A	Jan-Dec	---	---	---	---	None	---
17: Bluedome-----	C	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
			<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
18: Bock-----	B	Jan-Dec	---	---	---	---	None	---	None
Breitenbach-----	B	Jan-Dec	---	---	---	---	None	---	None
19: Bock-----	B	Jan-Dec	---	---	---	---	None	---	None
Bromaglin-----	B	Jan-Dec	---	---	---	---	None	---	None
20: Bockston-----	B	Jan-Dec	---	---	---	---	None	---	None
21: Brabas-----	D	Jan-Dec	---	---	---	---	None	---	None
Heathcoat-----	C	Jan-Dec	---	---	---	---	None	---	None
22: Breitenbach-----	B	Jan-Dec	---	---	---	---	None	---	None
23: Breitenbach-----	B	Jan-Dec	---	---	---	---	None	---	None
24: Breitenbach-----	B	Jan-Dec	---	---	---	---	None	---	None
25: Bunting-----	A	Jan-Dec	---	---	---	---	None	---	None
26: Bunting-----	A	Jan-Dec	---	---	---	---	None	---	None
27: Bunting-----	A	Jan-Dec	---	---	---	---	None	---	None
Moffspring-----	C	April	3.0-6.0	>6.0	---	---	None	---	None
		May	3.0-6.0	>6.0	---	---	None	---	None
		June	3.0-6.0	>6.0	---	---	None	---	None

Table 15.--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
			<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
28: Bursteadt-----	B	March	2.0-3.0	>6.0	---	---	None	---	None
		April	2.0-3.0	>6.0	---	---	None	Brief	Occasional
		May	2.0-3.0	>6.0	---	---	None	Brief	Occasional
		June	2.0-3.0	>6.0	---	---	None	Brief	Occasional
		July	2.0-3.0	>6.0	---	---	None	---	None
		August	2.0-3.0	>6.0	---	---	None	---	None
		September	2.0-3.0	>6.0	---	---	None	---	None
		October	2.0-3.0	>6.0	---	---	None	---	None
Tohobit-----	C	March	1.5-3.0	>6.0	---	---	None	---	None
		April	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		July	1.5-3.0	>6.0	---	---	None	---	None
		August	1.5-3.0	>6.0	---	---	None	---	None
		September	1.5-3.0	>6.0	---	---	None	---	None
		October	1.5-3.0	>6.0	---	---	None	---	None
29: Busterback-----	B	Jan-Dec	---	---	---	---	None	---	None
Wiggleton-----	B	Jan-Dec	---	---	---	---	None	---	None
30: Calcidis-----	C	Jan-Dec	---	---	---	---	None	---	None
Badland-----	---	Jan-Dec	---	---	---	---	None	---	None
Xerolls-----	D	Jan-Dec	---	---	---	---	None	---	None
31: Calcidis-----	C	Jan-Dec	---	---	---	---	None	---	None
Rubble land-----	---	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop-----	---	Jan-Dec	---	---	---	---	None	---	None
32: Castlepeak-----	A	Jan-Dec	---	---	---	---	None	---	None
Yankeefork-----	B	Jan-Dec	---	---	---	---	None	---	None
33: Chamberlain-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
34: Coalkiln-----	B	Jan-Dec	---	---	---	---	None	---	None
Zeelnot-----	B	Jan-Dec	---	---	---	---	None	---	None
35: Copperbasin-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		April	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.5	>6.0	---	---	None	Brief	Occasional
Redfish-----	D	March	0.5-1.0	>6.0	---	---	None	---	None
		April	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
		August	0.5-1.0	>6.0	---	---	None	---	None
36: Copperbasin-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		April	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.5	>6.0	---	---	None	Brief	Occasional
Redfish-----	D	March	0.5-1.0	>6.0	---	---	None	---	None
		April	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
		August	0.5-1.0	>6.0	---	---	None	---	None
37: Cowbone-----	D	March	0.5-1.0	>6.0	---	---	None	---	None
		April	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
Tohobit-----	C	March	1.5-3.0	>6.0	---	---	None	---	None
		April	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		July	1.5-3.0	>6.0	---	---	None	---	None
		August	1.5-3.0	>6.0	---	---	None	---	None
		September	1.5-3.0	>6.0	---	---	None	---	None
		October	1.5-3.0	>6.0	---	---	None	---	None

Table 15.--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
			<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
38: Cronks-----	C	Jan-Dec	---	---	---	---	None	---	None
Challis-----	C	Jan-Dec	---	---	---	---	None	---	None
39: Cronks-----	C	Jan-Dec	---	---	---	---	None	---	None
Venum-----	D	Jan-Dec	---	---	---	---	None	---	None
40: Cryolls-----	B	Jan-Dec	---	---	---	---	None	---	None
Rubble land-----	---	Jan-Dec	---	---	---	---	None	---	None
41: Cryolls-----	B	Jan-Dec	---	---	---	---	None	---	None
Rubble land-----	---	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop-----	---	Jan-Dec	---	---	---	---	None	---	None
42: Cryepts-----	B	Jan-Dec	---	---	---	---	None	---	None
Rubble land-----	---	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop-----	---	Jan-Dec	---	---	---	---	None	---	None
43: Custco-----	B	Jan-Dec	---	---	---	---	None	---	None
44: Dacont-----	B	Jan-Dec	---	---	---	---	None	---	None
Custco-----	B	Jan-Dec	---	---	---	---	None	---	None
45: Dacont-----	B	Jan-Dec	---	---	---	---	None	---	None
Resoot-----	C	Jan-Dec	---	---	---	---	None	---	None
Nielsen-----	D	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
46:			<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
Dacont-----	B	Jan-Dec	---	---	---	---	None	---	None
Zeebar-----	B	Jan-Dec	---	---	---	---	None	---	None
47:									
Darlington-----	A	Jan-Dec	---	---	---	---	None	---	None
Lesbut-----	A	Jan-Dec	---	---	---	---	None	---	None
48:									
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
49:									
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
Dawtonia, cold-----	B	Jan-Dec	---	---	---	---	None	---	None
50:									
Dawtonia, cold-----	B	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
51:									
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
Frailton-----	D	Jan-Dec	---	---	---	---	None	---	None
52:									
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
Kehar-----	D	Jan-Dec	---	---	---	---	None	---	None
Soen-----	D	Jan-Dec	---	---	---	---	None	---	None
53:									
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop-----	---	Jan-Dec	---	---	---	---	None	---	None
54:									
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
Custco-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
55: Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
Dacont-----	B	Jan-Dec	---	---	---	---	None	---	None
56: Derwell-----	B	Jan-Dec	---	---	---	---	None	---	None
Whiteknob-----	B	Jan-Dec	---	---	---	---	None	---	None
57: Derwell-----	B	Jan-Dec	---	---	---	---	None	---	None
Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
Packmo-----	B	Jan-Dec	---	---	---	---	None	---	None
58: Dickeypeak-----	C	March	1.5-3.5	>6.0	---	---	None	---	None
		April	1.5-3.5	>6.0	---	---	None	---	None
		May	1.5-3.5	>6.0	---	---	None	---	None
		June	1.5-3.5	>6.0	---	---	None	---	None
		July	1.5-3.5	>6.0	---	---	None	---	None
		August	1.5-3.5	>6.0	---	---	None	---	None
Bigrant-----	C	April	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		May	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		June	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		July	0.0-1.0	>6.0	---	---	None	Brief	Occasional
		August	---	---	---	---	None	Brief	Occasional
		September	---	---	---	---	None	Brief	Occasional
59: Donkehill-----	D	Jan-Dec	---	---	---	---	None	---	None
60: Donkehill-----	D	Jan-Dec	---	---	---	---	None	---	None
Zeebar-----	B	Jan-Dec	---	---	---	---	None	---	None
61: Donkehill-----	D	Jan-Dec	---	---	---	---	None	---	None
Zeebar-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
62: Dumps, mine-----	---	Jan-Dec	---	---	---	---	None	---	None
63: Escarlo-----	B	Jan-Dec	---	---	---	---	None	---	None
Heathcoat-----	C	Jan-Dec	---	---	---	---	None	---	None
64: Escarlo-----	B	Jan-Dec	---	---	---	---	None	---	None
Heathcoat-----	C	Jan-Dec	---	---	---	---	None	---	None
65: Ezbin-----	B	Jan-Dec	---	---	---	---	None	---	None
Zeebar-----	B	Jan-Dec	---	---	---	---	None	---	None
Nielsen-----	D	Jan-Dec	---	---	---	---	None	---	None
66: Fandow-----	D	Jan-Dec	---	---	---	---	None	---	None
67: Fandow-----	D	Jan-Dec	---	---	---	---	None	---	None
Arbus-----	B	Jan-Dec	---	---	---	---	None	---	None
68: Farvant-----	D	Jan-Dec	---	---	---	---	None	---	None
Badland-----	---	Jan-Dec	---	---	---	---	None	---	None
Gradco-----	C	Jan-Dec	---	---	---	---	None	---	None
69: Farvant-----	D	Jan-Dec	---	---	---	---	None	---	None
Sactus-----	D	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
70: Fezip-----	D		<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
		April	---	---	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
		August	0.5-1.0	>6.0	---	---	None	---	None
Lemroi-----	D								
		January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	0.5-1.5	>6.0	---	---	None	Brief	Occasional
		May	0.5-1.5	>6.0	---	---	None	Brief	Occasional
		June	0.5-1.5	>6.0	---	---	None	Brief	Occasional
		July	0.5-1.5	>6.0	---	---	None	---	None
		August	0.5-1.5	>6.0	---	---	None	---	None
		September	0.5-1.5	>6.0	---	---	None	---	None
		October	0.5-1.5	>6.0	---	---	None	---	None
Redfish-----	D								
		March	0.5-1.0	>6.0	---	---	None	---	None
		April	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
		August	0.5-1.0	>6.0	---	---	None	---	None
71: Fezip-----	D								
		April	---	---	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
		August	0.5-1.0	>6.0	---	---	None	---	None
Redfish-----	D								
		March	0.5-1.0	>6.0	---	---	None	---	None
		April	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
		August	0.5-1.0	>6.0	---	---	None	---	None
Copperbasin-----	D								
		January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		April	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.5	>6.0	---	---	None	Brief	Occasional
72: Firebox-----	B								
		Jan-Dec	---	---	---	---	None	---	None
73: Firebox-----	B								
		Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
74:			<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
Frailton-----	D	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
75:									
Frailton-----	D	Jan-Dec	---	---	---	---	None	---	None
Gradco-----	C	Jan-Dec	---	---	---	---	None	---	None
76:									
Friedman-----	C	Jan-Dec	---	---	---	---	None	---	None
Reck-----	D	Jan-Dec	---	---	---	---	None	---	None
Goldhill-----	D	Jan-Dec	---	---	---	---	None	---	None
77:									
Gaciba-----	D	Jan-Dec	---	---	---	---	None	---	None
Cronks-----	C	Jan-Dec	---	---	---	---	None	---	None
78:									
Gaciba-----	D	Jan-Dec	---	---	---	---	None	---	None
Dacont-----	B	Jan-Dec	---	---	---	---	None	---	None
79:									
Gany-----	B	Jan-Dec	---	---	---	---	None	---	None
80:									
Geemore-----	C	Jan-Dec	---	---	---	---	None	---	None
81:									
Germer-----	C	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
82:									
Goldaho-----	D	Jan-Dec	---	---	---	---	None	---	None
Zer-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
83: Goldhill-----	D	Jan-Dec	---	---	---	---	None	---	None
Zeebar-----	B	Jan-Dec	---	---	---	---	None	---	None
84: Goosebury-----	B	Jan-Dec	---	---	---	---	None	---	None
85: Goosebury-----	B	Jan-Dec	---	---	---	---	None	---	None
86: Goosebury-----	B	Jan-Dec	---	---	---	---	None	---	None
Windcoat-----	D	Jan-Dec	---	---	---	---	None	---	None
87: Gradco-----	C	Jan-Dec	---	---	---	---	None	---	None
Farvant-----	D	Jan-Dec	---	---	---	---	None	---	None
88: Gradco-----	C	Jan-Dec	---	---	---	---	None	---	None
Farvant-----	D	Jan-Dec	---	---	---	---	None	---	None
89: Hagenbarth-----	B	Jan-Dec	---	---	---	---	None	---	None
Brabas-----	D	Jan-Dec	---	---	---	---	None	---	None
90: Heathcoat-----	C	Jan-Dec	---	---	---	---	None	---	None
91: Heathcoat-----	C	Jan-Dec	---	---	---	---	None	---	None
Goldhill-----	C	Jan-Dec	---	---	---	---	None	---	None
92: Heathcoat-----	C	Jan-Dec	---	---	---	---	None	---	None
Soen-----	D	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
93:			<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
Howcan-----	B	Jan-Dec	---	---	---	---	None	---	None
Hagenbarth-----	B	Jan-Dec	---	---	---	---	None	---	None
Hutchley-----	D	Jan-Dec	---	---	---	---	None	---	None
94:									
Hutchley-----	D	Jan-Dec	---	---	---	---	None	---	None
Nurkey-----	B	Jan-Dec	---	---	---	---	None	---	None
95:									
Ike-----	D	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop-----	---	Jan-Dec	---	---	---	---	None	---	None
Jimbee-----	D	Jan-Dec	---	---	---	---	None	---	None
96:									
Inferno-----	C	Jan-Dec	---	---	---	---	None	---	None
Grouseville-----	C	Jan-Dec	---	---	---	---	None	---	None
97:									
Jimbee-----	D	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop-----	---	Jan-Dec	---	---	---	---	None	---	None
Ike-----	D	Jan-Dec	---	---	---	---	None	---	None
98:									
Justesen-----	C	Jan-Dec	---	---	---	---	None	---	None
Drage-----	B	Jan-Dec	---	---	---	---	None	---	None
99:									
Kadletz-----	B	Jan-Dec	---	---	---	---	None	---	None
100:									
Kehar-----	D	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
101: Kehar-----	D	Jan-Dec	---	---	---	---	None	---	None
Kehar, eroded-----	D	Jan-Dec	---	---	---	---	None	---	None
102: Ketchum-----	B	Jan-Dec	---	---	---	---	None	---	None
103: Ketchum, cold-----	B	Jan-Dec	---	---	---	---	None	---	None
Ketchum-----	B	Jan-Dec	---	---	---	---	None	---	None
104: Klug-----	B	Jan-Dec	---	---	---	---	None	---	None
105: Klug-----	B	Jan-Dec	---	---	---	---	None	---	None
Gaciba-----	D	Jan-Dec	---	---	---	---	None	---	None
Dacont-----	B	Jan-Dec	---	---	---	---	None	---	None
106: Klug-----	B	Jan-Dec	---	---	---	---	None	---	None
Povey-----	B	Jan-Dec	---	---	---	---	None	---	None
107: Klug-----	B	Jan-Dec	---	---	---	---	None	---	None
Povey-----	B	Jan-Dec	---	---	---	---	None	---	None
108: Klug-----	B	Jan-Dec	---	---	---	---	None	---	None
Zeebar-----	B	Jan-Dec	---	---	---	---	None	---	None
109: Lacrol-----	D	March	0.3-0.7	0.4-0.8	---	---	None	---	None
		April	0.3-0.7	0.4-0.8	---	---	None	---	None
Friedman-----	C	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
			<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
110: Lag-----	B	Jan-Dec	---	---	---	---	None	---	None
111: Lag-----	B	Jan-Dec	---	---	---	---	None	---	None
112: Lag-----	B	Jan-Dec	---	---	---	---	None	---	None
Klug-----	B	Jan-Dec	---	---	---	---	None	---	None
113: Langer-----	A	Jan-Dec	---	---	---	---	None	---	None
114: Leadore-----	B	Jan-Dec	---	---	---	---	None	---	None
115: Leatherman-----	D	Jan-Dec	---	---	---	---	None	---	None
Arbus-----	B	Jan-Dec	---	---	---	---	None	---	None
116: Leatherman-----	D	Jan-Dec	---	---	---	---	None	---	None
Bluedome-----	C	Jan-Dec	---	---	---	---	None	---	None
117: Lemco-----	C	Jan-Dec	---	---	---	---	None	---	None
Friedman-----	C	Jan-Dec	---	---	---	---	None	---	None
118: Lemhi-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	1.0-1.5	>6.0	---	---	None	Brief	Occasional
		May	1.0-1.5	>6.0	---	---	None	Brief	Occasional
		June	1.0-1.5	>6.0	---	---	None	Brief	Occasional
Copperbasin-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		April	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.5	>6.0	---	---	None	Brief	Occasional

Table 15.--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
118: Lilylake-----	D		Ft	Ft	Ft				
		January	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		February	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		March	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		April	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		May	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		June	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		July	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		August	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		September	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		October	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		November	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		December	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
119: Lemroi-----	D								
		January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	0.5-1.5	>6.0	---	---	None	Brief	Occasional
		May	0.5-1.5	>6.0	---	---	None	Brief	Occasional
		June	0.5-1.5	>6.0	---	---	None	Brief	Occasional
		July	0.5-1.5	>6.0	---	---	None	---	None
		August	0.5-1.5	>6.0	---	---	None	---	None
		September	0.5-1.5	>6.0	---	---	None	---	None
		October	0.5-1.5	>6.0	---	---	None	---	None
Leecreek-----	D								
		January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	1.0-1.5	>6.0	---	---	None	Brief	Occasional
		May	1.0-1.5	>6.0	---	---	None	Brief	Occasional
		June	1.0-1.5	>6.0	---	---	None	Brief	Occasional
		July	1.0-1.5	>6.0	---	---	None	---	None
		August	1.0-1.5	>6.0	---	---	None	---	None
		September	1.0-1.5	>6.0	---	---	None	---	None
		October	1.0-1.5	>6.0	---	---	None	---	None
120: Lemroi-----	D								
		January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	0.5-1.5	>6.0	---	---	None	Brief	Occasional
		May	0.5-1.5	>6.0	---	---	None	Brief	Occasional
		June	0.5-1.5	>6.0	---	---	None	Brief	Occasional
		July	0.5-1.5	>6.0	---	---	None	---	None
		August	0.5-1.5	>6.0	---	---	None	---	None
		September	0.5-1.5	>6.0	---	---	None	---	None
		October	0.5-1.5	>6.0	---	---	None	---	None

Table 15.--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
120: Leecreek-----	D		Ft	Ft	Ft				
		January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	1.0-1.5	>6.0	---	---	None	Brief	Occasional
		May	1.0-1.5	>6.0	---	---	None	Brief	Occasional
		June	1.0-1.5	>6.0	---	---	None	Brief	Occasional
		July	1.0-1.5	>6.0	---	---	None	---	None
		August	1.0-1.5	>6.0	---	---	None	---	None
		September	1.0-1.5	>6.0	---	---	None	---	None
	October	1.0-1.5	>6.0	---	---	None	---	None	
Grandjean-----	D								
		January	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		February	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		March	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		April	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Brief	Frequent
		May	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Brief	Frequent
		June	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Brief	Frequent
		July	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		August	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		September	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		October	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		November	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
	December	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None	
121: Lesbut-----	A	Jan-Dec	---	---	---	---	None	---	None
122: Lilylake-----	D								
		January	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		February	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		March	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		April	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		May	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		June	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		July	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		August	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		September	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		October	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		November	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
	December	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None	
Grandjean-----	D								
		January	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		February	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		March	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		April	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Brief	Frequent
		May	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Brief	Frequent
		June	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Brief	Frequent
		July	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		August	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		September	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		October	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		November	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
	December	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None	

Table 15.--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
123: Mahaffey-----	C		Ft	Ft	Ft				
		January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	2.0-3.5	>6.0	---	---	None	Brief	Occasional
		May	2.0-3.5	>6.0	---	---	None	Brief	Occasional
		June	2.0-3.5	>6.0	---	---	None	Brief	Occasional
Copperbasin-----	D								
		January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		April	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.5	>6.0	---	---	None	Brief	Occasional
Wiskisprings-----	D								
		January	---	---	---	---	None	Brief	Frequent
		February	---	---	---	---	None	Brief	Frequent
		March	---	---	---	---	None	Brief	Frequent
		April	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
124: Meegernot-----	B	Jan-Dec	---	---	---	---	None	---	None
125: Meegero-----	B	Jan-Dec	---	---	---	---	None	---	None
Zeale-----	B	Jan-Dec	---	---	---	---	None	---	None
126: Millhi-----	D	February	0.0-0.5	0.1-0.8	---	---	None	---	None
		March	0.0-0.5	0.1-0.8	---	---	None	---	None
		April	0.0-0.5	0.1-0.8	---	---	None	---	None
127: Millhi-----	D	February	0.0-0.5	0.1-0.8	---	---	None	---	None
		March	0.0-0.5	0.1-0.8	---	---	None	---	None
		April	0.0-0.5	0.1-0.8	---	---	None	---	None
128: Millhi-----	D	February	0.0-0.5	0.1-0.8	---	---	None	---	None
		March	0.0-0.5	0.1-0.8	---	---	None	---	None
		April	0.0-0.5	0.1-0.8	---	---	None	---	None
Millhi, eroded-----	D	February	0.0-0.5	0.1-0.8	---	---	None	---	None
		March	0.0-0.5	0.1-0.8	---	---	None	---	None
		April	0.0-0.5	0.1-0.8	---	---	None	---	None

Table 15.--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				
129: Millhi-----	D	February	0.0-0.5	0.1-0.8	---	---	None	---	None
		March	0.0-0.5	0.1-0.8	---	---	None	---	None
		April	0.0-0.5	0.1-0.8	---	---	None	---	None
Badland-----	---	Jan-Dec	---	---	---	---	None	---	None
130: Millhi-----	D	February	0.0-0.5	0.1-0.8	---	---	None	---	None
		March	0.0-0.5	0.1-0.8	---	---	None	---	None
		April	0.0-0.5	0.1-0.8	---	---	None	---	None
Lacrol-----	D	March	0.3-0.7	0.4-0.8	---	---	None	---	None
		April	0.3-0.7	0.4-0.8	---	---	None	---	None
131: Misfire-----	B	Jan-Dec	---	---	---	---	None	---	None
Pattee-----	B	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
132: Mitring-----	C	Jan-Dec	---	---	---	---	None	---	None
Holinrock-----	C	Jan-Dec	---	---	---	---	None	---	None
133: Mogg-----	D	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
134: Mooretown-----	D	April	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.0	>6.0	---	---	None	---	None
		July	1.5-3.0	>6.0	---	---	None	---	None
Blackfoot-----	C	March	1.5-3.0	>6.0	---	---	None	---	None
		April	1.5-3.0	>6.0	---	---	None	---	None
		May	1.5-3.0	>6.0	---	---	None	---	None
		June	1.5-3.0	>6.0	---	---	None	---	None
		July	1.5-3.0	>6.0	---	---	None	---	None
		August	1.5-3.0	>6.0	---	---	None	---	None
		September	1.5-3.0	>6.0	---	---	None	---	None
		October	1.5-3.0	>6.0	---	---	None	---	None

Table 15.--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
134: Borah-----	A	April	1.0-2.0	>6.0	---	---	None	Brief	Occasional
		May	1.0-2.0	>6.0	---	---	None	Brief	Occasional
		June	1.0-2.0	>6.0	---	---	None	---	None
		July	1.0-2.0	>6.0	---	---	None	---	None
		August	1.0-2.0	>6.0	---	---	None	---	None
135: Mooretown-----	C	Jan-Dec	---	---	---	---	None	---	None
Borco-----	A	Jan-Dec	---	---	---	---	None	---	None
136: Morphey-----	D	April	1.0-1.5	1.2-1.7	---	---	None	---	None
		May	1.0-1.5	1.2-1.7	---	---	None	---	None
		June	1.0-1.5	1.2-1.7	---	---	None	---	None
137: Morphey-----	D	April	1.0-1.5	1.2-1.7	---	---	None	---	None
		May	1.0-1.5	1.2-1.7	---	---	None	---	None
		June	1.0-1.5	1.2-1.7	---	---	None	---	None
138: Mountainboy-----	D	Jan-Dec	---	---	---	---	None	---	None
139: Mountainboy-----	D	Jan-Dec	---	---	---	---	None	---	None
140: Nicholia-----	D	Jan-Dec	---	---	---	---	None	---	None
Goosebury-----	B	Jan-Dec	---	---	---	---	None	---	None
141: Nielsen-----	D	Jan-Dec	---	---	---	---	None	---	None
Gaciba-----	D	Jan-Dec	---	---	---	---	None	---	None
142: Nitchly-----	B	Jan-Dec	---	---	---	---	None	---	None
Skibo-----	B	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop-----	---	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
143: Nurkey-----	B	Jan-Dec	---	---	---	---	None	---	None
Zeebar-----	B	Jan-Dec	---	---	---	---	None	---	None
Hutchley-----	D	Jan-Dec	---	---	---	---	None	---	None
144: Nurkey-----	B	Jan-Dec	---	---	---	---	None	---	None
Dacont-----	B	Jan-Dec	---	---	---	---	None	---	None
145: Nurkey-----	B	Jan-Dec	---	---	---	---	None	---	None
Dacont-----	B	Jan-Dec	---	---	---	---	None	---	None
146: Nurkey-----	B	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
147: Oxhead-----	B	Jan-Dec	---	---	---	---	None	---	None
148: Packham-----	B	Jan-Dec	---	---	---	---	None	---	None
149: Packham-----	B	Jan-Dec	---	---	---	---	None	---	None
Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
150: Packmo-----	B	Jan-Dec	---	---	---	---	None	---	None
Leadore-----	B	Jan-Dec	---	---	---	---	None	---	None
151: Packmo-----	B	Jan-Dec	---	---	---	---	None	---	None
Whiteknob-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
152: Pahsimeroi-----	B	Jan-Dec	---	---	---	---	None	---	None
153: Pahsimeroi-----	B	Jan-Dec	---	---	---	---	None	---	None
154: Pahsimeroi-----	B	Jan-Dec	---	---	---	---	None	---	None
155: Paint-----	D	Jan-Dec	---	---	---	---	None	---	None
Paint, cold-----	D	Jan-Dec	---	---	---	---	None	---	None
156: Paint-----	D	Jan-Dec	---	---	---	---	None	---	None
Bluedome-----	C	Jan-Dec	---	---	---	---	None	---	None
157: Paint-----	D	Jan-Dec	---	---	---	---	None	---	None
Whitecloud-----	B	Jan-Dec	---	---	---	---	None	---	None
158: Parkay-----	B	Jan-Dec	---	---	---	---	None	---	None
Donkehill-----	D	Jan-Dec	---	---	---	---	None	---	None
159: Parkay-----	B	Jan-Dec	---	---	---	---	None	---	None
Nurkey-----	B	Jan-Dec	---	---	---	---	None	---	None
160: Parkay-----	B	Jan-Dec	---	---	---	---	None	---	None
Nurkey-----	B	Jan-Dec	---	---	---	---	None	---	None
161: Parkay-----	B	Jan-Dec	---	---	---	---	None	---	None
Zeebar-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
162: Parkay-----	B	Jan-Dec	---	---	---	---	None	---	None
Friedman-----	C	Jan-Dec	---	---	---	---	None	---	None
163: Pattee-----	B	Jan-Dec	---	---	---	---	None	---	None
Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
164: Pattee-----	B	Jan-Dec	---	---	---	---	None	---	None
Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
165: Pedoli-----	B	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
166: Pedoli-----	B	Jan-Dec	---	---	---	---	None	---	None
Whiteknob-----	B	Jan-Dec	---	---	---	---	None	---	None
167: Penagul-----	D	Jan-Dec	---	---	---	---	None	---	None
Rosebriar-----	D	Jan-Dec	---	---	---	---	None	---	None
168: Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
169: Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
170: Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
171: Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
172: Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
Dawtonia-----	B	Jan-Dec	---	---	---	---	None	---	None
173: Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
Pattee-----	B	Jan-Dec	---	---	---	---	None	---	None
174: Pits, gravel-----	---	Jan-Dec	---	---	---	---	None	---	None
175: Pits, mine-----	---	Jan-Dec	---	---	---	---	None	---	None
176: Povey-----	B	Jan-Dec	---	---	---	---	None	---	None
177: Povey-----	B	Jan-Dec	---	---	---	---	None	---	None
Klug-----	B	Jan-Dec	---	---	---	---	None	---	None
178: Reck-----	D	Jan-Dec	---	---	---	---	None	---	None
Threedot-----	D	April	1.0-2.0	1.5-2.5	---	---	None	---	None
		May	1.0-2.0	1.5-2.5	---	---	None	---	None
		June	1.0-2.0	1.5-2.5	---	---	None	---	None
179: Redfish-----	D	March	0.0-0.5	>6.0	0.0-0.5	Brief	Frequent	---	None
		April	0.0-0.5	>6.0	0.0-0.5	Brief	Frequent	Brief	Frequent
		May	0.0-0.5	>6.0	0.0-0.5	Brief	Frequent	Brief	Frequent
		June	0.0-0.5	>6.0	0.0-0.5	Brief	Frequent	Brief	Frequent
		July	0.0-0.5	>6.0	0.0-0.5	Brief	Frequent	---	None
		August	0.0-0.5	>6.0	0.0-0.5	Brief	Frequent	---	None
		September	0.0-0.5	>6.0	0.0-0.5	Brief	Frequent	---	None
		October	0.0-0.5	>6.0	0.0-0.5	Brief	Frequent	---	None
		November	0.0-0.5	>6.0	0.0-0.5	Brief	Frequent	---	None
Fezip-----	D	April	---	---	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
		August	0.5-1.0	>6.0	---	---	None	---	None

Table 15.--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
			<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
179: Lilylake-----	D	January	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		February	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		March	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		April	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		May	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		June	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Long	Frequent
		July	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		August	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		September	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		October	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		November	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		December	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
180: Resoot-----	C	Jan-Dec	---	---	---	---	None	---	None
Friedman-----	C	Jan-Dec	---	---	---	---	None	---	None
181: Resoot-----	C	Jan-Dec	---	---	---	---	None	---	None
Friedman-----	C	Jan-Dec	---	---	---	---	None	---	None
182: Ringle-----	B	Jan-Dec	---	---	---	---	None	---	None
183: Rock outcrop-----	---	Jan-Dec	---	---	---	---	None	---	None
Rubble land-----	---	Jan-Dec	---	---	---	---	None	---	None
184: Sanfelipe-----	B	Jan-Dec	---	---	---	---	None	---	None
Sanfelipe, moist-----	B	Jan-Dec	---	---	---	---	None	---	None
185: Shenon-----	B	Jan-Dec	---	---	---	---	None	---	None
186: Shenon-----	B	Jan-Dec	---	---	---	---	None	---	None
187: Shenon-----	B	Jan-Dec	---	---	---	---	None	---	None
Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
188: Shenon-----	B	Jan-Dec	---	---	---	---	None	---	None
Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
189: Simeroi-----	B	Jan-Dec	---	---	---	---	None	---	None
190: Simeroi-----	B	Jan-Dec	---	---	---	---	None	---	None
191: Simeroi, cold-----	B	Jan-Dec	---	---	---	---	None	---	None
Simeroi-----	B	Jan-Dec	---	---	---	---	None	---	None
192: Simeroi-----	B	Jan-Dec	---	---	---	---	None	---	None
Paint-----	D	Jan-Dec	---	---	---	---	None	---	None
Sanfelipe-----	B	Jan-Dec	---	---	---	---	None	---	None
193: Simeroi-----	B	Jan-Dec	---	---	---	---	None	---	None
Whitecloud-----	B	Jan-Dec	---	---	---	---	None	---	None
194: Skibo-----	B	Jan-Dec	---	---	---	---	None	---	None
195: Smout-----	B	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	4.0-6.0	>6.0	---	---	None	Brief	Occasional
		May	4.0-6.0	>6.0	---	---	None	Brief	Occasional
		June	4.0-6.0	>6.0	---	---	None	Brief	Occasional
Cowbone-----	D	March	0.5-1.0	>6.0	---	---	None	---	None
		April	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None

Table 15.--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
196: Smout-----	B	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	4.0-6.0	>6.0	---	---	None	Brief	Occasional
		May	4.0-6.0	>6.0	---	---	None	Brief	Occasional
		June	4.0-6.0	>6.0	---	---	None	Brief	Occasional
Yearian-----	C	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		May	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		June	0.5-1.0	>6.0	---	---	None	Brief	Occasional
197: Snowslide-----	B	Jan-Dec	---	---	---	---	None	---	None
198: Snowslide-----	B	Jan-Dec	---	---	---	---	None	---	None
199: Snowslide-----	B	Jan-Dec	---	---	---	---	None	---	None
200: Snowslide-----	B	Jan-Dec	---	---	---	---	None	---	None
Badland-----	---	Jan-Dec	---	---	---	---	None	---	None
Perreau-----	B	Jan-Dec	---	---	---	---	None	---	None
201: Snowslide-----	B	Jan-Dec	---	---	---	---	None	---	None
Farvant-----	D	Jan-Dec	---	---	---	---	None	---	None
202: Snowslide, south-----	B	Jan-Dec	---	---	---	---	None	---	None
Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
Snowslide, north-----	B	Jan-Dec	---	---	---	---	None	---	None
203: Soen-----	D	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
			<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
204: Soen-----	D	Jan-Dec	---	---	---	---	None	---	None
Justesen-----	C	Jan-Dec	---	---	---	---	None	---	None
Howcan-----	B	Jan-Dec	---	---	---	---	None	---	None
205: Sparmo-----	B	Jan-Dec	---	---	---	---	None	---	None
206: Sparmo-----	B	Jan-Dec	---	---	---	---	None	---	None
Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
207: Sparmo-----	B	Jan-Dec	---	---	---	---	None	---	None
Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
208: Sprabat-----	B	Jan-Dec	---	---	---	---	None	---	None
209: Sprabat-----	B	Jan-Dec	---	---	---	---	None	---	None
Snowslide-----	B	Jan-Dec	---	---	---	---	None	---	None
210: Struggle-----	A	Jan-Dec	---	---	---	---	None	---	None
Struggle, very stony-----	A	Jan-Dec	---	---	---	---	None	---	None
211: Surrett-----	C	Jan-Dec	---	---	---	---	None	---	None
212: Surrett-----	C	Jan-Dec	---	---	---	---	None	---	None
Nurkey-----	B	Jan-Dec	---	---	---	---	None	---	None
213: Swahlen-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
213: Packham-----	B	Jan-Dec	---	---	---	---	None	---	None
214: Swahlen-----	B	Jan-Dec	---	---	---	---	None	---	None
Yearian-----	C	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		May	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		June	0.5-1.0	>6.0	---	---	None	Brief	Occasional
215: Thosand-----	D	January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		June	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		July	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		August	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		September	1.0-2.0	>6.0	---	---	None	---	None
		October	1.0-2.0	>6.0	---	---	None	---	None
		November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
Chillybu-----	D	January	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		February	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		March	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		April	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Brief	Frequent
		May	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Brief	Frequent
		June	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Brief	Frequent
		July	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	Brief	Frequent
		August	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		September	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		October	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		November	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
		December	0.0-0.5	>6.0	0.0-0.5	Long	Frequent	---	None
216: Thosand-----	D	January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		June	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		July	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		August	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		September	1.0-2.0	>6.0	---	---	None	---	None
		October	1.0-2.0	>6.0	---	---	None	---	None
		November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None

Table 15.--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				
216: Sancrane-----	D	January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		June	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		July	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		August	1.0-2.0	>6.0	---	---	None	---	None
		September	1.0-2.0	>6.0	---	---	None	---	None
		October	1.0-2.0	>6.0	---	---	None	---	None
		November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
217: Thosand-----	D	January	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		February	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		March	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		April	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		May	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		June	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		July	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	Brief	Occasional
		August	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		September	1.0-2.0	>6.0	---	---	None	---	None
		October	1.0-2.0	>6.0	---	---	None	---	None
		November	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
		December	0.0-1.0	>6.0	0.0-1.0	Long	Frequent	---	None
Wisconsin-----	D	January	---	---	---	---	None	Brief	Frequent
		February	---	---	---	---	None	Brief	Frequent
		March	---	---	---	---	None	Brief	Frequent
		April	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
218: Threedot-----	D	April	1.0-2.0	1.5-2.5	---	---	None	---	None
		May	1.0-2.0	1.5-2.5	---	---	None	---	None
		June	1.0-2.0	1.5-2.5	---	---	None	---	None
219: Threedot-----	D	April	1.0-2.0	1.5-2.5	---	---	None	---	None
		May	1.0-2.0	1.5-2.5	---	---	None	---	None
		June	1.0-2.0	1.5-2.5	---	---	None	---	None
220: Threedot, dry-----	D	April	1.0-2.0	1.5-2.5	---	---	None	---	None
		May	1.0-2.0	1.5-2.5	---	---	None	---	None
		June	1.0-2.0	1.5-2.5	---	---	None	---	None
Threedot-----	D	April	1.0-2.0	1.5-2.5	---	---	None	---	None
		May	1.0-2.0	1.5-2.5	---	---	None	---	None
		June	1.0-2.0	1.5-2.5	---	---	None	---	None

Table 15.--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
			<i>Ft</i>	<i>Ft</i>	<i>Ft</i>				
221: Typic Cryaquepts-----	D	April	1.0-2.5	>6.0	---	---	None	---	None
		May	1.0-2.5	>6.0	---	---	None	---	None
		June	1.0-2.5	>6.0	---	---	None	---	None
222: Ureal-----	D	Jan-Dec	---	---	---	---	None	---	None
Zeebar-----	B	Jan-Dec	---	---	---	---	None	---	None
Dacont-----	B	Jan-Dec	---	---	---	---	None	---	None
223: Venum-----	D	Jan-Dec	---	---	---	---	None	---	None
Cronks-----	C	Jan-Dec	---	---	---	---	None	---	None
224: Venum-----	D	Jan-Dec	---	---	---	---	None	---	None
Rock outcrop-----	---	Jan-Dec	---	---	---	---	None	---	None
225: Venum-----	D	Jan-Dec	---	---	---	---	None	---	None
Custco-----	B	Jan-Dec	---	---	---	---	None	---	None
226: Whitecloud-----	B	Jan-Dec	---	---	---	---	None	---	None
227: Whitecloud-----	B	Jan-Dec	---	---	---	---	None	---	None
228: Whitecloud-----	B	Jan-Dec	---	---	---	---	None	---	None
Sanfelipe-----	B	Jan-Dec	---	---	---	---	None	---	None
Fadow-----	D	Jan-Dec	---	---	---	---	None	---	None
229: Whitecloud-----	B	Jan-Dec	---	---	---	---	None	---	None
Simeroi-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
230: Whiteknob-----	B	Jan-Dec	---	---	---	---	None	---	None
231: Whiteknob-----	B	Jan-Dec	---	---	---	---	None	---	None
Leadore-----	B	Jan-Dec	---	---	---	---	None	---	None
232: Whiteknob-----	B	Jan-Dec	---	---	---	---	None	---	None
Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
233: Wiggleton-----	B	Jan-Dec	---	---	---	---	None	---	None
234: Wiggleton-----	B	Jan-Dec	---	---	---	---	None	---	None
Copperbasin-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		April	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.5	>6.0	---	---	None	Brief	Occasional
235: Wimpey-----	C	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		April	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.0	>6.0	---	---	None	Brief	Occasional
		July	1.5-3.0	>6.0	---	---	None	---	None
Zeph-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		April	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		May	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		June	0.5-1.0	>6.0	---	---	None	Brief	Occasional
Ajax-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		April	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		May	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		June	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		July	0.5-1.0	>6.0	---	---	None	---	None

Table 15.--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
236: Windcoat-----	D	Jan-Dec	---	---	---	---	None	---	None
237: Windcoat-----	D	Jan-Dec	---	---	---	---	None	---	None
Fandow-----	D	Jan-Dec	---	---	---	---	None	---	None
238: Wiskisprings-----	D	January	---	---	---	---	None	Brief	Frequent
		February	---	---	---	---	None	Brief	Frequent
		March	---	---	---	---	None	Brief	Frequent
		April	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
Biglost-----	C	March	---	---	---	---	None	Brief	Frequent
		April	---	---	---	---	None	Brief	Frequent
		May	2.5-4.5	>6.0	---	---	None	Brief	Frequent
		June	2.5-4.5	>6.0	---	---	None	Brief	Frequent
		July	2.5-4.5	>6.0	---	---	None	---	None
		August	2.5-4.5	>6.0	---	---	None	---	None
		September	2.5-4.5	>6.0	---	---	None	---	None
239: Wiskisprings-----	D	January	---	---	---	---	None	Brief	Frequent
		February	---	---	---	---	None	Brief	Frequent
		March	---	---	---	---	None	Brief	Frequent
		April	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		May	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		June	0.5-1.0	>6.0	---	---	None	Brief	Frequent
		July	0.5-1.0	>6.0	---	---	None	---	None
Biglost-----	C	March	---	---	---	---	None	Brief	Frequent
		April	---	---	---	---	None	Brief	Frequent
		May	2.5-4.5	>6.0	---	---	None	Brief	Frequent
		June	2.5-4.5	>6.0	---	---	None	Brief	Frequent
		July	2.5-4.5	>6.0	---	---	None	---	None
		August	2.5-4.5	>6.0	---	---	None	---	None
		September	2.5-4.5	>6.0	---	---	None	---	None
Copperbasin-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		April	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		May	1.5-3.5	>6.0	---	---	None	Brief	Occasional
		June	1.5-3.5	>6.0	---	---	None	Brief	Occasional

Table 15.--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
240: Xeric Torrifluvents-----	B		Ft	Ft	Ft				
		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
241: Yearian-----	C								
		January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	---	---	---	---	None	Brief	Occasional
		April	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		May	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		June	0.5-1.0	>6.0	---	---	None	Brief	Occasional
242: Yearian-----	C								
		April	0.5-1.0	>6.0	---	---	None	---	None
		May	0.5-1.0	>6.0	---	---	None	---	None
		June	0.5-1.0	>6.0	---	---	None	---	None
243: Zeale-----	B								
		Jan-Dec	---	---	---	---	None	---	None
Meegero-----	B								
		Jan-Dec	---	---	---	---	None	---	None
244: Zeale-----	B								
		Jan-Dec	---	---	---	---	None	---	None
Meegero-----	B								
		Jan-Dec	---	---	---	---	None	---	None
245: Zeale-----	B								
		Jan-Dec	---	---	---	---	None	---	None
Zeelnot-----	B								
		Jan-Dec	---	---	---	---	None	---	None
246: Zeebar-----	B								
		Jan-Dec	---	---	---	---	None	---	None
Nielsen-----	D								
		Jan-Dec	---	---	---	---	None	---	None
Povey-----	B								
		Jan-Dec	---	---	---	---	None	---	None
247: Zeebar-----	B								
		Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
247: Parkay-----	B	Jan-Dec	---	---	---	---	None	---	None
248: Zeebar-----	B	Jan-Dec	---	---	---	---	None	---	None
Resoot-----	C	Jan-Dec	---	---	---	---	None	---	None
249: Zeegee-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		April	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		May	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		June	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		July	0.5-1.0	>6.0	---	---	None	---	None
Ajax-----	D	January	---	---	---	---	None	Brief	Occasional
		February	---	---	---	---	None	Brief	Occasional
		March	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		April	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		May	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		June	0.5-1.0	>6.0	---	---	None	Brief	Occasional
		July	0.5-1.0	>6.0	---	---	None	---	None
250: Zeelnot-----	B	Jan-Dec	---	---	---	---	None	---	None
251: Zeelnot-----	B	Jan-Dec	---	---	---	---	None	---	None
252: Zeelnot-----	B	Jan-Dec	---	---	---	---	None	---	None
Meegernot-----	B	Jan-Dec	---	---	---	---	None	---	None
Adek-----	B	Jan-Dec	---	---	---	---	None	---	None
253: Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
254: Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
255: Zer-----	B	Jan-Dec	---	---	---	---	None	---	None

Table 15.--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
256: Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
257: Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
258: Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
259: Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
Snowslide-----	B	Jan-Dec	---	---	---	---	None	---	None
260: Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
Snowslide-----	B	Jan-Dec	---	---	---	---	None	---	None
261: Zer-----	B	Jan-Dec	---	---	---	---	None	---	None
Whiteknob-----	B	Jan-Dec	---	---	---	---	None	---	None
262: Simeroi-----	B	Jan-Dec	---	---	---	---	None	---	None
263: Water-----	---	Jan-Dec	---	---	---	---	None	---	None

Table 16.--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	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
1: Alpinepeak-----	Strongly contrasting textural stratification	20-40	---	Noncemented	0	---	Moderate	Moderate	Moderate
2: Aquents----- Riverwash.	---	---	---	---	0	---	Moderate	Moderate	Low
3: Arbus-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
4: Arco----- 5: Badland.	---	---	---	---	0	---	High	High	Low
Millhi-----	Natric	1-9	---	Noncemented	0	---	Moderate	High	High
6: Bartonflat-----	---	---	---	---	0	---	Low	High	Low
7: Bartonflat-----	---	---	---	---	0	---	Low	High	Low
8: Bartonhill-----	Strongly contrasting textural stratification	20-26	---	Noncemented	0	---	Moderate	High	Low
Whitecloud-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
9: Bayhorse, north-----	Bedrock (lithic)	12-20	---	Indurated	0	---	Low	Moderate	Low
Bayhorse, south-----	Bedrock (lithic)	12-20	---	Indurated	0	---	Low	Moderate	Low
10: Bayhorse-----	Bedrock (lithic)	12-20	---	Indurated	0	---	Low	Moderate	Low
Dawtonia-----	---	---	---	---	0	---	Low	High	Low
11: Bigflat-----	Abrupt textural change	5-10	---	Noncemented	0	---	High	High	Low
Dacont-----	---	---	---	---	0	---	Moderate	High	Low
12: Biglost-----	Strongly contrasting textural stratification	20-30	---	Noncemented	0	---	Moderate	Moderate	Low
Copperbasin-----	---	---	---	---	0	---	Low	Moderate	Low
13: Bigrant, very poorly drained-----	---	---	---	---	0	---	High	High	High
Bigrant, poorly drained	---	---	---	---	0	---	High	High	High
14: Bigrant-----	---	---	---	---	0	---	High	High	High
Thosand-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	High	High	Low
Dickeypeak-----	---	---	---	---	0	---	High	High	High
15: Blackfoot-----	---	---	---	---	0	---	High	High	Low
16: Blackfoot-----	---	---	---	---	0	---	High	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
16: Borco-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
17: Bluedome-----	Duripan	20-40	2-16	Strongly cemented	0	---	Moderate	High	Low
18: Bock-----	---	---	---	---	0	---	Moderate	High	Low
Breitenbach-----	---	---	---	---	0	---	Moderate	High	Low
19: Bock-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	High	Low
Bromaglin-----	Strongly contrasting textural stratification	14-24	---	Noncemented	0	---	Low	High	Low
20: Bockston-----	---	---	---	---	0	---	Moderate	High	Low
21: Brabas-----	---	---	---	---	0	---	Low	High	Low
Heathcoat-----	---	---	---	---	0	---	Moderate	High	Low
22: Breitenbach-----	Strongly contrasting textural stratification	30-40	---	Noncemented	0	---	Moderate	High	Low
23: Breitenbach-----	Strongly contrasting textural stratification	30-40	---	Noncemented	0	---	Moderate	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
24: Breitenbach-----	Strongly contrasting textural stratification	30-40	---	Noncemented	0	---	Moderate	High	Low
25: Bunting-----	Strongly contrasting textural stratification	14-24	---	Noncemented	0	---	Low	High	Low
26: Bunting-----	Strongly contrasting textural stratification	14-24	---	Noncemented	0	---	Low	High	Low
27: Bunting-----	Strongly contrasting textural stratification	14-24	---	Noncemented	0	---	Low	High	Low
Moffspring-----	Strongly contrasting textural stratification	20-35	---	Noncemented	0	---	Moderate	High	Low
28: Bursteadt-----	Strongly contrasting textural stratification	25-35	---	Noncemented	0	---	Low	High	Low
Tohobit-----	Strongly contrasting textural stratification	12-24	---	Noncemented	0	---	Low	High	Low
29: Busterback-----	Strongly contrasting textural stratification	20-30	---	Noncemented	0	---	Moderate	Moderate	Moderate

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
29: Wiggleton-----	Strongly contrasting textural stratification	10-18	---	Noncemented	0	---	Low	High	Low
30: Calcids-----	Bedrock (lithic)	20-72	---	Indurated	0	---	Moderate	High	Low
Badland.									
Xerolls-----	---	---	---	---	0	---	Moderate	High	Low
31: Calcids-----	Bedrock (lithic)	20-72	---	Indurated	0	---	Moderate	High	Low
Rubble land.									
Rock outcrop.									
32: Castlepeak-----	---	---	---	---	0	---	Low	Moderate	Moderate
Yankeefork-----	Strongly contrasting textural stratification	24-40	---	Noncemented	0	---	Moderate	Moderate	Moderate
33: Chamberlain-----	Strongly contrasting textural stratification	22-40	---	Noncemented	0	---	Moderate	High	Low
34: Coalkiln-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	Moderate	Low
Zeelnot-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
35: Copperbasin-----	---	---	---	---	0	---	Low	Moderate	Low
Redfish-----	Strongly contrasting textural stratification	10-22	---	Noncemented	0	---	Moderate	Moderate	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
36: Copperbasin-----	---	---	---	---	0	---	Low	Moderate	Low
Redfish-----	Strongly contrasting textural stratification	10-22	---	Noncemented	0	---	Moderate	Moderate	Low
37: Cowbone-----	Strongly contrasting textural stratification	45-60	---	Noncemented	0	---	High	High	Low
Tohobit-----	Strongly contrasting textural stratification	12-24	---	Noncemented	0	---	Low	High	Low
38: Cronks-----	---	---	---	---	0	---	Low	High	Low
Challis-----	---	---	---	---	0	---	Moderate	High	Low
39: Cronks-----	---	---	---	---	0	---	Low	High	Low
Venum-----	---	---	---	---	0	---	Low	High	Low
40: Cryolls-----	---	---	---	---	0	---	Moderate	Moderate	Low
Rubble land.									
41: Cryolls-----	Bedrock (lithic)	20-40	---	Indurated	0	---	Moderate	Moderate	Low
Rubble land.									
Rock outcrop.									
42: Cryepts-----	---	---	---	---	0	---	Moderate	Moderate	Moderate
Rubble land.									

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
42: Rock outcrop.									
43: Custco-----	---	---	---	---	0	---	Moderate	High	Low
44: Dacont-----	---	---	---	---	0	---	Moderate	High	Low
Custco-----	---	---	---	---	0	---	Moderate	High	Low
45: Dacont-----	---	---	---	---	0	---	Moderate	High	Low
Resoot-----	---	---	---	---	0	---	Moderate	High	Low
Nielsen-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Moderate	Moderate	Low
46: Dacont-----	---	---	---	---	0	---	Moderate	High	Low
Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
47: Darlington-----	Strongly contrasting textural stratification	25-35	---	Noncemented	0	---	Moderate	High	Low
Lesbut-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
48: Dawtonia-----	---	---	---	---	0	---	Low	High	Low
49: Dawtonia-----	---	---	---	---	0	---	Low	High	Low
Dawtonia, cold-----	---	---	---	---	0	---	Low	High	Low
50: Dawtonia, cold-----	---	---	---	---	0	---	Low	High	Low
Dawtonia-----	---	---	---	---	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
51: Dawtonia-----	---	---	---	---	0	---	Low	High	Low
Frailton-----	Bedrock (paralithic)	10-20	---	Moderately cemented	0	---	Low	High	Low
52: Dawtonia-----	---	---	---	---	0	---	Low	High	Low
Kehar-----	---	---	---	---	0	---	Low	High	High
Soen-----	---	---	---	---	0	---	Moderate	High	Low
53: Dawtonia-----	---	---	---	---	0	---	Low	High	Low
Rock outcrop.									
54: Dawtonia-----	---	---	---	---	0	---	Low	High	Low
Custco-----	---	---	---	---	0	---	Moderate	High	Low
55: Dawtonia-----	---	---	---	---	0	---	Low	High	Low
Dacont-----	---	---	---	---	0	---	Moderate	High	Low
56: Derwell-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	High	Low
Whitknob-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
57: Derwell-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	High	Low
Zer-----	---	---	---	---	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
57: Packmo-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	High	Low
58: Dickeypeak-----	---	---	---	---	0	---	High	High	High
Bigrant-----	---	---	---	---	0	---	High	High	High
59: Donkehill-----	Bedrock (lithic)	11-19	---	Indurated	0	---	Moderate	High	Low
60: Donkehill-----	Bedrock (lithic)	11-19	---	Indurated	0	---	Moderate	High	Low
Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
61: Donkehill-----	Bedrock (lithic)	11-19	---	Indurated	0	---	Moderate	High	Low
Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
62: Dumps, mine.									
63: Escarlo-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
Heathcoat-----	---	---	---	---	0	---	Moderate	High	Low
64: Escarlo-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
Heathcoat-----	---	---	---	---	0	---	Moderate	High	Low
65: Ezbin-----	---	---	---	---	0	---	Moderate	Moderate	Low
Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
Nielsen-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Moderate	Moderate	Low
66: Fandow-----	Duripan	10-16	1-3	Weakly cemented	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
67: Fandow-----	Duripan	10-16	1-3	Weakly cemented	0	---	Low	High	Low
Arbus-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
68: Farvant-----	Bedrock (paralithic)	10-17	---	Moderately cemented	0	---	Low	High	High
Badland.									
Gradco-----	Bedrock (paralithic)	20-40	---	Moderately cemented	0	---	Low	High	High
69: Farvant-----	Bedrock (paralithic)	10-17	---	Moderately cemented	0	---	Low	High	High
Sactus-----	Bedrock (lithic)	6-10	---	Indurated	0	---	Low	High	High
Dawtonia-----	---	---	---	---	0	---	Low	High	Low
70: Fezip-----	Strongly contrasting textural stratification	25-30	---	Noncemented	0	---	High	Moderate	Low
Lemroi-----	Strongly contrasting textural stratification	20-30	---	Noncemented	0	---	High	High	Low
Redfish-----	Strongly contrasting textural stratification	10-22	---	Noncemented	0	---	Moderate	Moderate	Low
71: Fezip-----	Strongly contrasting textural stratification	25-30	---	Noncemented	0	---	High	Moderate	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer			Subsidence		Potential for frost action	Risk of corrosion		
	Kind	Depth to top	Thickness	Hardness	Initial		Total	Uncoated steel	Concrete
		In	In		In	In			
71: Redfish-----	Strongly contrasting textural stratification	10-22	---	Noncemented	0	---	Moderate	Moderate	Low
Copperbasin-----	---	---	---	---	0	---	Low	Moderate	Low
72: Firebox-----	Strongly contrasting textural stratification	10-22	---	Noncemented	0	---	Low	Moderate	Low
73: Firebox-----	Strongly contrasting textural stratification	10-22	---	Noncemented	0	---	Low	Moderate	Low
74: Frailton-----	Bedrock (paralithic)	10-20	---	Moderately cemented	0	---	Low	High	Low
Dawtonia-----	---	---	---	---	0	---	Low	High	Low
75: Frailton-----	Bedrock (paralithic)	10-20	---	Moderately cemented	0	---	Low	High	Low
Gradco-----	Bedrock (paralithic)	20-40	---	Moderately cemented	0	---	Low	High	High
76: Friedman-----	---	---	---	---	0	---	Moderate	Moderate	Low
Reck-----	---	---	---	---	0	---	Moderate	Moderate	Low
Goldhill-----	---	---	---	---	0	---	Moderate	High	Low
77: Gaciba-----	Bedrock (lithic)	12-20	---	Indurated	0	---	Moderate	Moderate	Low
Cronks-----	---	---	---	---	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
78: Gaciba-----	Bedrock (lithic)	12-20	---	Indurated	0	---	Moderate	Moderate	Low
Dacont-----	---	---	---	---	0	---	Moderate	High	Low
79: Gany-----	High carbonates	5-10	---	Noncemented	0	---	Moderate	High	Low
80: Geemore-----	---	---	---	---	0	---	Moderate	High	Low
81: Germer-----	---	---	---	---	0	---	Low	High	High
Dawtonia-----	---	---	---	---	0	---	Low	High	Low
82: Goldaho-----	Abrupt textural change	5-10	---	Noncemented	0	---	Low	High	Low
Zer-----	---	---	---	---	0	---	Low	High	Low
83: Goldhill-----	---	---	---	---	0	---	Moderate	High	Low
Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
84: Goosebury-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Low	High	Low
85: Goosebury-----	---	---	---	---	0	---	Low	High	Low
86: Goosebury-----	---	---	---	---	0	---	Low	High	Low
Windcoat-----	Duripan	9-15	3-5	Indurated	0	---	Low	High	Low
87: Gradco-----	Bedrock (paralithic)	20-40	---	Moderately cemented	0	---	Low	High	High

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
87: Farvant-----	Bedrock (paralithic)	10-17	---	Moderately cemented	0	---	Low	High	High
88: Gradco-----	Bedrock (paralithic)	20-40	---	Moderately cemented	0	---	Low	High	High
Farvant-----	Bedrock (paralithic)	10-17	---	Moderately cemented	0	---	Low	High	High
89: Hagenbarth-----	---	---	---	---	0	---	Moderate	Moderate	Low
Brabas-----	---	---	---	---	0	---	Low	High	Low
90: Heathcoat-----	---	---	---	---	0	---	Moderate	High	Low
91: Heathcoat-----	---	---	---	---	0	---	Moderate	High	Low
Goldhill-----	---	---	---	---	0	---	Moderate	High	Low
92: Heathcoat-----	---	---	---	---	0	---	Moderate	High	Low
Soen-----	---	---	---	---	0	---	Moderate	High	Low
93: Howcan-----	---	---	---	---	0	---	Moderate	Moderate	Low
Hagenbarth-----	---	---	---	---	0	---	Moderate	Moderate	Low
Hutchley-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Moderate	High	Low
94: Hutchley-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Moderate	High	Low
Nurkey-----	---	---	---	---	0	---	Moderate	High	Low
95: Ike-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Low	High	Low
Rock outcrop.									

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
95: Jimbee-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Moderate	High	Low
96: Inferno-----	---	---	---	---	0	---	Moderate	High	Low
Grouseville-----	---	---	---	---	0	---	Moderate	High	Low
97: Jimbee-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Moderate	High	Low
Rock outcrop.									
Ike-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Low	High	Low
98: Justesen-----	---	---	---	---	0	---	Moderate	High	Low
Drage-----	---	---	---	---	0	---	Moderate	High	Low
99: Kadletz-----	---	---	---	---	0	---	Low	High	Low
100: Kehar-----	---	---	---	---	0	---	Low	High	High
101: Kehar-----	---	---	---	---	0	---	Low	High	High
Kehar, eroded-----	---	---	---	---	0	---	Low	High	High
102: Ketchum-----	---	---	---	---	0	---	Moderate	Moderate	Moderate
103: Ketchum, cold-----	---	---	---	---	0	---	Moderate	Moderate	Moderate
Ketchum-----	---	---	---	---	0	---	Moderate	Moderate	Moderate
104: Klug-----	---	---	---	---	0	---	Moderate	Moderate	Low
105: Klug-----	---	---	---	---	0	---	Moderate	Moderate	Low
Gaciba-----	Bedrock (lithic)	12-20	---	Indurated	0	---	Moderate	Moderate	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
105: Dacont-----	---	---	---	---	0	---	Moderate	High	Low
106: Klug-----	---	---	---	---	0	---	Moderate	Moderate	Low
Povey-----	---	---	---	---	0	---	Moderate	Moderate	Low
107: Klug-----	---	---	---	---	0	---	Moderate	Moderate	Low
Povey-----	---	---	---	---	0	---	Moderate	Moderate	Low
108: Klug-----	---	---	---	---	0	---	Moderate	Moderate	Low
Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
109: Lacrol-----	Abrupt textural change	5-10	---	Noncemented	0	---	Moderate	High	Low
Friedman-----	---	---	---	---	0	---	Moderate	Moderate	Low
110: Lag-----	---	---	---	---	0	---	Moderate	Moderate	Low
111: Lag-----	---	---	---	---	0	---	Moderate	Moderate	Low
112: Lag-----	---	---	---	---	0	---	Moderate	Moderate	Low
Klug-----	---	---	---	---	0	---	Moderate	Moderate	Low
113: Langer-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	Moderate	Moderate
114: Leadore-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
115: Leatherman-----	Duripan	9-15	4-17	Indurated	0	---	Moderate	High	Low
Arbus-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
116: Leatherman-----	Duripan	9-15	4-17	Indurated	0	---	Moderate	High	Low
Bluedome-----	Duripan	20-40	2-16	Strongly cemented	0	---	Moderate	High	Low
117: Lemco-----	Abrupt textural change	10-15	---	Noncemented	0	---	Moderate	Moderate	Low
Friedman-----	---	---	---	---	0	---	Moderate	Moderate	Low
118: Lemhi-----	Strongly contrasting textural stratification	20-40	---	Noncemented	0	---	High	High	Low
Copperbasin-----	---	---	---	---	0	---	Low	Moderate	Low
Lilylake-----	Strongly contrasting textural stratification	10-16	---	Noncemented	5-8	10-16	High	Moderate	Moderate
119: Lemroi-----	Strongly contrasting textural stratification	20-30	---	Noncemented	0	---	High	High	Low
Leecreek-----	Strongly contrasting textural stratification	13-22	---	Noncemented	0	---	Moderate	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
120: Lemroi-----	Strongly contrasting textural stratification	20-30	---	Noncemented	0	---	High	High	Low
Leecreek-----	Strongly contrasting textural stratification	13-22	---	Noncemented	0	---	Moderate	High	Low
Grandjean-----	Strongly contrasting textural stratification	20-36	---	Noncemented	10-18	20-36	High	Moderate	Moderate
121: Lesbut-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
122: Lillylake-----	Strongly contrasting textural stratification	10-16	---	Noncemented	5-8	10-16	High	Moderate	Moderate
Grandjean-----	Strongly contrasting textural stratification	20-36	---	Noncemented	10-18	20-36	High	Moderate	Moderate
123: Mahaffey-----	Strongly contrasting textural stratification	30-40	---	Noncemented	0	---	Moderate	High	Low
Copperbasin-----	---	---	---	---	0	---	Low	Moderate	Low
Wiskisprings-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	Moderate	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
124: Meegernot-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	High	Low
125: Meegero-----	High carbonates	5-15	---	Noncemented	0	---	Moderate	High	Low
Zeale-----	High carbonates	5-15	---	Noncemented	0	---	Moderate	High	Low
126: Millhi-----	Natric	1-9	---	Noncemented	0	---	Moderate	High	High
127: Millhi-----	Natric	1-9	---	Noncemented	0	---	Moderate	High	High
128: Millhi-----	Natric	1-9	---	Noncemented	0	---	Moderate	High	High
Millhi, eroded-----	Natric	1-9	---	Noncemented	0	---	Moderate	High	High
129: Millhi-----	Natric	1-9	---	Noncemented	0	---	Moderate	High	High
Badland.									
130: Millhi-----	Natric	1-9	---	Noncemented	0	---	Moderate	High	High
Lacrol-----	Abrupt textural change	5-10	---	Noncemented	0	---	Moderate	High	Low
131: Misfire-----	---	---	---	---	0	---	Low	High	Low
Pattee-----	---	---	---	---	0	---	Low	High	Low
Dawtonia-----	---	---	---	---	0	---	Low	High	Low
132: Mitring-----	Bedrock (paralithic)	25-35	---	Moderately cemented	0	---	Low	High	High
Holinrock-----	Bedrock (lithic)	21-35	---	Indurated	0	---	Low	High	High

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
133: Mogg-----	Bedrock (lithic)	12-20	---	Indurated	0	---	Moderate	High	Low
Dawtonia-----	---	---	---	---	0	---	Low	High	Low
134: Mooretown-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	High	Low
Blackfoot-----	---	---	---	---	0	---	High	High	Low
Borah-----	Strongly contrasting textural stratification	10-14	---	Noncemented	0	---	Low	High	Low
135: Mooretown-----	Strongly contrasting textural stratification	30-40	---	Noncemented	0	---	Moderate	High	Low
Borco-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
136: Morphey-----	Abrupt textural change	14-20	---	Noncemented	0	---	Moderate	Moderate	High
137: Morphey-----	Abrupt textural change	14-20	---	Noncemented	0	---	Moderate	Moderate	High
138: Mountainboy-----	Duripan	15-20	0.5-1	Strongly cemented	0	---	Moderate	High	Low
139: Mountainboy-----	Duripan	15-20	0.5-1	Strongly cemented	0	---	Moderate	High	Low
140: Nicholia-----	Duripan	10-20	1-3	Indurated	0	---	Moderate	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
140: Goosebury-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Low	High	Low
141: Nielsen-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Moderate	Moderate	Low
Gaciba-----	Bedrock (lithic)	12-20	---	Indurated	0	---	Moderate	Moderate	Low
142: Nitchly-----	High carbonates	2-15	---	Noncemented	0	---	Low	High	Low
Skibo-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
Rock outcrop.									
143: Nurkey-----	---	---	---	---	0	---	Moderate	High	Low
Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
Hutchley-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Moderate	High	Low
144: Nurkey-----	---	---	---	---	0	---	Moderate	High	Low
Dacont-----	---	---	---	---	0	---	Moderate	High	Low
145: Nurkey-----	---	---	---	---	0	---	Moderate	High	Low
Dacont-----	---	---	---	---	0	---	Moderate	High	Low
146: Nurkey-----	---	---	---	---	0	---	Moderate	High	Low
Dawtonia-----	---	---	---	---	0	---	Low	High	Low
147: Oxhead-----	---	---	---	---	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
148: Packham-----	Strongly contrasting textural stratification	20-35	---	Noncemented	0	---	Moderate	High	Low
149: Packham-----	Strongly contrasting textural stratification	20-35	---	Noncemented	0	---	Moderate	High	Low
Perreau-----	---	---	---	---	0	---	Moderate	High	High
150: Packmo-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	High	Low
Leadore-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
151: Packmo-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	High	Low
Whiteknob-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
152: Pahsimeroi-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
153: Pahsimeroi-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
154: Pahsimeroi-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
155: Paint-----	Duripan	11-16	2-6	Weakly cemented	0	---	Moderate	High	Low
Paint, cold-----	Duripan	11-16	2-6	Weakly cemented	0	---	Moderate	High	Low
156: Paint-----	Duripan	11-16	2-6	Weakly cemented	0	---	Moderate	High	Low
Bluedome-----	Duripan	20-40	2-16	Strongly cemented	0	---	Moderate	High	Low
157: Paint-----	Duripan	11-16	2-6	Weakly cemented	0	---	Moderate	High	Low
Whitecloud-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
158: Parkay-----	---	---	---	---	0	---	Moderate	Moderate	Low
Donkehill-----	Bedrock (lithic)	11-19	---	Indurated	0	---	Moderate	High	Low
159: Parkay-----	---	---	---	---	0	---	Moderate	Moderate	High
Nurkey-----	---	---	---	---	0	---	Moderate	High	Low
160: Parkay-----	---	---	---	---	0	---	Moderate	Moderate	Low
Nurkey-----	---	---	---	---	0	---	Moderate	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
161: Parkay-----	---	---	---	---	0	---	Moderate	Moderate	Low
Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
162: Parkay-----	---	---	---	---	0	---	Moderate	Moderate	Low
Friedman-----	---	---	---	---	0	---	Moderate	Moderate	Low
163: Pattee-----	---	---	---	---	0	---	Low	High	Low
Perreau-----	---	---	---	---	0	---	Moderate	High	High
164: Pattee-----	---	---	---	---	0	---	Low	High	Low
Perreau-----	---	---	---	---	0	---	Moderate	High	High
165: Pedoli-----	Strongly contrasting textural stratification	30-40	---	Noncemented	0	---	Moderate	High	Low
Dawtonia-----	---	---	---	---	0	---	Low	High	Low
166: Pedoli-----	Strongly contrasting textural stratification	30-40	---	Noncemented	0	---	Moderate	High	Low
Whiteknob-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
167: Penagul-----	Bedrock (paralithic)	6-10	---	Moderately cemented	0	---	Low	High	Low
Rosebriar-----	Bedrock (paralithic)	14-20	---	Moderately cemented	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
168: Perreau-----	---	---	---	---	0	---	Moderate	High	High
169: Perreau-----	---	---	---	---	0	---	Moderate	High	High
170: Perreau-----	---	---	---	---	0	---	Moderate	High	High
171: Perreau-----	---	---	---	---	0	---	Moderate	High	High
Dawtonia-----	---	---	---	---	0	---	Low	High	Low
172: Perreau-----	---	---	---	---	0	---	Moderate	High	High
Dawtonia-----	---	---	---	---	0	---	Low	High	Low
173: Perreau-----	---	---	---	---	0	---	Moderate	High	High
Pattee-----	---	---	---	---	0	---	Low	High	Low
174: Pits, gravel.									
175: Pits, mine.									
176: Povey-----	---	---	---	---	0	---	Moderate	Moderate	Low
177: Povey-----	---	---	---	---	0	---	Moderate	Moderate	Low
Klug-----	---	---	---	---	0	---	Moderate	Moderate	Low
178: Reck-----	---	---	---	---	0	---	Moderate	Moderate	Low
Threedot-----	---	---	---	---	0	---	Moderate	Moderate	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
179: Redfish-----	Strongly contrasting textural stratification	10-22	---	Noncemented	0	---	Moderate	Moderate	Moderate
Fezip-----	Strongly contrasting textural stratification	25-30	---	Noncemented	0	---	High	Moderate	Low
Lilylake-----	Strongly contrasting textural stratification	10-16	---	Noncemented	5-8	10-16	High	Moderate	Moderate
180: Resoot-----	---	---	---	---	0	---	Moderate	High	Low
Friedman-----	---	---	---	---	0	---	Moderate	Moderate	Low
181: Resoot-----	---	---	---	---	0	---	Moderate	High	Low
Friedman-----	---	---	---	---	0	---	Moderate	Moderate	Low
182: Ringle-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
183: Rock outcrop. Rubble land.									
184: Sanfelipe-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
Sanfelipe, moist-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
185: Shenon-----	---	---	---	---	0	---	Moderate	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
186: Shenon-----	---	---	---	---	0	---	Moderate	High	Low
187: Shenon-----	---	---	---	---	0	---	Moderate	High	Low
Perreau-----	---	---	---	---	0	---	Moderate	High	High
188: Shenon-----	---	---	---	---	0	---	Moderate	High	Low
Perreau-----	---	---	---	---	0	---	Moderate	High	High
189: Simeroi-----	High carbonates	2-18	---	Noncemented	0	---	Low	High	Low
190: Simeroi-----	High carbonates	2-18	---	Noncemented	0	---	Low	High	Low
191: Simeroi, cold-----	High carbonates	2-18	---	Noncemented	0	---	Low	High	Low
Simeroi-----	High carbonates	2-18	---	Noncemented	0	---	Low	High	Low
192: Simeroi-----	High carbonates	2-18	---	Noncemented	0	---	Low	High	Low
Paint-----	Duripan	11-16	2-6	Weakly cemented	0	---	Moderate	High	Low
Sanfelipe-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
193: Simeroi-----	High carbonates	2-18	---	Noncemented	0	---	Low	High	Low
Whitecloud-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
194: Skibo-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
195: Smout-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	Low	Low
Cowbone-----	Strongly contrasting textural stratification	45-60	---	Noncemented	0	---	High	High	Low
196: Smout-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	Low	Low
Yearian-----	---	---	---	---	0	---	High	High	Low
197: Snowslide-----	---	---	---	---	0	---	Low	High	Low
198: Snowslide-----	---	---	---	---	0	---	Low	High	Low
199: Snowslide-----	---	---	---	---	0	---	Low	High	Low
200: Snowslide-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	High	Low
Badland.									
Perreau-----	---	---	---	---	0	---	Moderate	High	High
201: Snowslide-----	---	---	---	---	0	---	Low	High	Low
Farvant-----	Bedrock (paralithic)	10-17	---	Moderately cemented	0	---	Low	High	High
202: Snowslide, south-----	---	---	---	---	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
202: Zer-----	---	---	---	---	0	---	Low	High	Low
Snowslide, north-----	---	---	---	---	0	---	Low	High	Low
203: Soen-----	---	---	---	---	0	---	Moderate	High	Low
204: Soen-----	---	---	---	---	0	---	Moderate	High	Low
Justesen-----	---	---	---	---	0	---	Moderate	High	Low
Howcan-----	---	---	---	---	0	---	Moderate	Moderate	Low
205: Sparmo-----	---	---	---	---	0	---	Low	High	High
206: Sparmo-----	---	---	---	---	0	---	Low	High	High
Zer-----	---	---	---	---	0	---	Low	High	Low
207: Sparmo-----	---	---	---	---	0	---	Low	High	High
Zer-----	---	---	---	---	0	---	Low	High	Low
208: Sprabat-----	---	---	---	---	0	---	Low	High	High
209: Sprabat-----	---	---	---	---	0	---	Low	High	High
Snowslide-----	---	---	---	---	0	---	Low	High	Low
210: Struggle-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	Moderate	Moderate
Struggle, very stony---	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	Moderate	Moderate

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
211: Surrett-----	Duripan	21-35	4-15	Weakly cemented	0	---	Moderate	High	Low
212: Surrett-----	Duripan	21-35	4-15	Weakly cemented	0	---	Moderate	High	Low
Nurkey-----	---	---	---	---	0	---	Moderate	High	Low
213: Swahlen-----	---	---	---	---	0	---	Moderate	Moderate	Low
Packham-----	Strongly contrasting textural stratification	20-35	---	Noncemented	0	---	Moderate	High	Low
214: Swahlen-----	---	---	---	---	0	---	Moderate	Moderate	Low
Yearian-----	---	---	---	---	0	---	High	High	Low
215: Thosand-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	High	High	Low
Chillybu-----	Strongly contrasting textural stratification	25-50	---	Noncemented	12-14	30-40	High	High	Moderate
216: Thosand-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	High	High	Low
San crane-----	Strongly contrasting textural stratification	20-35	---	Noncemented	0	---	High	High	Moderate

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
217: Thosand-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	High	High	Low
Wiskisprings-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	Moderate	Low
218: Threedot-----	---	---	---	---	0	---	Moderate	Moderate	Low
219: Threedot-----	---	---	---	---	0	---	Moderate	Moderate	Low
220: Threedot, dry-----	---	---	---	---	0	---	Moderate	Moderate	Low
Threedot-----	---	---	---	---	0	---	Moderate	Moderate	Low
221: Typic Cryaquepts-----	---	---	---	---	0	---	High	High	Low
222: Ureal-----	Bedrock (paralithic)	10-20	---	Moderately cemented	0	---	Moderate	Moderate	Low
Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
Dacont-----	---	---	---	---	0	---	Moderate	High	Low
223: Venum-----	---	---	---	---	0	---	Low	High	Low
Cronks-----	---	---	---	---	0	---	Low	High	Low
224: Venum-----	---	---	---	---	0	---	Low	High	Low
Rock outcrop.									
225: Venum-----	---	---	---	---	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
225: Custco-----	---	---	---	---	0	---	Moderate	High	Low
226: Whitecloud-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
227: Whitecloud-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
228: Whitecloud-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
Sanfelipe-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
Fandow-----	Duripan	10-16	1-3	Weakly cemented	0	---	Low	High	Low
229: Whitecloud-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
Simeroi-----	High carbonates	2-18	---	Noncemented	0	---	Low	High	Low
230: Whiteknob-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
231: Whiteknob-----	Strongly contrasting textural stratification	8-10	---	Noncemented	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
231: Leadore-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
232: Whitknob-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
Zer-----	---	---	---	---	0	---	Low	High	Low
233: Wiggleton-----	Strongly contrasting textural stratification	10-18	---	Noncemented	0	---	Low	High	Low
234: Wiggleton-----	Strongly contrasting textural stratification	10-18	---	Noncemented	0	---	Low	Moderate	Low
Copperbasin-----	---	---	---	---	0	---	Low	Moderate	Low
235: Wimpey-----	Strongly contrasting textural stratification	20-35	---	Noncemented	0	---	High	High	Low
Zeph-----	---	---	---	---	0	---	Moderate	High	Moderate
Ajax-----	---	---	---	---	0	---	High	High	Low
236: Windcoat-----	Duripan	9-15	3-5	Indurated	0	---	Low	High	Low
237: Windcoat-----	Duripan	9-15	3-5	Indurated	0	---	Low	High	Low
Fandow-----	Duripan	10-16	1-3	Weakly cemented	0	---	Low	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
238: Wiskisprings-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	Moderate	Low
Biglost-----	Strongly contrasting textural stratification	20-30	---	Noncemented	0	---	Moderate	Moderate	Low
239: Wiskisprings-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	Moderate	Low
Biglost-----	Strongly contrasting textural stratification	20-30	---	Noncemented	0	---	Moderate	Moderate	Low
Copperbasin-----	---	---	---	---	0	---	Low	Moderate	Low
240: Xeric Torrifluvents---	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Low	High	Low
241: Yearian-----	---	---	---	---	0	---	High	High	Low
242: Yearian-----	---	---	---	---	0	---	High	High	Low
243: Zeale-----	High carbonates	5-15	---	Noncemented	0	---	Moderate	High	Low
Meegero-----	High carbonates	5-15	---	Noncemented	0	---	Moderate	High	Low
244: Zeale-----	High carbonates	5-15	---	Noncemented	0	---	Moderate	High	Low
Meegero-----	High carbonates	5-15	---	Noncemented	0	---	Moderate	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
245: Zeale-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
Zeelnot-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
246: Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
Nielsen-----	Bedrock (lithic)	10-20	---	Indurated	0	---	Moderate	Moderate	Low
Povey-----	---	---	---	---	0	---	Moderate	Moderate	Low
247: Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
Parkay-----	---	---	---	---	0	---	Moderate	Moderate	Low
248: Zeebar-----	---	---	---	---	0	---	Moderate	Moderate	Low
Resoot-----	---	---	---	---	0	---	Moderate	High	Low
249: Zeegee-----	Strongly contrasting textural stratification	35-45	---	Noncemented	0	---	High	High	Low
Ajax-----	---	---	---	---	0	---	High	High	Low
250: Zeelnot-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
251: Zeelnot-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
252: Zeelnot-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low
Meegernot-----	Strongly contrasting textural stratification	40-60	---	Noncemented	0	---	Moderate	High	Low
Adek-----	High carbonates	2-15	---	Noncemented	0	---	Moderate	High	Low

Table 16.--Soil Features--Continued

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	In		In	In			
253: Zer-----	---	---	---	---	0	---	Low	High	Low
254: Zer-----	---	---	---	---	0	---	Low	High	Low
255: Zer-----	---	---	---	---	0	---	Low	High	Low
256: Zer-----	---	---	---	---	0	---	Low	High	Low
257: Zer-----	---	---	---	---	0	---	Low	High	Low
258: Zer-----	Strongly contrasting textural stratification	20-40	---	Noncemented	0	---	Moderate	High	Low
259: Zer-----	---	---	---	---	0	---	Low	High	Low
Snowslide-----	---	---	---	---	0	---	Low	High	Low
260: Zer-----	---	---	---	---	0	---	Low	High	Low
Snowslide-----	---	---	---	---	0	---	Low	High	Low
261: Zer-----	---	---	---	---	0	---	Low	High	Low
Whiteknob-----	Strongly contrasting textural stratification	10-20	---	Noncemented	0	---	Low	High	Low
262: Simeroi-----	High carbonates	2-18	---	Noncemented	0	---	Low	High	Low
263: Water.									

Table 17.--Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series)

Soil name	Family or higher taxonomic class
Adek-----	Loamy-skeletal, carbonatic Xeric Eutrocryepts
Ajax-----	Fine, smectitic, calcareous, frigid Cumulic Vertic Endoaquolls
Alpinepeak-----	Loamy-skeletal, mixed, superactive Oxyaquic Eutrocryepts
Aquents-----	Aquents
Arbus-----	Sandy-skeletal, carbonatic Xeric Calcicryids
Arco-----	Fine-silty, mixed, superactive, frigid Aquic Calcixerolls
Bartonflat-----	Sandy-skeletal, mixed, frigid Calcic Haploxerolls
Bartonhill-----	Loamy-skeletal, carbonatic, frigid Pachic Calcixerolls
Bayhorse-----	Loamy-skeletal, mixed, superactive, frigid Lithic Xeric Haplargids
Bigflat-----	Fine, smectitic, frigid Aridic Palexerolls
Biglost-----	Coarse-loamy over sandy or sandy-skeletal, mixed, superactive Aquic Cumulic Haplocryolls
Bigrant-----	Fine-loamy, mixed, superactive, calcareous Calcic Cryaquolls
Blackfoot-----	Fine-loamy, mixed, superactive, frigid Fluvaquentic Haploxerolls
*Blackfoot-----	Fine-loamy, mixed, superactive, frigid Torrifluventic Haploxerolls
Blue dome-----	Coarse-loamy, carbonatic Xereptic Petrocryids
Bock-----	Coarse-loamy, mixed, superactive, frigid Calcic Haploxerolls
Bockston-----	Fine-loamy, mixed, superactive, frigid Aridic Calcixerolls
Borah-----	Sandy-skeletal, mixed, frigid Typic Calcicryolls
Borco-----	Sandy-skeletal, mixed, frigid Torrifluventic Haploxerolls
Brabas-----	Fine, smectitic Inceptic Haplocryalls
Breitenbach-----	Loamy-skeletal, mixed, superactive, frigid Calcic Haploxerolls
Bromaglin-----	Sandy-skeletal, mixed, frigid Calcic Haploxerolls
Bunting-----	Sandy-skeletal, mixed, frigid Calcic Haploxerolls
Bursteadt-----	Coarse-loamy, mixed, superactive, frigid Pachic Calcixerolls
Busterback-----	Loamy-skeletal, mixed, superactive Pachic Haplocryolls
Calcids-----	Calcids
Castlepeak-----	Sandy-skeletal, mixed Typic Cryorthents
Challis-----	Clayey-skeletal, smectitic, frigid Calcic Argixerolls
Chamberlain-----	Loamy-skeletal, mixed, superactive Xeric Argicryolls
Chillybu-----	Loamy-skeletal, mixed, euc Terric Cryosaprists
Coalkiln-----	Loamy-skeletal, carbonatic Pachic Calcicryolls
Copperbasin-----	Sandy-skeletal, mixed Aquic Haplocryolls
Cowbone-----	Coarse-loamy, mixed, superactive, frigid Aeric Calcicryolls
Cronks-----	Clayey-skeletal, smectitic, frigid Calcic Argixerolls
Cryepts-----	Cryepts
Cryolls-----	Cryolls
Custco-----	Loamy-skeletal, mixed, superactive, frigid Calcic Argixerolls
Dacont-----	Loamy-skeletal, mixed, superactive, frigid Calcic Argixerolls
Darlington-----	Loamy-skeletal, mixed, superactive, frigid Calcic Haploxerolls
Dawtonia-----	Loamy-skeletal, mixed, superactive, frigid Xeric Calcicryids
Derwell-----	Coarse-loamy, mixed, superactive, frigid Durinodic Xeric Haplocalcids
Dickeypeak-----	Coarse-loamy, mixed, superactive, frigid Aquic Haplocalcids
Donkehill-----	Loamy-skeletal, mixed, superactive Lithic Argicryolls
Drage-----	Loamy-skeletal, mixed, superactive, frigid Calcic Argixerolls
Escarlo-----	Fine-loamy, carbonatic Xeric Calcicryolls
Ezbin-----	Loamy-skeletal, mixed, superactive Xeric Argicryolls
Fandow-----	Loamy-skeletal, carbonatic, shallow Xereptic Petrocryids
Farvant-----	Ashy-skeletal, glassy, frigid, shallow Vitrandic Haplocalcids
Fezip-----	Sandy, mixed Cumulic Cryaquolls
Firebox-----	Sandy-skeletal, siliceous Xeric Haplocryolls
Frailton-----	Ashy-skeletal, glassy, frigid, shallow Vitrixerandic Haplocalcids
Friedman-----	Clayey-skeletal, smectitic Pachic Argicryolls
Gaciba-----	Loamy-skeletal, mixed, superactive, frigid Lithic Argixerolls
Gany-----	Loamy-skeletal, mixed, superactive Typic Calcicryolls
Geemore-----	Loamy-skeletal, mixed, superactive Pachic Argicryolls
Germer-----	Loamy-skeletal, mixed, superactive, frigid Typic Calcicryids
Goldaho-----	Fine, smectitic, frigid Vertic Paleargids
Goldhill-----	Fine, smectitic Vertic Haplocryalls
Goosebury-----	Loamy-skeletal, mixed, superactive Xeric Calcicryids

Table 17.--Classification of the Soils--Continued

Soil name	Family or higher taxonomic class
Gradco-----	Ashy-skeletal, glassy, frigid Vitrixerandic Haplocalcids
Grandjean-----	Sandy or sandy-skeletal, mixed, euic Terric Cryosapristis
Grouseville-----	Fine, smectitic Pachic Argicryolls
Hagenbarth-----	Fine-loamy, mixed, superactive Pachic Argicryolls
Heathcoat-----	Fine, smectitic Vertic Argicryolls
Holinrock-----	Loamy-skeletal, mixed, superactive, frigid Xeric Haplocalcids
Howcan-----	Loamy-skeletal, mixed, superactive, frigid Typic Argixerolls
Hutchley-----	Loamy-skeletal, mixed, superactive, frigid Lithic Argixerolls
Ike-----	Loamy-skeletal, carbonatic, frigid Lithic Xeric Haplocalcids
Inferno-----	Fine, smectitic, frigid Vertic Palexeralfs
Jimbee-----	Loamy-skeletal, carbonatic Lithic Calcicryolls
Justesen-----	Fine-loamy, mixed, superactive, frigid Calcic Argixerolls
Kadletz-----	Sandy-skeletal, mixed, frigid Typic Torriorthents
Kehar-----	Fine, smectitic, frigid Xerertic Calciargids
Ketchum-----	Loamy-skeletal, mixed, superactive Xeric Eutrocrypts
Klug-----	Loamy-skeletal, mixed, superactive Xeric Haplocryolls
Lacrol-----	Fine, smectitic, frigid Vertic Palexerolls
Lag-----	Loamy-skeletal, mixed, superactive Xeric Haplocryolls
Langer-----	Sandy-skeletal, mixed Xeric Haplocryolls
Leadore-----	Sandy-skeletal, mixed, frigid Xeric Haplocalcids
Leatherman-----	Loamy-skeletal, carbonatic, shallow Duric Xeric Petrocryids
Leecreek-----	Sandy-skeletal, mixed Fluvaquentic Cryaquepts
Lemco-----	Clayey-skeletal, smectitic Abruptic Argicryolls
Lemhi-----	Fine-loamy over sandy or sandy-skeletal, mixed, superactive Cumulic Cryaquolls
Lemroi-----	Loamy-skeletal, mixed, superactive Typic Cryaquolls
Lesbut-----	Sandy-skeletal, mixed, frigid Calcic Haploxerolls
Lilylake-----	Sandy-skeletal, mixed Histic Cryaquepts
Mahaffey-----	Loamy-skeletal, mixed, superactive Typic Cryaquolls
Meegernot-----	Loamy-skeletal, mixed, superactive Calcic Pachic Haplocryolls
Meegero-----	Loamy-skeletal, carbonatic Pachic Calcicryolls
Millhi-----	Fine, smectitic, frigid Vertic Natrargids
Misfire-----	Loamy-skeletal, mixed, superactive, frigid Xeric Haplocalcids
Mitring-----	Loamy-skeletal, mixed, superactive, frigid Typic Haplocalcids
Moffspring-----	Fine-loamy, mixed, superactive, frigid Pachic Argixerolls
Mogg-----	Loamy-skeletal, mixed, superactive, frigid Lithic Xeric Haplocalcids
Mooretown-----	Coarse-loamy, mixed, superactive, frigid Cumulic Haploxerolls
Morphey-----	Fine, smectitic, frigid Xerertic Argialbolls
Mountainboy-----	Loamy-skeletal, carbonatic, shallow Typic Duricryolls
Nicholia-----	Loamy, carbonatic, shallow Duric Xeric Petrocryids
Nielsen-----	Loamy-skeletal, mixed, superactive Lithic Argicryolls
Nitchly-----	Loamy-skeletal, carbonatic Xeric Calcicryids
Nurkey-----	Loamy-skeletal, mixed, superactive Xeric Argicryolls
Oxhead-----	Ashy, glassy, frigid Vitrixerandic Haplocalcids
Packham-----	Loamy-skeletal, mixed, superactive, frigid Xeric Haplocambids
Packmo-----	Loamy-skeletal, mixed, superactive, frigid Xeric Haplocalcids
Pahsimeroi-----	Sandy-skeletal, siliceous, frigid Xeric Haplocambids
Paint-----	Loamy-skeletal, carbonatic, frigid, shallow Xerertic Haplodurids
Parkay-----	Loamy-skeletal, mixed, superactive Pachic Argicryolls
Pattee-----	Coarse-silty, mixed, superactive, frigid Sodic Xeric Haplocambids
Pedoli-----	Fine-loamy, mixed, superactive, frigid Xeric Haplargids
Penagul-----	Clayey-skeletal, smectitic, frigid, shallow Typic Haplargids
Perreau-----	Fine-loamy, mixed, superactive, frigid Xeric Calciargids
Povey-----	Loamy-skeletal, mixed, superactive Pachic Haplocryolls
Reck-----	Clayey-skeletal, smectitic Vertic Haplocryalfs
Redfish-----	Sandy-skeletal, mixed Typic Cryaquolls
Resoot-----	Clayey-skeletal, smectitic Vertic Argicryolls
Ringle-----	Sandy-skeletal, carbonatic, frigid Typic Haplocalcids
Rosebriar-----	Clayey-skeletal, smectitic, frigid, shallow Xeric Haplargids
Sactus-----	Loamy-skeletal, mixed, superactive, calcareous, frigid Lithic Torriorthents
Sancrane-----	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, calcareous Typic Cryaquepts
Sanfelipe-----	Loamy-skeletal, carbonatic, frigid Aridic Calcixerolls
Shenon-----	Fine-loamy, mixed, superactive, frigid Calciargidic Argixerolls

Table 17.--Classification of the Soils--Continued

Soil name	Family or higher taxonomic class
Simeroi-----	Loamy-skeletal, carbonatic, frigid Xeric Haplocalcids
Skibo-----	Loamy-skeletal, carbonatic Xeric Calcicryolls
Smout-----	Sandy-skeletal, mixed, frigid Torrifluventic Haploxerolls
Snowslide-----	Loamy-skeletal, mixed, superactive, frigid Typic Haplocalcids
Soen-----	Fine, smectitic, frigid Calcic Argixerolls
Sparmo-----	Coarse-loamy, mixed, superactive, frigid Xeric Haplocalcids
Sprabat-----	Coarse-loamy, mixed, superactive, frigid Typic Haplocalcids
Struggle-----	Sandy-skeletal, mixed Xeric Eutrocrypts
Surrett-----	Loamy-skeletal, mixed, superactive Typic Duricryolls
Swahlen-----	Loamy-skeletal, mixed, superactive, frigid Aridic Haploxerolls
Thosand-----	Fine-loamy, mixed, superactive, calcareous Calcic Cryaquolls
Threedot-----	Clayey-skeletal, smectitic Oxyaquic Argicryolls
Tohobit-----	Sandy-skeletal, mixed, frigid Aeric Calciaquolls
Typic Cryaquepts-----	Typic Cryaquepts
Ureal-----	Ashy-skeletal, glassy, frigid, shallow Vitritorrandic Haploxerolls
Venum-----	Clayey-skeletal, smectitic, frigid Xeric Haplargids
Whitecloud-----	Sandy-skeletal, carbonatic, frigid Xeric Haplocalcids
Whiteknob-----	Sandy-skeletal, mixed, frigid Xeric Haplocalcids
Wiggleton-----	Sandy-skeletal, mixed Xeric Haplocryolls
Wimpey-----	Clayey over sandy or sandy-skeletal, smectitic over mixed, calcareous, frigid Cumulic Endoaquolls
Windcoat-----	Loamy, carbonatic, shallow Duric Xeric Petrocryids
Wiskisprings-----	Fine-loamy, mixed, superactive Cumulic Cryaquolls
Xeric Torrifluvents-----	Xeric Torrifluvents
Xerolls-----	Xerolls
Yankeefork-----	Loamy-skeletal, mixed, superactive Xeric Eutrocrypts
Yearian-----	Loamy-skeletal, mixed, superactive, frigid Fluvaquentic Endoaquolls
Zeale-----	Loamy-skeletal, carbonatic Xeric Calcicryolls
Zeebar-----	Loamy-skeletal, mixed, superactive Xeric Argicryolls
Zeegee-----	Fine-silty, mixed, superactive, frigid Typic Endoaquolls
Zeelnot-----	Loamy-skeletal, carbonatic Xeric Calcicryolls
Zeph-----	Sandy-skeletal, mixed, frigid Aeric Fluvaquents
Zer-----	Loamy-skeletal, mixed, superactive, frigid Xeric Haplocalcids

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