

USDA United States
Department of
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Natural
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In cooperation with
United States
Department of
Agriculture, Forest
Service; United States
Department of
Interior, Bureau of Land
Management and
Bureau of Indian Affairs;
and University of
Nevada Agricultural
Experiment Station

Soil Survey of Humboldt County, Nevada, East Part Part I

How To Use This Soil Survey

This survey is divided into three parts. Part I includes general information about the survey area; descriptions of the detailed soil map units and soil series in the area; and a description of how the soils formed. Part II describes the use and management of the soils and the major soil properties. Part III includes the maps.

The **detailed soil map units** follow the general information about the survey area. These map units 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 **Index to Map Units** in Part I of this survey, which lists the map units by symbol and name and shows the page where each map unit is described.

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

A **State Soil Geographic Database (STATSGO)** is available for this survey area. This database consists of a soils map at a scale of 1 to 250,000 and descriptions of groups of associated soils. It replaces the general soil map published in older soil surveys. The map and the database can be used for multicounty planning, and map output can be tailored for a specific use. More information about the State Soil Geographic Database for this survey area, or any portion of Nevada, is available at the local office of the Natural Resources Conservation Service.

Some standards or values may change as more information is collected and analyzed. Thus, as older published interpretive information becomes outdated, new interpretive data must be generated and tailored to local conditions. This information is added to the State Subset of the **Map Unit Interpretation Record (MUIR)** database as needed. Map Unit Interpretation Records are the soil survey specific data and interpretations in the state soil survey database.

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 has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 1991. Soil names and descriptions were approved in 1992. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1991. This survey was made cooperatively by the Natural Resources Conservation Service and the United States Department of Agriculture, Forest Service; the United States Department of Interior, Bureau of Land Management; the United States Department of Interior, Bureau of Indian Affairs; and the University of Nevada Agricultural Experiment Station. It is part of the technical assistance furnished to the Sonoma Conservation District, the Kings River Conservation District, the Quinn River Conservation District, and the Paradise Valley Conservation District.

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

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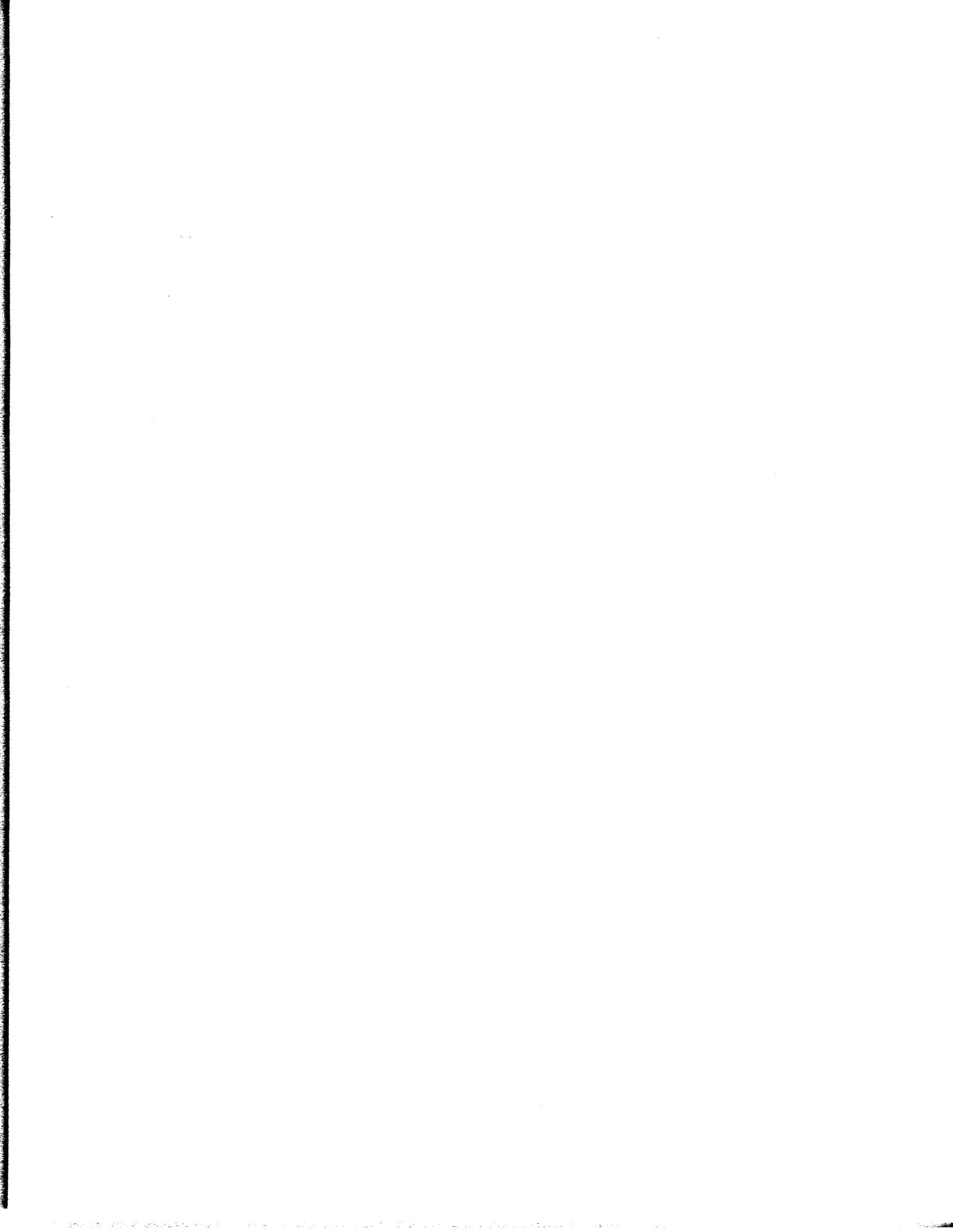
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1/ This unit is mapped at high intensity for detailed planning for farming, ranching, or urban development.



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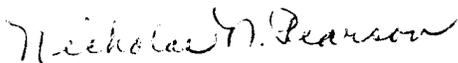
Foreword

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

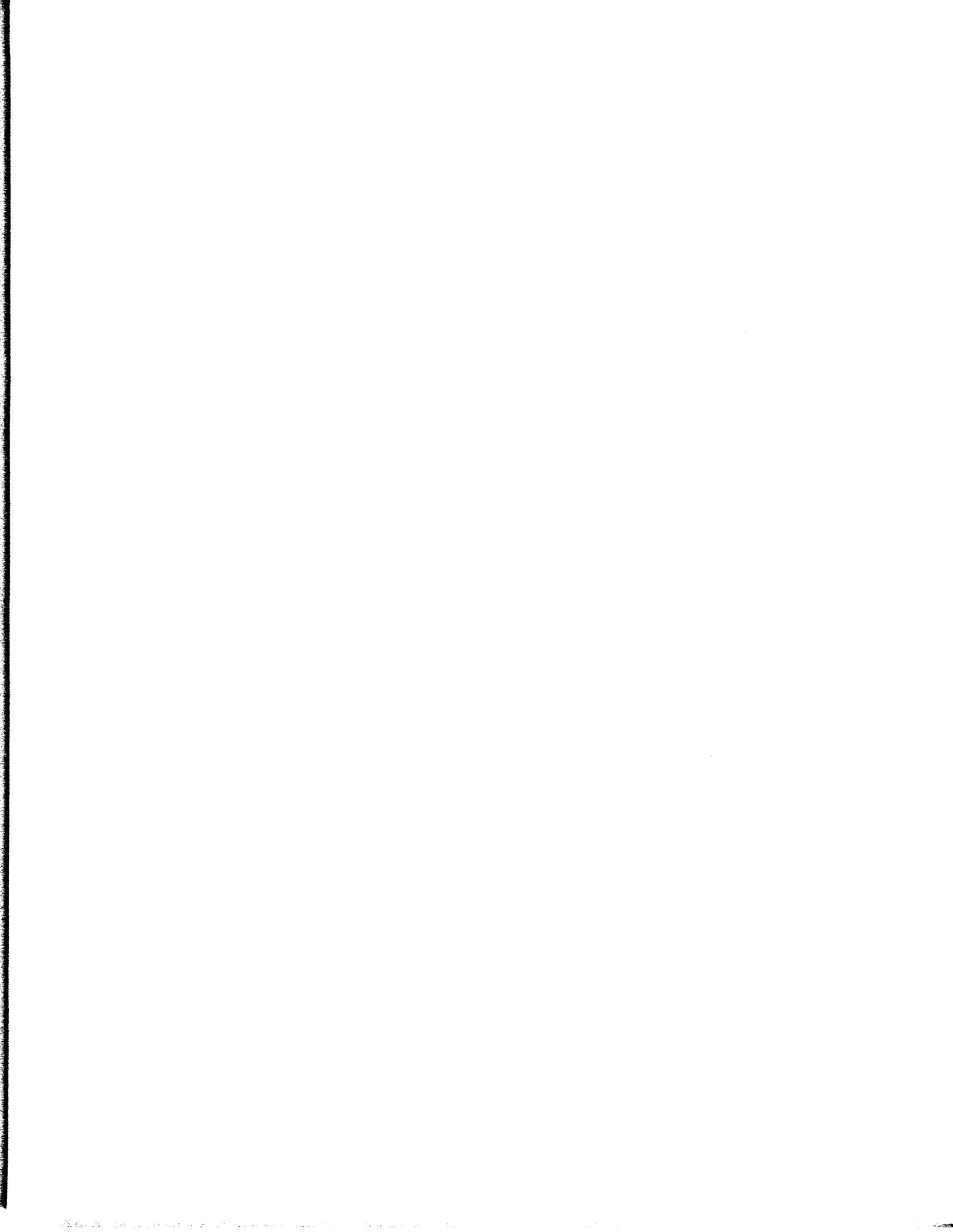
This soil survey is designed for many different users. Farmers, ranchers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use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

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

These and many other soil properties that affect land use are described in this soil survey. 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 Nevada Cooperative Extension.



Nicholas N. Pearson
State Conservationist
Natural Resources Conservation Service



Soil Survey of Humboldt County, Nevada, East Part

By David W. Denny, Natural Resources Conservation Service

Fieldwork by Thomas McKay, Harold Burlingame, Reina Weyrauch, David Denny, Mike Sucik, Terry Bowerman, Oscar Villarreal, and Terry Craig, Natural Resources Conservation Service

United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with
United States Department of Agriculture, Forest Service, United States Department of Interior, Bureau of Land Management, United States Department of Interior, Bureau of Indian Affairs, and the University of Nevada Agricultural Experiment Station

How This Survey Was Made

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

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind or segment of the landscape (14). By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landscape, soil scientists develop a concept, or model, of how the soils were formed. Thus, during

mapping, this model enables the soil scientists to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

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

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted color, texture, size, and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically.

Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses.

Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

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

This survey area was mapped at two levels of detail. At the more detailed level, map units are narrowly defined. Map unit boundaries were plotted and verified at closely spaced intervals. At the less detailed level, map units are broadly defined. Boundaries were plotted and verified at wider intervals. The narrowly defined units are indicated by an asterisk in the legend for the detailed soil

maps. The detail of mapping was selected to meet the anticipated long-term use of the survey, and the map units were designed to meet the needs for that use (18).

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 Nature of the Survey Area

This section gives general information about the survey area. It briefly discusses history; industries, transportation, and recreation; physiography, drainage, and geology; and climate.

History

This area was originally inhabited by the Paiute Indians. The first known white man to explore the area was the fur-trapper Peter Skene Ogden. Ogden first named what is now known as the Humboldt River, the "Unknown River", as he could not geographically fit it with the course of any known river. In 1844, John C. Fremont gave the river its present name; naming it after a famous geographer of the era, Baron von Humboldt.

A trading post was built at the present site of Winnemucca in 1850. Here was the only place the river could be forded; it had been found that the best route to Boise, Idaho was from this point. First known as French Ford, the trading post was named "Winnemucca" in 1864 to honor the principal Indian Chief in northern Nevada.

In 1861, the first discoveries of gold and silver caused the settlements of Humboldt City, Star City, and Unionville to spring up. By 1865, twenty-eight settlements had been started in Humboldt County.

The Central Pacific railroad came to Winnemucca in 1869. With the advent of the railroad, Winnemucca became a freight terminal and major shipping point. Cattle and sheep were driven from many areas in northern Nevada, southern Oregon, and northeastern California to this nearest railpoint. In turn, town merchants shipped in the food, clothing, lumber, and hardware needed by ranchers, miners, teamsters, and gamblers.

Winnemucca and the surrounding area grew rapidly. In the score of years following statehood in 1864, gold, silver, and cattle brought prosperity to the region. From that time until the present, the region has experienced a boom or bust economy. Mining districts have skyrocketed into prominence overnight and died as quickly the next day. It is now hard to find traces of mining towns like Gouge Eye, Davey Town, and Spring City, that once had populations in the hundreds or thousands. Cattlemen also suffered from the boom and bust economy. They grew rich when beef prices were high and the winters were mild. They went bankrupt when the hard winters starved and froze their herds to death.

Industry, Transportation, and Recreation

The survey area is sparsely populated. The main industries are mining, ranching, and farming.

Golconda, McDermitt, Orovada, Paradise Valley, Valmy, and Winnemucca, are the communities in the survey area.

Improved technology and higher precious metal prices have caused renewed interest in mining within the region. Several large gold operations are found in the southern third of the Survey Area, with additional mines scattered throughout the county developing other mineral resources. Other firms provide direct support to the mines through the manufacturing of drilling fluids, cyanide, and capital equipment.

Although the number of firms involved in the mining industry is small, this industry is the single largest employer in Humboldt County. These companies have been a major component in the economic base of the area for several years.

Other manufacturing firms include: Limestone processing, potato processing, and semiconductors.

The service and trade industries are the second largest employer in Humboldt County and have the greatest number of firms. Tourism and gaming contribute significantly to the economy with several motels and casinos in Winnemucca as well as in McDermitt and Golconda. Motel and gaming revenues are due largely to tourists and hunters.

Humboldt County is the leading agricultural county in the State of Nevada. The number of acres under cultivation averages around 100,000 for the main crops. The main crops are alfalfa hay, potatoes, grains (wheat, barley, oats) and alfalfa seed. Other crops under cultivation include mint, beans, and

lettuce. The types of livestock production are beef, some small flocks of sheep, and a couple of small hog operations.

The largest body of water in the soil survey area is Chimney Reservoir, located in the northeast part of Humboldt County.

Intermittent stream flows, supplied by spring runoff and convection type storms, make up the majority of the surface water supply source. There are few perennial streams and they are used for some pasture irrigation. However, the majority of runoff from these streamflows, due to a lack of upstream water control, eventually ends up on playas where it evaporates. Natural springs in mountain ranges throughout the survey area are also developed for stockwater purposes.

Water supply in the Kings River Valley farming area can be attributed to surface runoff and groundwater. Approximately 60% of the runoff in the area occurs as streamflow. However, with the distribution of seasonal runoff and the infiltration losses along the flow path approximately 10% arrives at points of use. The remaining 40% of runoff occurs as local sheet flow that is not available for use. Since the streamflows are an unpredictable source of water, the majority of agricultural and individual water needs are serviced with groundwater wells. The depth of these wells can vary depending on location.

Cottonwood and Martin Creeks and the Little Humboldt River provide limited surface flow for irrigation in Paradise Valley. Natural springs along the southeast side of the Santa Rosa Range are developed for irrigation as well as serving as the main water supply source for the rural community of Paradise.

The main Humboldt River supplies significant surface water to farms and ranches along this valley.

Since the streamflows are an unpredictable source of water, the majority of municipal, domestic, industrial, and agricultural water supplies are provided by groundwater wells throughout Humboldt County.

Primary highway access to Humboldt County is provided via Interstate 80 (from east to west) and by Highway 95 (from north to south). State Route 140 north of Winnemucca goes through Denio on to Lakeview or Burns, Oregon. Since the survey area is sparsely populated, most inhabited areas are remotely located and motor vehicles are the primary means of transportation. The existing road network serves most of the survey area with unpaved improved all-weather roads.

The Western Pacific Railroad and Union Pacific Railroad cross the survey area from east to west and trains, including Amtrak, make daily stops in Winnemucca. There are several trucking firms in Winnemucca providing daily freight services. Bus services are available for transportation to Reno, Salt Lake City, Utah, and Boise, Idaho. Winnemucca Municipal Airport is located southwest of town with charter and shipping services and private aircraft using the facility.

Humboldt County provides opportunities for diverse types of recreation. Fishing, boating, hunting, overnight camping, bird watching, and rock hounding are some of the many recreational activities that are available.

Several small streams provide fishing opportunities, with boating facilities also available at Chimney Creek Reservoir. Camping facilities are located at Lye Creek in the Humboldt National Forest. Hunting opportunities abound for big game species such as mule deer and pronghorn antelope and bird species such as chukar partridge and sage grouse. Due to the variety of the local geology, rock hounding may be pursued in many locations throughout Humboldt County.

Physiography, Drainage, and Geology

William Feyerabend, Private Consulting Geologist, assisted in writing this section.

Humboldt County, East Part, Soil Survey Area is in the north central part of Nevada. There are 3,899,860 acres in the survey area. The survey area is bordered on the north by Harney and Malheur counties, Oregon, on the east by Elko and Lander Counties, on the south by Lander and Pershing Counties. The western part of the county is included in Humboldt County, Nevada, West Part Soil Survey Area.

There are several important physiographic units in the survey area. The major mountain ranges include the Bilk Creek, Osgood, Santa Rosa, Sonoma, and Trout Creek Mountains. The larger valleys are the Desert, Kings River, Paradise, Pumpnickel, Quinn River, and Silver State Valleys. The Humboldt River (including the Little Humboldt River), Kings River, and Quinn River are the major drainages in the county. Elevations range from 4,100 feet in Desert Valley to over 9,700 feet in the Santa Rosa Mountains.

There are three major hydrographic regions in the survey area. The Black Rock Desert Region drains

the western part of the survey area and the Humboldt River Basin drains the eastern part. These two regions are internally drained and are part of the Great Basin physiographic region (3). The Snake River Basin drains the most northeastern corner of the survey area and is part of the Columbia Plateau physiographic region.

Water from tributaries in the Black Rock Desert Region, which includes the Quinn and Kings Rivers and Desert and Silver State Valleys, drain into the Black Rock Desert in the southwest part of Humboldt County. The waters of the Humboldt and Little Humboldt Rivers, Paradise, and Pumpnickel Valleys are in the Humboldt River Basin and eventually end up in the Humboldt Sink about 85 miles southwest of Winnemucca. The East Little Owyhee River is the major drainage of the Snake River Region.

The mostly intermittent flow of these streams is supplied by spring runoff and convection storms during summer months.

The survey area contains rocks spanning the geologic ages from the Cambrian Era, about 600 million years ago, to yesterdays stream gravels. These include most major types of rocks: sands, silts, shales, limestones, volcanic and intrusive rocks. However, these different rocks are not evenly distributed. Therefore, the area can be divided into three domains. Within each domain there are dominant rock types which influenced the soils that developed

Tertiary volcanic rocks covering an arcuate area over the northern part of the study area, especially the northwestern and northeastern quadrants, form one domain. Rhyolites and dacites form the Montana Mountains to the northwest. The adjacent Bilk Creek Mountains have almost equal parts of those rocks plus basalts and andesites. Significant areas of older Tertiary-Cretaceous granodioritic intrusive rocks are also found in the Bilk Creek Mountains. The Jackson Mountains also have extensive exposures of much older Permian ocean floor basalts and andesites. To the north, the Tertiary basalts, rhyolites, and dacites cover the northern Santa Rosa Range, and the entire northeastern corner of the county. This includes the Snowstorm Mountains and the hills north of the Hot Springs Range. Throughout this domain are isolated areas of Tertiary sediments, typically rhyolitic tuffs.

Typical soils that formed from the rhyolites and dacites in this domain are the Devada, Longcreek, Soughe, and Zymans soils at the lower elevations, and the Alyan, Croesus, Ninemile, and Tusel soils at the higher elevations. The Boger, Lunder, Reluctan, and Madeline soils are typical of the areas of basalts

granodioritic rocks are the Acrelane, Eaglerock, and Siscab soils at the lower elevations, and the Aycab, Say, and Tosp soils at the higher elevations. The areas of Tertiary rhyolitic tuffs provide the parent material for the Genaw and Puett soils at the lower elevations, and the Dutchjohn soils at higher elevations.

The study area west of Paradise Valley and Winnemucca forms another domain. It is dominated by a monotonous package of Triassic and Jurassic metamorphic and sedimentary rocks. The rocks of this domain in Humboldt County are much more abundant than rocks of any other period except Tertiary. Phyllites, quartzites, slates, shales, siltstones, cherts, limestones, and sandstones are the predominate rocks of this period. These have been intruded by bodies of Cretaceous to Tertiary granodiorites which range in size from small plugs to intrusions up to about one township in size. There are also some smaller belts of Tertiary basalts and even more restricted areas of Tertiary sediments.

The soils formed from the rocks in this domain are as varied as the geology. The typical soils that form in slate, phyllite, and related metamorphic rocks are the Sojur and Rocconda soils. The Gosumi and Erakatak soils form in siltstone, mudstone, sandstone, and related sedimentary rocks. Many soils will form in several rock types due to the similarities in physical and chemical properties of the rocks. The Mulhop soils form exclusively in limestone and dolostone, but the Puffer and Xine soils will also form in calcareous shales and sandstones. Although Bregar, Burrita, Gowjai, Havingdon, and Roca soils typically form in chert rocks, they will form in quartzite, shale, and siliceous conglomerate as well. Because of the additional influence of eolian material, such as loess and volcanic ash, as well as the other soil forming factors, some soils may form in just about any rock type within this domain. The Panlee, Tusel, Trunk, and Vanwyper soils reflect this variability in rock types.

East of Paradise Valley and Winnemucca is a different domain. This domain has been significantly affected by regional, low angle thrust faults. Rocks of different ages and origins have been juxtaposed against each other along these faults. These range from Cambrian to Permian in age. Compositionally, they cover nearly all the major rock types, from cherts and shales (Atlow and Wiskan soils) to limestones (Mulhop soils) to metavolcanic rocks (Hoot and Sumine soils). Beds of these various rocks range in thickness from just a few inches to many tens of feet. This kaleidoscope of rocks has also

been intruded by the granodiorites and has small exposures of Tertiary basalts.

The present mountainous terrain began developing about 20 million years ago. The Lower Quarternary alluvial-fan-gravels ring the mountains. The Dewar, Chiara, and Wieland soils are typical alluvial soils at the middle elevations, and the Golconda, Kortty, and Oxcorel soils are typical at lower elevations. Fine sands and silt particles were carried out and deposited in the valleys below the alluvial fans since Upper Quarternary. The Dun Glen, Enko, and Orovada soils are typical soils of this deposition. This zoning was accentuated during the glacial epochs when lakes covered much of the area, and loess and volcanic ash was deposited by the winds. Cresal and Rad soils are typical soils that are influenced by wind-blown deposits. The coarser gravels and sands were not transported much beyond the shore. Connel, McConnel, and Pumper soils are typical of these shore features. However, the lake levels fluctuated greatly over time; therefore, the pattern of coarse and fine sediments are very complex when studied in three dimensions. Soolake, Bubus, and Benin soils are examples of the diversity found in the areas of lacustrine deposition.

Climate

Table 1 gives data on temperature and precipitation for the survey area as recorded at Golconda, Kings River Valley, McDermitt, Orovada, Paradise Valley, and Winnemucca. Table 2 shows probable dates of the first freeze in fall and the last freeze in the spring. Table 3 provides data on length of growing season.

In the summer months of June, July, and August, the average daily maximum temperature is 87 degrees F° and the average daily minimum temperature is 48 degrees F°. In the winter months of December, January, and February, the average daily maximum temperature is 43 degrees F°. The average daily minimum temperature is 19 degrees F. These temperatures are a survey-wide average for all reporting stations. (McDermitt has the lowest average winter minimum of 16.6 degrees F° with Orovada, just 30 miles south, reporting an average winter minimum of 21.3 degrees F°, which is the warmest average winter minimum in Humboldt County.

Growing degree days, shown in Table 1, are equivalent to "heat units". Beginning in the spring, growing degree days accumulate by the amount the

average temperature 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 of spring and the first freeze of fall.

The total annual precipitation is 7 inches at Golconda, 8 inches at Winnemucca, 9 inches at

Kings River Valley, 10 inches at McDermitt and Paradise Valley and 11 inches at Orovada. The percentage of the total annual precipitation that falls during the months of May through September range from a low of about 28 percent at Paradise Valley to about 38 percent in McDermitt.

Detailed Soil Map Units

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

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

Most included soils have properties and behavioral characteristics similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, inclusions. They may or may not be mentioned in the map unit description. Other included soils and miscellaneous areas, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, inclusions. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The included areas of contrasting soils or miscellaneous

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

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

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit. The principal hazards and limitations to be considered in planning for specific uses are identified in the tables and narrative in Part II.

Kinds of Map Units

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, wetness, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Some 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, Adelaide silt loam, 2 to 8 percent slopes is a phase of the Adelaide 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. Batan complex 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. Alyan-Bilbo association 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.

Acreage and Extent

Table 4 gives the acreage and proportionate extent of each map unit. Other tables (see "Summary of Tables") give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils or miscellaneous areas.

Headings and Introductory Phases

In the map unit descriptions that follow, a semitabular format is used. In this format the major headings are centered in the column (for example, *Composition*). They identify the information grouped directly below them. Introducing each item of information under the centered heading is a term or phrase (for example, *Major Components*) that identifies or describes the information. Many of the centered headings and introductory terms are self-explanatory; however, some of them need further explanation and are defined in the Glossary. Explanations of the headings and introductory phrases are provided in the following paragraphs, generally in the order in which they are used in the map unit descriptions.

Composition is given for the components (soils or miscellaneous areas) identified in the name of the map unit as well as for the contrasting inclusions.

Contrasting Inclusions are areas of components that differ sufficiently in use and management from the soils or miscellaneous areas for which the map unit is named. As was explained earlier, inclusions can either be *similar* or *contrasting*. Note that in the

Composition section a single percentage is provided for a named soil and its similar inclusions because their use and management are similar.

Map Unit Setting is given for the entire map unit. This section gives the position on the landscape. The landscape positions given for the entire map unit generally are broader than those given for each component. Below the map unit setting, the position of each component and inclusion is listed, and the physiographic location of each is identified.

Major Component Description lists the characteristics of the major components. These include elevation, texture of the surface layer, drainage class, parent material, and climatic data.

Dominant Present Vegetation lists the common plants growing on each soil at the present time. The present vegetation may be similar to the potential native plant community, but in some areas it consists of other plants, either cultivated or wild, that dominate the soils in the map unit.

Ecological Site is the assigned rangeland or grazed forest land ecological site that identifies a unique potential native plant community. The plant species and production typical of each ecological site are listed by map unit in the section "Rangeland Plants and Woodland Understory." Additional information about these sites is provided under the heading "Rangeland and Grazeable Woodland Resource Management" in Part II of this publication. Further information also can be obtained from the local office of the Natural Resources Conservation Service.

Map Unit Descriptions

100--Anawalt-Vanwyper-Alyan association

Composition

Major Components

Anawalt very gravelly loam, 4 to 30 percent slopes--40 percent

Vanwyper very cobbly loam, 30 to 50 percent slopes--25 percent

Alyan stony loam, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Tusel loam, 8 to 30 percent slopes--7 percent

Inclusion 2: Vanwyper very gravelly loam, 8 to 30 percent slopes--4 percent

Inclusion 3: Rock outcrop--3 percent

Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid stony loam, drained, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Plateaus

Anawalt--Landform: Plateaus; geomorphic position: summit

Vanwyper--Landform: Plateaus; geomorphic position: backslope; aspect: south

Alyan--Landform: Plateaus; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 2--Landform: Plateaus; geomorphic position: footslope

Inclusion 3--Landform: Plateaus

Inclusion 4--Landform: Drainageways

Major Component Description

Anawalt Series

Elevation: 6,000 to 6,700 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent cobbles; 45 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Vanwyper Series

Elevation: 6,000 to 6,700 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface rock fragments: 2 percent stones and boulders; 25 percent cobbles; 20 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Alyan Series

Elevation: 6,000 to 6,700 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface rock fragments: 2 percent stones and boulders; 5 percent cobbles; 10 percent gravel

Surface layer texture: Stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Anawalt: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush

Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail

Alyan: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush

Inclusion 1: Columbia needlegrass, Letterman needlegrass, mountain brome, snowberry

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: None

Inclusion 4: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Anawalt: 025XY018NV

Vanwyper: 025XY015NV

Alyan: 025XY012NV

Inclusion 1: 025XY004NV

Inclusion 2: 025XY019NV

Inclusion 3: none

Inclusion 4: 025XY003NV

101--Anawalt-Ninemile-Alyan association

Composition

Major Components

Anawalt cobbly loam, 4 to 15 percent slopes--35 percent

Ninemile very gravelly loam, 8 to 30 percent slopes--30 percent

Alyan very gravelly loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Tusk gravelly loam, dry, 15 to 50 percent slopes--9 percent

Inclusion 2: Rock outcrop--2 percent

Inclusion 3: Vanwyper very gravelly loam, 2 to 8 percent slopes--2 percent

Inclusion 4: Fluvaquent Haploxerolls, fine-loamy, mixed, frigid gravelly loam, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus and hills

Anawalt--Landform: Plateaus; geomorphic position: summit; aspect: south

Ninemile--Landform: Plateaus; geomorphic position: backslope; aspect: north

Alyan--Landform: Plateaus; geomorphic position: summit; shape of slope: plane

Inclusion 1--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 2--Landform: Plateaus

Inclusion 3--Landform: Mountains; geomorphic position: summit; position on slope: lower

Inclusion 4--Landform: Drainageways

Major Component Description

Anawalt Series

Elevation: 5,600 to 6,500 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 15 percent cobbles; 15 percent gravel

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Ninemile Series

Elevation: 5,600 to 6,500 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface rock fragments: 40 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Alyan Series

Elevation: 5,600 to 6,500 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface rock fragments: 2 percent cobbles; 40 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Anawalt: Thurber needlegrass, Webber ricegrass, bluebunch wheatgrass, bluegrass, low sagebrush

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush

Alyan: Thurber needlegrass, basin big sagebrush, bluebunch wheatgrass, bluegrass

Inclusion 1: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 2: None

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 4: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Anawalt: 025XY018NV

Ninemile: 025XY017NV

Alyan: 025XY014NV

Inclusion 1: 025XY027NV

Inclusion 2: none

Inclusion 3: 025XY019NV

Inclusion 4: 025XY003NV

102--Anawalt-Ninemile-Tusk association

Composition

Major Components

Anawalt very gravelly loam, 8 to 30 percent slopes--40 percent

Ninemile very gravelly loam, 15 to 50 percent slopes--30 percent

Tusk gravelly loam, 15 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Vanwyper very cobbly loam, 15 to 50 percent slopes--7 percent

Inclusion 2: Sumine very cobbly loam, 30 to 50 percent slopes--4 percent

Inclusion 3: Rock outcrop--3 percent

Inclusion 4: Clementine gravelly silt loam, drained, 4 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains and foothills

Anawalt--Landform: Hills; geomorphic position: backslope; shape of slope: convex; aspect: south

Ninemile--Landform: Hills; geomorphic position: backslope; shape of slope: convex; aspect: north

Tusk--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Hills; geomorphic position: backslope; position on slope: lower

Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: south

Inclusion 3--Landform: Mountains
 Inclusion 4--Landform: Drainageways

Major Component Description

Anawalt Series

Elevation: 6,200 to 7,100 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 5 percent cobbles; 45 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Ninemile Series

Elevation: 6,200 to 7,100 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface rock fragments: 40 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Tusk Series

Elevation: 6,200 to 7,100 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 70 days
Surface rock fragments: 5 percent cobbles; 20 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Colluvium derived from volcanic rocks

Dominant Present Vegetation

Anawalt: Sandberg bluegrass, Thurber needlegrass, bottlebrush squirreltail, low sagebrush
 Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Tusk: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, snowberry
 Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 2: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 3: None
 Inclusion 4: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Anawalt: 025XY018NV
 Ninemile: 025XY017NV
 Tusk: 025XY012NV
 Inclusion 1: 025XY015NV
 Inclusion 2: 024XY029NV
 Inclusion 3: none
 Inclusion 4: 025XY003NV

106--Anawalt-Ninemile-Alyan association

Composition

Major Components

Anawalt very gravelly loam, 8 to 30 percent slopes--40 percent
 Ninemile very gravelly loam, 4 to 15 percent slopes--30 percent
 Alyan cobbly loam, 8 to 15 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Tusk loam, 30 to 50 percent slopes--5 percent
 Inclusion 2: Devada extremely gravelly loam, 8 to 30 percent slopes--5 percent
 Inclusion 3: Rock outcrop--3 percent
 Inclusion 4: Sumine cobbly loam, 30 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Anawalt--Landform: Mountains; geomorphic position: backslope; aspect: north
 Ninemile--Landform: Plateaus; geomorphic position: summit; shape of slope: convex; aspect: north
 Alyan--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 1--Landform: Plateaus; geomorphic position: backslope; aspect: north
 Inclusion 2--Landform: Plateaus; geomorphic position: shoulder
 Inclusion 3--Landform: Plateaus
 Inclusion 4--Landform: Plateaus; geomorphic position: backslope; aspect: south

Major Component Description

Anawalt Series

Elevation: 5,900 to 6,500 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 5 percent cobbles; 45 percent gravel

Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Ninemile Series

Elevation: 5,900 to 6,500 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface rock fragments: 40 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Alyan Series

Elevation: 5,900 to 6,500 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface rock fragments: 10 percent cobbles; 10 percent gravel
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Anawalt: Sandberg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush
 Ninemile: Idaho fescue, Sandberg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush
 Alyan: Idaho fescue, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 1: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, snowberry
 Inclusion 2: Sandberg bluegrass, low sagebrush
 Inclusion 3: None
 Inclusion 4: Sandberg bluegrass, basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Ecological Site

Anawalt: 023XY031NV
 Ninemile: 023XY017NV
 Alyan: 023XY041NV
 Inclusion 1: 023XY007NV
 Inclusion 2: 023XY021NV
 Inclusion 3: none

Inclusion 4: 023XY016NV

107--Anawalt-Ninemile-Tusk association, cool

Composition

Major Components

Anawalt very gravelly loam, 8 to 30 percent slopes--40 percent
 Ninemile very gravelly loam, 15 to 50 percent slopes--30 percent
 Tusk gravelly loam, moist, 15 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Vanwyper cobbly loam, south, 15 to 50 percent slopes--6 percent
 Inclusion 2: Rubble land, 8 to 50 percent slopes--4 percent
 Inclusion 3: Harcany loam, 30 to 50 percent slopes--4 percent
 Inclusion 4: Clementine silt loam, drained, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Plateaus and mountains
 Anawalt--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: south
 Ninemile--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north
 Tusk--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: north
 Inclusion 4--Landform: Drainageways

Major Component Description

Anawalt Series

Elevation: 5,800 to 6,850 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 5 percent cobbles; 45

percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Ninemile Series

Elevation: 5,800 to 6,850 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface rock fragments: 40 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Tusk Series

Elevation: 5,800 to 6,850 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 70 days

Surface rock fragments: 5 percent cobbles; 20 percent gravel

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Dominant Present Vegetation

Anawalt: Sandberg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush

Ninemile: Idaho fescue, Sandberg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush

Tusk: Idaho fescue, bluegrass, currant, mountain big sagebrush

Inclusion 1: Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail, rabbitbrush

Inclusion 2: None

Inclusion 3: Bluegrass, mountain big sagebrush, mountain brome, needlegrass, snowberry

Inclusion 4: Basin big sagebrush, basin wildrye, bluegrass, rabbitbrush, rose, willow

Ecological Site

Anawalt: 023XY031NV

Ninemile: 023XY017NV

Tusk: 023XY007NV

Inclusion 1: 024XY028NV

Inclusion 2: none

Inclusion 3: 023XY065NV

Inclusion 4: 023XY009NV

108--Anawalt-Ninemile-Alyan association, steep

Composition

Major Components

Anawalt very gravelly loam, 30 to 50 percent slopes--45 percent

Ninemile very cobbly loam, 15 to 50 percent slopes--25 percent

Alyan cobbly loam, 15 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Anawalt very gravelly loam, 8 to 30 percent slopes--5 percent

Inclusion 2: Burrita very cobbly loam, moist, 50 to 75 percent slopes--5 percent

Inclusion 3: Carstump stony loam, 15 to 30 percent slopes--3 percent

Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains

Anawalt--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: south

Ninemile--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Alyan--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: summit

Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; shape of slope: concave

Inclusion 3--Landform: Plateaus; geomorphic position: summit

Inclusion 4--Landform: Mountains

Major Component Description

Anawalt Series

Elevation: 5,500 to 6,700 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent cobbles; 45 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Ninemile Series

Elevation: 5,500 to 6,700 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Alyan Series

Elevation: 5,500 to 6,700 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface rock fragments: 10 percent cobbles; 10 percent gravel

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Anawalt: Sandberg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush

Alyan: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 1: Sandberg bluegrass, low sagebrush

Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 3: Antelope bitterbrush, mountain big sagebrush, needlegrass

Inclusion 4: None

Ecological Site

Anawalt: 023XY031NV

Ninemile: 023XY017NV

Alyan: 023XY041NV

Inclusion 1: 023XY021NV

Inclusion 2: 023XY039NV

Inclusion 3: 023XY015NV

Inclusion 4: none

110--Adelaide silt loam, 2 to 8 percent slopes

Composition

Major Components

Adelaide silt loam, 2 to 8 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Blackhawk silt loam, 2 to 8 percent slopes--3 percent

Inclusion 2: Golconda silt loam, 2 to 8 percent slopes--5 percent

Inclusion 3: Weso silt loam, 2 to 8 percent slopes--5 percent

Inclusion 4: Flue very fine sandy loam, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Adelaide--Landform: Fan remnants; geomorphic position: summit

Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Inclusion 2--Landform: Fan remnants; geomorphic position: backslope

Inclusion 3--Landform: Inset fans

Inclusion 4--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Major Component Description

Adelaide Series

Elevation: 4,100 to 5,000 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Adelaide: Sandberg bluegrass, Wyoming big sagebrush, spiny hopsage

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 4: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Adelaide: 024XY020NV
 Inclusion 1: 024XY002NV
 Inclusion 2: 024XY002NV
 Inclusion 3: 024XY002NV
 Inclusion 4: 024XY005NV

Surface rock fragments: 10 percent cobbles; 35 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

120--Bregar-Tusk association**Composition****Major Components**

Bregar very gravelly loam, 15 to 30 percent slopes--40 percent
 Tusk gravelly loam, 15 to 50 percent slopes--30 percent
 Bregar very cobbly loam, cool, 15 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Sumine very cobbly loam, 15 to 50 percent slopes--7 percent
 Inclusion 2: Carstump gravelly loam, 4 to 15 percent slopes--5 percent
 Inclusion 3: Aridic Haploxerolls, fine-loamy, mixed, frigid gravelly loam, 4 to 15 percent slopes--2 percent
 Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid loam, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains and adjacent fan piedmonts
 Bregar--Landform: Mountains; geomorphic position: backslope; shape of slope: convex
 Tusk--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Bregar--Landform: Mountains; geomorphic position: shoulder
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: south
 Inclusion 2--Landform: Fan remnants; geomorphic position: summit
 Inclusion 3--Landform: Drainageways
 Inclusion 4--Landform: Stream terraces

Major Component Description**Bregar Series**

Elevation: 6,100 to 6,600 feet
Precipitation: About 14 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days

Tusk Series

Elevation: 6,100 to 6,600 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 70 days
Surface rock fragments: 5 percent cobbles; 20 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Colluvium derived from volcanic rocks

Bregar Series

Elevation: 6,100 to 6,600 feet
Precipitation: About 14 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface rock fragments: 2 percent stones and boulders; 25 percent cobbles; 30 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Bregar: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Tusk: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, snowberry
 Bregar: Bluegrass, low sagebrush
 Inclusion 1: Thurber needlegrass, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 2: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush
 Inclusion 4: Bluegrass, sedge, tufted hairgrass

Ecological Site

Bregar: 025XY018NV
 Tusk: 025XY012NV
 Bregar: 025XY051NV
 Inclusion 1: 025XY009NV
 Inclusion 2: 025XY014NV
 Inclusion 3: 025XY003NV

Inclusion 4: 025XY005NV

122--Bregar-Tusel-Cleavage association

Composition

Major Components

Bregar very gravelly loam, dry, 4 to 15 percent slopes--35 percent

Tusel gravelly loam, dry, 8 to 30 percent slopes--35 percent

Cleavage very cobbly loam, moist, 8 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Pachic Haploxerolls, loamy-skeletal, mixed, frigid silt loam, 4 to 15 percent slopes--5 percent

Inclusion 2: Pachic Cryoborolls, loamy-skeletal, mixed very gravelly loam, 30 to 50 percent slopes--4 percent

Inclusion 3: Hackwood silt loam, wet, 8 to 30 percent slopes--3 percent

Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid, drained, 4 to 15 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains

Bregar--Landform: Mountains; geomorphic position: summit; shape of slope: convex

Tusel--Landform: Mountains; geomorphic position: backslope; shape of slope: plane

Cleavage--Landform: Mountains; geomorphic position: backslope; shape of slope: convex

Inclusion 1--Landform: Mountains; shape of slope: plane

Inclusion 2--Landform: Mountains; position on slope: upper; shape of slope: concave

Inclusion 3--Landform: Mountains; geomorphic position: footslope; shape of slope: concave

Inclusion 4--Landform: Drainageways

Major Component Description

Bregar Series

Elevation: 6,600 to 7,750 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface rock fragments: 15 percent cobbles; 30 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Tusel Series

Elevation: 6,600 to 7,750 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Cleavage Series

Elevation: 6,600 to 7,750 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 2 percent stones and boulders; 15 percent cobbles; 25 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Bregar: Idaho fescue, bluegrass, low sagebrush

Tusel: Idaho fescue, mountain big sagebrush, mountain brome, slender wheatgrass, snowberry

Cleavage: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush

Inclusion 1: Idaho fescue, mountain big sagebrush, slender wheatgrass

Inclusion 2: Needlegrass, tailcup lupine

Inclusion 3: Mountain brome, needlegrass, quaking aspen, slender wheatgrass, willow

Inclusion 4: Nevada bluegrass, Woods rose, quaking aspen, sedge, slender wheatgrass

Ecological Site

Bregar: 025XY024NV

Tusel: 025XY004NV

Cleavage: 025XY017NV

Inclusion 1: 025XY056NV

Inclusion 2: 025XY028NV

Inclusion 3: 025XY002NV

Inclusion 4: 025XY064NV

131--Benin silt loam

Composition

Major Components

Benin silt loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Batan silt loam, 0 to 2 percent slopes--7 percent

Inclusion 2: Goldrun fine sand, 0 to 2 percent slopes--3 percent

Map Unit Setting

Landscape position: Intermontane basins
Benin--Landform: Lake terraces
Inclusion 1--Landform: Drainageways
Inclusion 2--Landform: Dunes

Major Component Description

Benin Series

Elevation: 4,160 to 5,000 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Dominant Present Vegetation

Benin: Bottlebrush squirreltail, bud sagebrush, shadscale
Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale
Inclusion 2: Indian ricegrass, basin big sagebrush, hairy horsebrush

Ecological Site

Benin: 024XY002NV
Inclusion 1: 024XY003NV
Inclusion 2: 024XY001NV

133--Benin silt loam, sodic

Composition

Major Components

Benin silt loam, sodic, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Raglan silt loam, strongly saline, 0 to 2 percent slopes--5 percent
Inclusion 2: Kleck silt loam, slightly saline, 0 to 2 percent slopes--5 percent
Inclusion 3: Playas--5 percent

Map Unit Setting

Landscape position: Intermontane basins
Benin--Landform: Lake terraces
Inclusion 1--Landform: Fan skirts; position on slope: upper
Inclusion 2--Landform: Lake plains
Inclusion 3--Landform: Playas

Major Component Description

Benin Series

Elevation: 4,140 to 4,150 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks over lacustrine sediments

Dominant Present Vegetation

Benin: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale
Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale
Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood, bottlebrush squirreltail, shadscale
Inclusion 3: None

Ecological Site

Benin: 024XY003NV
Inclusion 1: 024XY003NV
Inclusion 2: 024XY022NV
Inclusion 3: none

141--Beoska-Bluewing association

Composition

Major Components

Beoska gravelly very fine sandy loam, warm, 2 to 4 percent slopes--50 percent
Bluewing very gravelly sandy loam, 2 to 4 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Trocken gravelly very fine sandy loam, 2 to 8 percent slopes--6 percent
Inclusion 2: Typic Torriorthents, sandy-skeletal, mixed, mesic very gravelly fine sandy loam, 2 to 8 percent slopes--6 percent
Inclusion 3: Beoska very gravelly loam, 2 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts
Beoska--Landform: Fan remnants; geomorphic position: summit
Bluewing--Landform: Inset fans
Inclusion 1--Landform: Beach terraces
Inclusion 2--Landform: Drainageways
Inclusion 3--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Major Component Description**Beoska Series**

Elevation: 4,450 to 4,600 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 5 percent cobbles; 25 percent gravel

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Bluewing Series

Elevation: 4,450 to 4,600 feet

Precipitation: About 7 inches

Air temperature: About 51 degrees

Frost-free season: About 130 days

Surface rock fragments: 2 percent cobbles; 40 percent gravel

Surface layer texture: Very gravelly sandy loam

Drainage class: Excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Beoska: Bailey greasewood, Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Bluewing: Bailey greasewood, Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Sandberg bluegrass, bud sagebrush, shadscale

Inclusion 2: Basin big sagebrush, basin wildrye, spiny hopsage

Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Beoska: 027XY018NV

Bluewing: 027XY018NV

Inclusion 1: 027XY013NV

Inclusion 2: 024XY041NV

Inclusion 3: 024XY002NV

143--Beoska-Broyles association**Composition****Major Components**

Beoska very fine sandy loam, moderately saline, 2 to 4 percent slopes--65 percent

Broyles very fine sandy loam, moderately saline, 0

to 2 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Oxcorel gravelly very fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 2: Whirlo gravelly very fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 3: Preble very fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Beoska--Landform: Fan remnants

Broyles--Landform: Inset fans

Inclusion 1--Landform: Fan remnants; position on slope: upper

Inclusion 2--Landform: Drainageways; position on slope: upper

Inclusion 3--Landform: Alluvial flats; position on slope: lower

Major Component Description**Beoska Series**

Elevation: 4,600 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 10 percent gravel

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Broyles Series

Elevation: 4,600 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Beoska: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale

Broyles: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Black greasewood, inland saltgrass

Ecological Site

Beoska: 024XY003NV
 Broyles: 024XY003NV
 Inclusion 1: 024XY002NV
 Inclusion 2: 024XY002NV
 Inclusion 3: 024XY011NV

144--Beoska-Dun Glen association***Composition*****Major Components**

Beoska very fine sandy loam, 0 to 2 percent slopes--55 percent
 Dun Glen very fine sandy loam, 0 to 2 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Whirlo gravelly very fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Dun Glen very fine sandy loam, moderately saline, 0 to 2 percent slopes--5 percent
 Inclusion 3: Weso very fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Beoska--Landform: Fan remnants; geomorphic position: summit
 Dun Glen--Landform: Inset fans
 Inclusion 1--Landform: Inset fans; position on slope: upper
 Inclusion 2--Landform: Inset fans; position on slope: lower
 Inclusion 3--Landform: Fan skirts; position on slope: lower

Major Component Description**Beoska Series**

Elevation: 4,600 to 5,000 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 5 percent gravel
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dun Glen Series

Elevation: 4,600 to 5,000 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Beoska: Bottlebrush squirreltail, bud sagebrush, shadscale
 Dun Glen: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale
 Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Beoska: 024XY002NV
 Dun Glen: 024XY002NV
 Inclusion 1: 024XY002NV
 Inclusion 2: 024XY003NV
 Inclusion 3: 024XY002NV

145--Beoska-Weso association***Composition*****Major Components**

Beoska gravelly very fine sandy loam, 2 to 8 percent slopes--35 percent
 Beoska gravelly very fine sandy loam, 8 to 15 percent slopes--25 percent
 Weso very fine sandy loam, 2 to 4 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Whirlo gravelly very fine sandy loam, 4 to 30 percent slopes--8 percent
 Inclusion 2: Golconda very fine sandy loam, 4 to 30 percent slopes--3 percent
 Inclusion 3: Xeric Torriorthents, loamy-skeletal, mixed (calcareous), mesic very gravelly sandy loam, 2 to 8 percent slopes--3 percent
 Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Beoska--Landform: Fan remnants; geomorphic position: summit
 Beoska--Landform: Fan remnants; geomorphic position: backslope
 Weso--Landform: Inset fans
 Inclusion 1--Landform: Fan remnants; geomorphic position: footslope

Inclusion 2--Landform: Fan remnants; position on slope: upper
 Inclusion 3--Landform: Drainageways
 Inclusion 4--Landform: Pediments

Major Component Description

Beoska Series

Elevation: 4,400 to 4,700 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 1 percent cobbles; 20 percent gravel
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Beoska Series

Elevation: 4,400 to 4,700 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 5 percent cobbles; 10 percent gravel
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Weso Series

Elevation: 4,400 to 4,700 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Beoska: Bottlebrush squirreltail, bud sagebrush, shadscale
 Beoska: Bottlebrush squirreltail, bud sagebrush, shadscale
 Weso: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 3: Wyoming big sagebrush, bluegrass, spiny hopsage
 Inclusion 4: None

Ecological Site

Beoska: 024XY002NV
 Beoska: 024XY002NV
 Weso: 024XY002NV
 Inclusion 1: 024XY002NV
 Inclusion 2: 024XY002NV
 Inclusion 3: 024XY020NV
 Inclusion 4: none

151--Blackhawk silt loam, 0 to 2 percent slopes

Composition

Major Components

Blackhawk silt loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Adelaide silt loam, 0 to 2 percent slopes--7 percent
 Inclusion 2: Dun Glen silt loam, 0 to 2 percent slopes--5 percent
 Inclusion 3: Golconda silt loam, 0 to 2 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Blackhawk--Landform: Fan remnants; geomorphic position: summit
 Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Inclusion 2--Landform: Inset fans
 Inclusion 3--Landform: Partial ballenas; geomorphic position: backslope

Major Component Description

Blackhawk Series

Elevation: 4,200 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Blackhawk: Indian ricegrass, bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Blackhawk: 024XY002NV
Inclusion 1: 024XY020NV
Inclusion 2: 024XY002NV
Inclusion 3: 024XY002NV

152--Blackhawk silt loam, 2 to 8 percent slopes

Composition

Major Components

Blackhawk silt loam, 2 to 8 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Adelaide silt loam, 2 to 8 percent slopes--7 percent
Inclusion 2: Dun Glen silt loam, 2 to 8 percent slopes--5 percent
Inclusion 3: Golconda silt loam, 2 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts
Blackhawk--Landform: Fan remnants; geomorphic position: summit
Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
Inclusion 2--Landform: Inset fans
Inclusion 3--Landform: Partial ballenas; geomorphic position: backslope

Major Component Description

Blackhawk Series

Elevation: 4,200 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Blackhawk: Indian ricegrass, bottlebrush squirreltail, bud sagebrush, shadscale
Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale
Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Blackhawk: 024XY002NV
Inclusion 1: 024XY020NV
Inclusion 2: 024XY002NV
Inclusion 3: 024XY002NV

154--Blackhawk-Golconda-Orovada association

Composition

Major Components

Blackhawk very fine sandy loam, 0 to 4 percent slopes--45 percent
Golconda silt loam, 2 to 8 percent slopes--25 percent
Orovada gravelly loam, dry, 0 to 2 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Weso very fine sandy loam, hardpan substratum, 0 to 4 percent slopes--5 percent
Inclusion 2: Chiara very fine sandy loam, dry, 0 to 2 percent slopes--5 percent
Inclusion 3: Broyles very fine sandy loam, 0 to 2 percent slopes--3 percent
Inclusion 4: Beeox very gravelly very fine sandy loam, 8 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
Blackhawk--Landform: Fan remnants; geomorphic position: summit
Golconda--Landform: Fan remnants; geomorphic position: backslope
Orovada--Landform: Inset fans
Inclusion 1--Landform: Fan remnants; position on slope: lower
Inclusion 2--Landform: Fan remnants; geomorphic position: shoulder; position on slope: upper
Inclusion 3--Landform: Fan skirts; position on slope: lower
Inclusion 4--Landform: Fan remnants; geomorphic position: backslope; position on slope: upper

Major Component Description

Blackhawk Series

Elevation: 4,250 to 5,500 feet

Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Golconda Series

Elevation: 4,250 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Orovada Series

Elevation: 4,250 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 20 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Blackhawk: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale, winterfat
 Golconda: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale
 Orovada: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: Wyoming big sagebrush, bluegrass, spiny hopsage
 Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 4: Littleleaf horsebrush, shadscale

Ecological Site

Blackhawk: 024XY002NV
 Golconda: 024XY002NV
 Orovada: 024XY020NV
 Inclusion 1: 024XY002NV
 Inclusion 2: 024XY020NV
 Inclusion 3: 024XY002NV

Inclusion 4: 024XY002NV

155--Blackhawk loamy fine sand, 0 to 2 percent slopes

Composition

Major Components

Blackhawk loamy fine sand, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Shabliss very fine sandy loam, 0 to 2 percent slopes--6 percent
 Inclusion 2: Davey loamy fine sand, 2 to 8 percent slopes--4 percent
 Inclusion 3: Shabliss very fine sandy loam, 2 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Blackhawk--Landform: Fan remnants
 Inclusion 1--Landform: Drainageways; shape of slope: concave
 Inclusion 2--Landform: Sand sheets
 Inclusion 3--Landform: Fan remnants; geomorphic position: shoulder

Major Component Description

Blackhawk Series

Elevation: 4,160 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Blackhawk: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Indian ricegrass, Wyoming big sagebrush, needleandthread
 Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Blackhawk: 024XY002NV
 Inclusion 1: 024XY005NV

Inclusion 2: 024XY017NV
 Inclusion 3: 024XY005NV

156--Blackhawk-Clurde association

Composition

Major Components

Blackhawk very fine sandy loam, 0 to 2 percent slopes--45 percent

Clurde very fine sandy loam, dry, 0 to 2 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Raglan very fine sandy loam, strongly saline, 0 to 2 percent slopes--8 percent

Inclusion 2: Valmy very fine sandy loam, 0 to 2 percent slopes--4 percent

Inclusion 3: Bloor very fine sandy loam, 0 to 2 percent slopes--2 percent

Inclusion 4: Valmy very fine sandy loam, 0 to 2 percent slopes, occasionally flooded--1 percent

Map Unit Setting

Landscape position: Fan piedmonts

Blackhawk--Landform: Fan remnants; geomorphic position: summit

Clurde--Landform: Inset fans

Inclusion 1--Landform: Inset fans; position on slope: lower

Inclusion 2--Landform: Drainageways; position on slope: lower

Inclusion 3--Landform: Mountains; geomorphic position: summit; position on slope: lower

Inclusion 4--Landform: Drainageways

Major Component Description

Blackhawk Series

Elevation: 4,150 to 4,400 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Clurde Series

Elevation: 4,150 to 4,400 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Blackhawk: Indian ricegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Clurde: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 2: Big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 3: Big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 4: Basin big sagebrush, basin wildrye, rabbitbrush

Ecological Site

Blackhawk: 024XY002NV

Clurde: 024XY020NV

Inclusion 1: 024XY003NV

Inclusion 2: 024XY022NV

Inclusion 3: 024XY022NV

Inclusion 4: 024XY006NV

157--Blackhawk-Broyles association

Composition

Major Components

Blackhawk very fine sandy loam, 2 to 8 percent slopes--50 percent

Broyles very fine sandy loam, 0 to 2 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Orovada very fine sandy loam, 0 to 2 percent slopes--8 percent

Inclusion 2: Whirlo gravelly very fine sandy loam, moist, 2 to 4 percent slopes--3 percent

Inclusion 3: Blackhawk very fine sandy loam, 8 to 15 percent slopes--2 percent

Inclusion 4: Weso very fine sandy loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Blackhawk--Landform: Fan remnants

Broyles--Landform: Inset fans

Inclusion 1--Landform: Inset fans; position on slope: upper

Inclusion 2--Landform: Fan aprons; position on slope: upper

Inclusion 3--Landform: Beach terraces

Inclusion 4--Landform: Fan skirts; position on slope: lower

Major Component Description

Blackhawk Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Broyles Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Blackhawk: Indian ricegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Broyles: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, winterfat

Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 4: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Blackhawk: 024XY002NV

Broyles: 024XY002NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY004NV

Inclusion 3: 024XY002NV

Inclusion 4: 024XY002NV

158--Blackhawk-Trocken association

Composition

Major Components

Blackhawk very gravelly fine sandy loam, 2 to 8 percent slopes--45 percent

Trocken very gravelly very fine sandy loam, 0 to 2 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: Bluewing extremely channery loamy sand, 0 to 2 percent slopes--5 percent

Inclusion 2: McConnel very gravelly fine sandy loam, 0 to 2 percent slopes--3 percent

Inclusion 3: Badland extremely gravelly silt loam, 4 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Blackhawk--Landform: Fan remnants

Trocken--Landform: Fan remnants

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Drainageways; position on slope: upper

Inclusion 3--Landform: Fan remnants; geomorphic position: backslope; position on slope: upper

Major Component Description

Blackhawk Series

Elevation: 4,100 to 4,500 feet

Precipitation: About 7 inches

Air temperature: About 50 degrees

Frost-free season: About 110 days

Surface rock fragments: 35 percent gravel

Surface layer texture: Very gravelly fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Trocken Series

Elevation: 4,100 to 4,500 feet

Precipitation: About 6 inches

Air temperature: About 52 degrees

Frost-free season: About 120 days

Surface rock fragments: 40 percent gravel

Surface layer texture: Very gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Blackhawk: Bailey greasewood, bottlebrush squirreltail, shadscale

Trocken: Bailey greasewood, Sandberg bluegrass, shadscale

Inclusion 1: Bailey greasewood, Sandberg bluegrass, shadscale

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: None

Ecological Site

Blackhawk: 027XY018NV
Trocken: 027XY018NV
Inclusion 1: 027XY018NV
Inclusion 2: 027XY008NV
Inclusion 3: none

160--Bliss fine sandy loam, 2 to 8 percent slopes

Composition

Major Components

Bliss fine sandy loam, 2 to 8 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Chiara very fine sandy loam, 2 to 8 percent slopes--5 percent
Inclusion 2: Rad fine sandy loam, 2 to 8 percent slopes--5 percent
Inclusion 3: Shabliss very fine sandy loam, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
Bliss--Landform: Fan remnants
Inclusion 1--Landform: Fan remnants; geomorphic position: shoulder; position on slope: upper
Inclusion 2--Landform: Inset fans
Inclusion 3--Landform: Drainageways; geomorphic position: summit; shape of slope: concave

Major Component Description

Bliss Series

Elevation: 4,160 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Bliss: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
Inclusion 2: Indian ricegrass, Wyoming big sagebrush, needleandthread
Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Bliss: 024XY005NV
Inclusion 1: 024XY005NV
Inclusion 2: 024XY017NV
Inclusion 3: 024XY005NV

161--Bliss-Chiara association

Composition

Major Components

Bliss very fine sandy loam, dry, 8 to 15 percent slopes--45 percent

Chiara fine sandy loam, 15 to 30 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Panlee very fine sandy loam, 15 to 50 percent slopes--10 percent
Inclusion 2: Shabliss very fine sandy loam, dry, 15 to 30 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
Bliss--Landform: Fan remnants; geomorphic position: summit
Chiara--Landform: Fan remnants; geomorphic position: backslope
Inclusion 1--Landform: Fan remnants; geomorphic position: backslope; aspect: north
Inclusion 2--Landform: Fan remnants; geomorphic position: shoulder

Major Component Description

Bliss Series

Elevation: 4,200 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Chiara Series

Elevation: 4,200 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 2 percent stones and boulders; 1 percent cobbles; *Surface layer texture:* Fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from

mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Bliss: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Chiara: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Indian ricegrass, big sagebrush, needleandthread

Inclusion 2: Wyoming big sagebrush, bluegrass, spiny hopsage

Ecological Site

Bliss: 024XY020NV

Chiara: 024XY005NV

Inclusion 1: 024XY058NV

Inclusion 2: 024XY020NV

163--Bliss-Shabliss association

Composition

Major Components

Bliss fine sandy loam, 2 to 4 percent slopes--45 percent

Shabliss fine sandy loam, 2 to 4 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: Durixerollic Camborthids, loamy-skeletal, mixed, mesic gravelly fine sandy loam, 2 to 8 percent slopes--5 percent

Inclusion 2: Rebel very fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Bliss--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Shabliss--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Inclusion 1--Landform: Inset fans; position on slope: upper

Inclusion 2--Landform: Inset fans; position on slope: lower

Major Component Description

Bliss Series

Elevation: 4,600 to 4,900 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Shabliss Series

Elevation: 4,600 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Bliss: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Shabliss: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Bliss: 024XY005NV

Shabliss: 024XY005NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY005NV

165--Bliss-Dugchip-Orovada association

Composition

Major Components

Bliss very fine sandy loam, dry, 2 to 8 percent slopes--45 percent

Dugchip very fine sandy loam, 2 to 8 percent slopes--25 percent

Orovada loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Chiara loam, 2 to 8 percent slopes--10 percent

Map Unit Setting

Landscape position: Fan piedmonts

Bliss--Landform: Fan remnants; position on slope: lower

Dugchip--Landform: Fan remnants; position on slope: upper

Orovada--Landform: Inset fans

Inclusion 1--Landform: Fan remnants; geomorphic position: shoulder; position on slope: upper

Major Component Description**Bliss Series**

Elevation: 4,200 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Dugchip Series

Elevation: 4,200 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Orovada Series

Elevation: 4,200 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Bliss: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Dugchip: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Orovada: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Bliss: 024XY020NV

Dugchip: 024XY005NV

Orovada: 024XY005NV

Inclusion 1: 024XY005NV

166--Bliss-Orovada-Shabliss association**Composition****Major Components**

Bliss fine sandy loam, dry, 2 to 8 percent slopes--40

percent

Orovada very fine sandy loam, 0 to 4 percent slopes--30 percent

Shabliss fine sandy loam, dry, 0 to 4 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Connel fine sandy loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Broyles very fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Bliss--Landform: Fan remnants; geomorphic position: backslope

Orovada--Landform: Inset fans

Shabliss--Landform: Fan remnants; geomorphic position: summit

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Fan skirts; position on slope: lower

Major Component Description**Bliss Series**

Elevation: 4,200 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Orovada Series

Elevation: 4,200 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Shabliss Series

Elevation: 4,200 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Bliss: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Orovada: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Shabliss: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Bliss: 024XY020NV
 Orovada: 024XY020NV
 Shabliss: 024XY020NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY002NV

167--Bliss-Blackhawk-Adelaide association***Composition*****Major Components**

Bliss fine sandy loam, 0 to 2 percent slopes--35 percent
 Blackhawk very fine sandy loam, 2 to 4 percent slopes--30 percent
 Adelaide very fine sandy loam, 2 to 4 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Dugchip very fine sandy loam, 2 to 4 percent slopes--5 percent
 Inclusion 2: Rebel very fine sandy loam, 0 to 2 percent slopes, rarely flooded--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Bliss--Landform: Fan remnants; position on slope: lower
 Blackhawk--Landform: Fan remnants
 Adelaide--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Inclusion 1--Landform: Fan remnants; geomorphic position: backslope; position on slope: upper
 Inclusion 2--Landform: Inset fans; position on slope: lower

Major Component Description**Bliss Series**

Elevation: 4,600 to 4,900 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees

Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Blackhawk Series

Elevation: 4,600 to 4,900 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 10 percent gravel
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Adelaide Series

Elevation: 4,600 to 4,900 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Bliss: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Blackhawk: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale, winterfat
 Adelaide: Sandberg bluegrass, Wyoming big sagebrush, spiny hopsage
 Inclusion 1: Wyoming big sagebrush
 Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood

Ecological Site

Bliss: 024XY005NV
 Blackhawk: 024XY002NV
 Adelaide: 024XY020NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY006NV

169--Bliss-Orovada association***Composition*****Major Components**

Bliss fine sandy loam, 4 to 8 percent slopes--65 percent
 Orovada loam, 2 to 4 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Shabliss very fine sandy loam, dry, 2 to 4 percent slopes--8 percent

Inclusion 2: Dugchip very fine sandy loam, 4 to 8 percent slopes--7 percent

Map Unit Setting

Landscape position: Fan piedmonts

Bliss--Landform: Fan remnants; geomorphic position: summit

Orovada--Landform: Inset fans

Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Inclusion 2--Landform: Fan remnants; geomorphic position: backslope

Major Component Description**Bliss Series**

Elevation: 4,400 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Orovada Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Bliss: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Orovada: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Bliss: 024XY005NV

Orovada: 024XY005NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY005NV

171--Bubus very fine sandy loam, moderately saline, 0 to 2 percent slopes**Composition****Major Components**

Bubus very fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Bubus fine sandy loam, 0 to 2 percent slopes, ponded--5 percent

Inclusion 2: Batan silt loam, 0 to 2 percent slopes, ponded--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Bubus--Landform: Basin-floor remnants

Inclusion 1--Landform: Basin floors; shape of slope: concave

Inclusion 2--Landform: Alluvial flats; position on slope: lower

Major Component Description**Bubus Series**

Elevation: 4,200 to 4,400 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Bubus: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Black greasewood, inland saltgrass

Inclusion 2: Black greasewood, inland saltgrass

Ecological Site

Bubus: 024XY003NV

Inclusion 1: 024XY011NV

Inclusion 2: 024XY011NV

174--Bubus-Needle Peak association**Composition****Major Components**

Bubus very fine sandy loam, 0 to 2 percent slopes--50 percent

Needle Peak silt loam, 0 to 2 percent slopes--35 percent

Contrasting Inclusions

- Inclusion 1: Wendane silt loam, 0 to 2 percent slopes--10 percent
 Inclusion 2: Argenta silt loam, drained, 0 to 2 percent slopes--3 percent
 Inclusion 3: Goldrun fine sand, slightly saline, 8 to 15 percent slopes--2 percent

Map Unit Setting

- Landscape position:* Intermontane basins
 Bubus--Landform: Basin-floor remnants
 Needle Peak--Landform: Inset fans
 Inclusion 1--Landform: Alluvial flats; position on slope: lower
 Inclusion 2--Landform: Drainageways
 Inclusion 3--Landform: Dunes

Major Component Description**Bubus Series**

- Elevation:* 4,300 to 4,500 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Needle Peak Series

- Elevation:* 4,200 to 4,400 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

- Bubus: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale
 Needle Peak: Basin big sagebrush, basin wildrye, black greasewood, rubber rabbitbrush
 Inclusion 1: Black greasewood, inland saltgrass
 Inclusion 2: Alkali sacaton, inland saltgrass, iodinebush, sickle saltbush
 Inclusion 3: Indian ricegrass, black greasewood, needleandthread

Ecological Site

- Bubus: 024XY003NV
 Needle Peak: 024XY006NV
 Inclusion 1: 024XY011NV
 Inclusion 2: 024XY010NV

Inclusion 3: 024XY066NV

178--Bubus-Preble complex, 0 to 2 percent slopes**Composition****Major Components**

- Bubus very fine sandy loam, 0 to 2 percent slopes--50 percent
 Preble fine sandy loam, 0 to 2 percent slopes--35 percent

Contrasting Inclusions

- Inclusion 1: Broyles very fine sandy loam, moderately saline, 0 to 2 percent slopes--6 percent
 Inclusion 2: Davey loamy fine sand, slightly saline, 4 to 8 percent slopes--4 percent
 Inclusion 3: Goldrun fine sand, 4 to 8 percent slopes--3 percent
 Inclusion 4: Playas--2 percent

Map Unit Setting

- Landscape position:* Intermontane basins
 Bubus--Landform: Alluvial flats; shape of slope: plane
 Preble--Landform: Alluvial flats; shape of slope: concave
 Inclusion 1--Landform: Fan skirts; position on slope: upper
 Inclusion 2--Landform: Sand sheets
 Inclusion 3--Landform: Dunes
 Inclusion 4--Landform: Playas

Major Component Description**Bubus Series**

- Elevation:* 4,200 to 4,400 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Preble Series

- Elevation:* 4,300 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Dominant Present Vegetation

Bubus: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale

Preble: Black greasewood, rubber rabbitbrush, seepweed

Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 2: Indian ricegrass, Wyoming big sagebrush, needleandthread

Inclusion 3: Indian ricegrass, basin big sagebrush, hairy horsebrush

Inclusion 4: None

Ecological Site

Bubus: 024XY003NV

Preble: 024XY011NV

Inclusion 1: 024XY003NV

Inclusion 2: 024XY017NV

Inclusion 3: 024XY001NV

Inclusion 4: none

184--Chiara-McConnel association***Composition*****Major Components**

Chiara gravelly fine sandy loam, 8 to 15 percent slopes--45 percent

McConnel fine sandy loam, 4 to 8 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Rebel fine sandy loam, moist, 4 to 8 percent slopes--8 percent

Inclusion 2: Orovada fine sandy loam, hardpan substratum, 4 to 8 percent slopes--7 percent

Map Unit Setting

Landscape position: Fan piedmonts

Chiara--Landform: Fan remnants; geomorphic position: summit

McConnel--Landform: Inset fans; position on slope: lower

Inclusion 1--Landform: Inset fans; position on slope: upper

Inclusion 2--Landform: Fan remnants; geomorphic position: footslope

Major Component Description**Chiara Series**

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface rock fragments: 5 percent cobbles; 15 percent gravel

Surface layer texture: Gravelly fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

McConnel Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 5 percent gravel

Surface layer texture: Fine sandy loam

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Chiara: Wyoming big sagebrush, bluegrass, bottlebrush squirreltail

McConnel: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Wyoming big sagebrush, bluegrass, spiny hopsage

Ecological Site

Chiara: 024XY005NV

McConnel: 024XY020NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY020NV

185--Chiara-Dacker-McConnel association***Composition*****Major Components**

Chiara very fine sandy loam, 2 to 4 percent slopes--40 percent

Dacker very fine sandy loam, 2 to 4 percent slopes--30 percent

McConnel gravelly fine sandy loam, 0 to 2 percent slopes, rarely flooded--15 percent

Contrasting Inclusions

Inclusion 1: Dewar gravelly sandy loam, 4 to 15 percent slopes--8 percent

Inclusion 2: Valmy very fine sandy loam, 0 to 2 percent slopes--7 percent

Map Unit Setting

Landscape position: Fan piedmonts

Chiara--Landform: Fan remnants; geomorphic position: summit
 Dacker--Landform: Fan remnants; geomorphic position: backslope
 McConnel--Landform: Inset fans
 Inclusion 1--Landform: Fan remnants; geomorphic position: backslope; position on slope: upper
 Inclusion 2--Landform: Drainageways; position on slope: lower

Major Component Description

Chiara Series

Elevation: 4,200 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dacker Series

Elevation: 4,300 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

McConnel Series

Elevation: 4,300 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Gravelly fine sandy loam
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Chiara: Wyoming big sagebrush
 Dacker: Thurber needlegrass, Wyoming big sagebrush, basin wildrye, bluebunch wheatgrass, bluegrass
 McConnel: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Big sagebrush, black greasewood, bottlebrush squirreltail

Ecological Site

Chiara: 024XY005NV
 Dacker: 025XY019NV
 McConnel: 024XY005NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY022NV

186--Chiara-Hunnton association

Composition

Major Components

Chiara very fine sandy loam, 2 to 4 percent slopes--55 percent
 Hunnton very fine sandy loam, 8 to 15 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Orovada fine sandy loam, hardpan substratum, 2 to 4 percent slopes--10 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Chiara--Landform: Fan remnants; geomorphic position: summit
 Hunnton--Landform: Fan remnants; geomorphic position: backslope
 Inclusion 1--Landform: Inset fans

Major Component Description

Chiara Series

Elevation: 4,200 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Hunnton Series

Elevation: 4,200 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 25 percent gravel
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Chiara: Sandberg bluegrass, Thurber needlegrass,

Wyoming big sagebrush, bottlebrush squirreltail
 Hunnton: Sandberg bluegrass, Thurber needlegrass,
 Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Wyoming big sagebrush, bottlebrush
 squirreltail

Ecological Site

Chiara: 024XY005NV
 Hunnton: 024XY005NV
 Inclusion 1: 024XY005NV

187--Chiara-Boger association

Composition

Major Components

Chiara gravelly loam, 2 to 4 percent slopes--45
 percent
 Boger gravelly very fine sandy loam, 4 to 15 percent
 slopes--30 percent
 Chiara very fine sandy loam, 0 to 4 percent slopes--
 15 percent

Contrasting Inclusions

Inclusion 1: Flue very fine sandy loam, 2 to 4
 percent slopes--6 percent
 Inclusion 2: Orovada gravelly loam, 0 to 2 percent
 slopes--3 percent
 Inclusion 3: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Plateaus
 Chiara--Landform: Plateaus; geomorphic position:
 summit
 Boger--Landform: Plateaus; geomorphic position:
 backslope
 Chiara--Landform: Plateaus; geomorphic position:
 summit; position on slope: upper
 Inclusion 1--Landform: Plateaus; geomorphic
 position: footslope; position on slope: lower
 Inclusion 2--Landform: Inset fans
 Inclusion 3--Landform: Plateaus

Major Component Description

Chiara Series

Elevation: 4,500 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 5 percent cobbles; 15
 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from

mixed rocks, loess and volcanic ash

Boger Series

Elevation: 4,500 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 110 days
Surface rock fragments: 20 percent gravel
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from volcanic rocks

Chiara Series

Elevation: 4,500 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
 mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Chiara: Sandberg bluegrass, Thurber needlegrass,
 Wyoming big sagebrush, bottlebrush squirreltail
 Boger: Sandberg bluegrass, Thurber needlegrass,
 Wyoming big sagebrush, bottlebrush squirreltail
 Chiara: Thurber needlegrass, Wyoming big
 sagebrush, basin wildrye, bluebunch wheatgrass,
 bluegrass
 Inclusion 1: Wyoming big sagebrush, bottlebrush
 squirreltail
 Inclusion 2: Wyoming big sagebrush, bottlebrush
 squirreltail
 Inclusion 3: None

Ecological Site

Chiara: 024XY005NV
 Boger: 024XY005NV
 Chiara: 025XY019NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY005NV
 Inclusion 3: none

188--Chiara association

Composition

Major Components

Chiara very cobbly very fine sandy loam, 4 to 15
 percent slopes--45 percent
 Chiara cobbly silt loam, 2 to 4 percent slopes--40
 percent

Contrasting Inclusions

Inclusion 1: Goosel very fine sandy loam, 2 to 4 percent slopes--10 percent

Inclusion 2: Boger cobbly very fine sandy loam, 2 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Plateaus

Chiara--Landform: Plateaus; geomorphic position: backslope

Chiara--Landform: Plateaus; geomorphic position: summit

Inclusion 1--Landform: Plateaus; geomorphic position: backslope; position on slope: upper

Inclusion 2--Landform: Plateaus; geomorphic position: summit; position on slope: upper

Major Component Description**Chiara Series**

Elevation: 4,800 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface rock fragments: 2 percent stones and boulders; 15 percent cobbles; 25 percent gravel

Surface layer texture: Very cobbly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Chiara Series

Elevation: 4,800 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Cobbly silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Chiara: Thurber needlegrass, Wyoming big sagebrush, basin wildrye, bluebunch wheatgrass, bluegrass

Chiara: Wyoming big sagebrush

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Chiara: 025XY019NV

Chiara: 025XY019NV

Inclusion 1: 025XY019NV

Inclusion 2: 024XY005NV

190--Beeox-Oxcorel association**Composition****Major Components**

Beeox cobbly silt loam, 2 to 4 percent slopes--50 percent

Oxcorel gravelly silt loam, 2 to 4 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Snapp cobbly silt loam, 2 to 8 percent slopes--8 percent

Inclusion 2: McConnel very gravelly very fine sandy loam, 2 to 8 percent slopes, rarely flooded--4 percent

Inclusion 3: Golconda gravelly silt loam, stony, 2 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts

Beeox--Landform: Fan remnants; position on slope: lower; shape of slope: plane

Oxcorel--Landform: Fan remnants; position on slope: upper; shape of slope: convex

Inclusion 1--Landform: Fan remnants; geomorphic position: toeslope; shape of slope: concave

Inclusion 2--Landform: Inset fans

Inclusion 3--Landform: Fan remnants; geomorphic position: summit; shape of slope: convex

Major Component Description**Beeox Series**

Elevation: 4,200 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface rock fragments: 10 percent cobbles; 5 percent gravel

Surface layer texture: Cobbly silt loam

Drainage class: Moderately well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Oxcorel Series

Elevation: 4,200 to 5,500 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 1 percent cobbles; 30 percent gravel

Surface layer texture: Gravelly silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Beeox: Bottlebrush squirreltail, bud sagebrush, shadscale

Oxcorel: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Beeox: 024XY002NV

Oxcorel: 024XY002NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY005NV

Inclusion 3: 024XY002NV

191--Beeox-Connel association

Composition

Major Components

Beeox very fine sandy loam, 0 to 2 percent slopes--65 percent

Connel gravelly fine sandy loam, 0 to 2 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Golconda silt loam, 0 to 2 percent slopes--7 percent

Inclusion 2: Flue silt loam, 0 to 2 percent slopes--5 percent

Inclusion 3: Raglan very fine sandy loam, strongly saline, 0 to 2 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts

Beeox--Landform: Fan remnants; geomorphic position: summit

Connel--Landform: Drainageways

Inclusion 1--Landform: Mountains; geomorphic position: summit; position on slope: upper

Inclusion 2--Landform: Fan remnants; position on slope: upper

Inclusion 3--Landform: Inset fans

Major Component Description

Beeox Series

Elevation: 4,200 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Moderately well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Connel Series

Elevation: 4,200 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface rock fragments: 20 percent gravel

Surface layer texture: Gravelly fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Beeox: Bud sagebrush, shadscale

Connel: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 3: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Beeox: 024XY002NV

Connel: 024XY020NV

Inclusion 1: 024XY002NV

Inclusion 2: 024XY020NV

Inclusion 3: 024XY003NV

192--Beeox-Bliss association

Composition

Major Components

Beeox very fine sandy loam, 2 to 8 percent slopes--50 percent

Bliss very fine sandy loam, dry, 4 to 15 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: McConnel cobbly fine sandy loam, 2 to 8 percent slopes--9 percent

Inclusion 2: Pumper gravelly fine sandy loam, 2 to 8 percent slopes--4 percent

Inclusion 3: McConnel very gravelly fine sandy loam, 2 to 8 percent slopes, rarely flooded--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Beeox--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Bliss--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Inclusion 1--Landform: Inset fans

Inclusion 2--Landform: Beach terraces

Inclusion 3--Landform: Drainageways

Major Component Description**Beeox Series**

Elevation: 4,200 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Moderately well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Bliss Series

Elevation: 4,200 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Beeox: Indian ricegrass, Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Bliss: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 2: Indian ricegrass, bud sagebrush, shadscale

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Beeox: 024XY002NV

Bliss: 024XY020NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY002NV

Inclusion 3: 024XY005NV

200--Davey loamy fine sand, moderately saline, 2 to 4 percent slopes**Composition****Major Components**

Davey loamy fine sand, moderately saline, 2 to 4 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Goldrun fine sand, 4 to 8 percent slopes--5 percent

Inclusion 2: Broyles fine sandy loam, moderately saline, 0 to 2 percent slopes--3 percent

Inclusion 3: Bubus fine sandy loam, moderately saline, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Davey--Landform: Sand sheets

Inclusion 1--Landform: Dunes

Inclusion 2--Landform: Fan skirts

Inclusion 3--Landform: Alluvial flats

Major Component Description**Davey Series**

Elevation: 4,200 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Davey: Indian ricegrass, Wyoming big sagebrush, black greasewood

Inclusion 1: Indian ricegrass, basin big sagebrush, hairy horsebrush

Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 3: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Davey: 024XY022NV

Inclusion 1: 024XY001NV

Inclusion 2: 024XY003NV

Inclusion 3: 024XY003NV

201--Davey loamy fine sand, 2 to 8 percent slopes***Composition*****Major Components**

Davey loamy fine sand, 2 to 8 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Goldrun fine sand, 4 to 15 percent slopes--6 percent

Inclusion 2: Sodhouse cobbly very fine sandy loam, 0 to 4 percent slopes--4 percent

Inclusion 3: Valmy very fine sandy loam, 0 to 2 percent slopes--3 percent

Inclusion 4: Laped very cobbly fine sandy loam, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Davey--Landform: Sand sheets

Inclusion 1--Landform: Dunes

Inclusion 2--Landform: Fan remnants

Inclusion 3--Landform: Inset fans

Inclusion 4--Landform: Pediments; position on slope: upper

Major Component Description**Davey Series**

Elevation: 4,200 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread

Inclusion 1: Indian ricegrass, basin big sagebrush, hairy horsebrush

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 4: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Davey: 024XY017NV

Inclusion 1: 024XY001NV

Inclusion 2: 024XY002NV

Inclusion 3: 024XY022NV

Inclusion 4: 024XY002NV

202--Davey loamy fine sand, 0 to 2 percent slopes***Composition*****Major Components**

Davey loamy fine sand, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Goldrun fine sand, 2 to 4 percent slopes--6 percent

Inclusion 2: Weso very fine sandy loam, 0 to 2 percent slopes--4 percent

Map Unit Setting

Landscape position: Fan piedmonts

Davey--Landform: Sand sheets

Inclusion 1--Landform: Dunes

Inclusion 2--Landform: Fan skirts; position on slope: upper

Major Component Description**Davey Series**

Elevation: 4,160 to 4,400 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread

Inclusion 1: Indian ricegrass, basin big sagebrush, hairy horsebrush

Inclusion 2: Bud sagebrush, shadscale

Ecological Site

Davey: 024XY017NV

Inclusion 1: 024XY001NV

Inclusion 2: 024XY002NV

203--Davey-Goldrun association***Composition*****Major Components**

Davey loamy fine sand, 2 to 4 percent slopes--60 percent

Goldrun fine sand, 4 to 15 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Connel gravelly fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 2: Isolde fine sand, 4 to 15 percent slopes--5 percent

Inclusion 3: Orovada loamy fine sand, 4 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Davey--Landform: Sand sheets

Goldrun--Landform: Dunes

Inclusion 1--Landform: Beach terraces

Inclusion 2--Landform: Dunes; position on slope: lower

Inclusion 3--Landform: Fan remnants

Major Component Description

Davey Series

Elevation: 4,160 to 4,400 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Goldrun Series

Elevation: 4,160 to 4,400 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Eolian sand

Dominant Present Vegetation

Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread

Goldrun: Indian ricegrass, basin big sagebrush, hairy horsebrush, needleandthread

Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 2: Indian ricegrass, fourwing saltbush, hairy horsebrush, needleandthread

Inclusion 3: Indian ricegrass, Wyoming big sagebrush, needleandthread

Ecological Site

Davey: 024XY017NV

Goldrun: 024XY001NV

Inclusion 1: 024XY020NV

Inclusion 2: 027XY023NV

Inclusion 3: 024XY017NV

204--Davey-Blackhawk association

Composition

Major Components

Davey loamy fine sand, 2 to 8 percent slopes--60 percent

Blackhawk loamy fine sand, 2 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Hawsley fine sand, 2 to 8 percent slopes--5 percent

Inclusion 2: Puett very gravelly loam, 4 to 30 percent slopes--5 percent

Inclusion 3: Shabliss fine sandy loam, dry, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Davey--Landform: Sand sheets

Blackhawk--Landform: Fan remnants

Inclusion 1--Landform: Sand sheets; position on slope: lower

Inclusion 2--Landform: Pediments; geomorphic position: backslope

Inclusion 3--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Major Component Description

Davey Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Blackhawk Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread

Blackhawk: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Indian ricegrass, fourwing saltbush, needleandthread, spiny hopsage

Inclusion 2: Indian ricegrass, Wyoming big sagebrush, spiny hopsage

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Davey: 024XY017NV

Blackhawk: 024XY002NV

Inclusion 1: 024XY055NV

Inclusion 2: 024XY045NV

Inclusion 3: 024XY020NV

205--Davey-Hawsley association***Composition*****Major Components**

Davey loamy fine sand, 2 to 8 percent slopes--45 percent

Hawsley loamy sand, 2 to 8 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Trocken stony fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 2: Beoska gravelly very fine sandy loam, dry, 2 to 4 percent slopes--5 percent

Inclusion 3: Beoska gravelly loam, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Davey--Landform: Sand sheets; shape of slope: concave

Hawsley--Landform: Sand sheets; shape of slope: convex

Inclusion 1--Landform: Beach terraces

Inclusion 2--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Inclusion 3--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Major Component Description**Davey Series**

Elevation: 4,200 to 4,500 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Hawsley Series

Elevation: 4,200 to 4,500 feet

Precipitation: About 7 inches

Air temperature: About 50 degrees

Frost-free season: About 120 days

Surface layer texture: Loamy sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread, spiny hopsage

Hawsley: Indian ricegrass, fourwing saltbush, needleandthread, shadscale, spiny hopsage

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Bailey greasewood, bottlebrush squirreltail, shadscale

Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Davey: 024XY017NV

Hawsley: 024XY055NV

Inclusion 1: 024XY002NV

Inclusion 2: 027XY019NV

Inclusion 3: 024XY002NV

206--Davey-Broyles-Dun Glen association***Composition*****Major Components**

Davey loamy fine sand, 2 to 4 percent slopes--35 percent

Broyles very fine sandy loam, moderately saline, 0 to 2 percent slopes--35 percent

Dun Glen very fine sandy loam, 0 to 2 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Bubus fine sandy loam, moderately saline, 0 to 2 percent slopes--10 percent

Map Unit Setting

Landscape position: Intermontane basins

Davey--Landform: Sand sheets

Broyles--Landform: Fan skirts; position on slope: upper

Dun Glen--Landform: Fan skirts; position on slope: lower

Inclusion 1--Landform: Alluvial flats; position on slope: lower

Major Component Description

Davey Series

Elevation: 4,300 to 4,700 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Broyles Series

Elevation: 4,300 to 4,700 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dun Glen Series

Elevation: 4,300 to 4,700 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread

Broyles: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale

Dun Glen: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Davey: 024XY017NV

Broyles: 024XY003NV

Dun Glen: 024XY002NV

Inclusion 1: 024XY003NV

207--Davey-Pumper association

Composition

Major Components

Davey loamy fine sand, 2 to 4 percent slopes--45 percent

Pumper sandy loam, 2 to 4 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: McConnel very cobbly loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Hawsley loamy sand, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Davey--Landform: Lagoons

Pumper--Landform: Longshore bars (relict)

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Sand sheets

Major Component Description

Davey Series

Elevation: 4,200 to 4,500 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Pumper Series

Elevation: 4,200 to 4,500 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Sandy loam

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread

Pumper: Indian ricegrass, bottlebrush squirreltail, bud sagebrush, shadscale, spiny hopsage

Inclusion 1: Basin big sagebrush, basin wildrye, spiny hopsage

Inclusion 2: Indian ricegrass, fourwing saltbush, needleandthread, spiny hopsage

Ecological Site

Davey: 024XY017NV
 Pumper: 024XY002NV
 Inclusion 1: 024XY041NV
 Inclusion 2: 024XY055NV

208--Davey fine sandy loam, 0 to 2 percent slopes**Composition****Major Components**

Davey fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Connel fine sandy loam, 0 to 2 percent slopes--6 percent
 Inclusion 2: McConnell gravelly fine sandy loam, 0 to 2 percent slopes--2 percent
 Inclusion 3: Valmy fine sandy loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
Davey--Landform: Fan skirts
Inclusion 1--Landform: Beach terraces
Inclusion 2--Landform: Drainageways
Inclusion 3--Landform: Fan skirts; position on slope: lower

Major Component Description**Davey Series**

Elevation: 4,200 to 4,400 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Davey: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage
 Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 3: Big sagebrush, black greasewood, bottlebrush squirreltail

Ecological Site

Davey: 024XY020NV
 Inclusion 1: 024XY020NV

Inclusion 2: 024XY020NV
 Inclusion 3: 024XY022NV

210--Flue-Connel association**Composition****Major Components**

Flue silt loam, 0 to 2 percent slopes--65 percent
 Connel gravelly fine sandy loam, 0 to 2 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Hunnton very fine sandy loam, 2 to 4 percent slopes--5 percent
 Inclusion 2: Clementine silt loam, drained, 0 to 2 percent slopes--5 percent
 Inclusion 3: Bliss fine sandy loam, 2 to 4 percent slopes--3 percent
 Inclusion 4: Wieland very fine sandy loam, 8 to 16 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
Flue--Landform: Fan remnants; geomorphic position: summit
Connel--Landform: Inset fans
Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
Inclusion 2--Landform: Drainageways
Inclusion 3--Landform: Fan remnants; geomorphic position: shoulder; position on slope: upper
Inclusion 4--Landform: Fan remnants; geomorphic position: backslope; position on slope: upper; aspect: north

Major Component Description**Flue Series**

Elevation: 4,500 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Connel Series

Elevation: 4,400 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 100 days
Surface rock fragments: 20 percent gravel
Surface layer texture: Gravelly fine sandy loam
Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Flue: Sandberg bluegrass, Wyoming big sagebrush, bud sagebrush, spiny hopsage
 Connel: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Basin big sagebrush, basin wildrye, rubber rabbitbrush
 Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 4: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Flue: 024XY020NV
 Connel: 024XY020NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 025XY003NV
 Inclusion 3: 024XY005NV
 Inclusion 4: 024XY005NV

211--Flue-Golconda-Snapp association

Composition

Major Components

Flue very fine sandy loam, dry, 2 to 4 percent slopes--35 percent
 Golconda silt loam, 2 to 4 percent slopes--35 percent
 Snapp very fine sandy loam, dry, 4 to 15 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Connel gravelly fine sandy loam, 0 to 2 percent slopes, frequently flooded--8 percent
 Inclusion 2: Orovada fine sandy loam, 0 to 2 percent slopes--3 percent
 Inclusion 3: Bliss fine sandy loam, dry, 0 to 2 percent slopes--2 percent
 Inclusion 4: Flue gravelly very fine sandy loam, 2 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Flue--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Golconda--Landform: Fan remnants; geomorphic position: summit; position on slope: lower
 Snapp--Landform: Fan remnants; geomorphic position: backslope

Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Inset fans
 Inclusion 3--Landform: Fan remnants; geomorphic position: shoulder; position on slope: upper
 Inclusion 4--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Major Component Description

Flue Series

Elevation: 4,500 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 5 percent gravel
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Golconda Series

Elevation: 4,500 to 5,000 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Snapp Series

Elevation: 4,500 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Flue: Sandberg bluegrass, Wyoming big sagebrush, bud sagebrush, spiny hopsage
 Golconda: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale
 Snapp: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Basin big sagebrush, basin wildrye, spiny hopsage
 Inclusion 2: Wyoming big sagebrush, bluegrass, spiny hopsage
 Inclusion 3: Wyoming big sagebrush, bluegrass, spiny hopsage
 Inclusion 4: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Flue: 024XY020NV
 Golconda: 024XY002NV
 Snapp: 024XY020NV
 Inclusion 1: 024XY041NV
 Inclusion 2: 024XY020NV
 Inclusion 3: 024XY020NV
 Inclusion 4: 024XY005NV

212--Flue-Orovada association***Composition*****Major Components**

Flue silt loam, 2 to 4 percent slopes--50 percent
 Orovada very fine sandy loam, 2 to 4 percent
 slopes--35 percent

Contrasting Inclusions

Inclusion 1: Bliss very fine sandy loam, dry, 0 to 2
 percent slopes--5 percent
 Inclusion 2: Orovada fine sandy loam, 8 to 16
 percent slopes--5 percent
 Inclusion 3: Orovada very fine sandy loam, 0 to 2
 percent slopes, occasionally flooded--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Flue--Landform: Fan remnants; geomorphic position:
 summit
 Orovada--Landform: Fan aprons
 Inclusion 1--Landform: Fan remnants; geomorphic
 position: summit; position on slope: lower
 Inclusion 2--Landform: Fan remnants; geomorphic
 position: backslope
 Inclusion 3--Landform: Drainageways

Major Component Description**Flue Series**

Elevation: 4,500 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 5 percent gravel
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
 mixed rocks, loess and volcanic ash

Orovada Series

Elevation: 4,400 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
 mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Flue: Sandberg bluegrass, Wyoming big sagebrush,
 bud sagebrush, spiny hopsage
 Orovada: Sandberg bluegrass, Wyoming big
 sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Wyoming big sagebrush, bluegrass,
 spiny hopsage
 Inclusion 2: Wyoming big sagebrush, bottlebrush
 squirreltail, spiny hopsage
 Inclusion 3: Basin big sagebrush, basin wildrye,
 black greasewood, rubber rabbitbrush

Ecological Site

Flue: 024XY020NV
 Orovada: 024XY020NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY020NV
 Inclusion 3: 024XY006NV

213--Flue-Puett association***Composition*****Major Components**

Flue silt loam, 4 to 15 percent slopes--60 percent
 Puett very gravelly loam, 8 to 30 percent slopes--25
 percent

Contrasting Inclusions

Inclusion 1: Soughe gravelly very fine sandy loam,
 dry, 8 to 30 percent slopes--8 percent
 Inclusion 2: Beeox cobbly very fine sandy loam, 2 to
 8 percent slopes--3 percent
 Inclusion 3: Connel very fine sandy loam, 0 to 2
 percent slopes, occasionally flooded--2 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Flue--Landform: Fan remnants; geomorphic position:
 summit
 Puett--Landform: Hills; geomorphic position:
 backslope
 Inclusion 1--Landform: Hills; geomorphic position:
 backslope; position on slope: upper
 Inclusion 2--Landform: Fan remnants; position on
 slope: lower
 Inclusion 3--Landform: Inset fans
 Inclusion 4--Landform: Hills

Major Component Description**Flue Series**

Elevation: 4,500 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 5 percent gravel

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Puett Series

Elevation: 4,500 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface rock fragments: 5 percent cobbles; 35 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from tuffaceous rocks

Dominant Present Vegetation

Flue: Sandberg bluegrass, Wyoming big sagebrush, bud sagebrush, spiny hopsage

Puett: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, shadscale

Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Basin big sagebrush, basin wildrye, black greasewood

Inclusion 4: None

Ecological Site

Flue: 024XY020NV

Puett: 024XY045NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY002NV

Inclusion 3: 024XY006NV

Inclusion 4: none

215--Flue-Snapp association**Composition****Major Components**

Flue gravelly loam, 2 to 8 percent slopes--40 percent

Snapp very fine sandy loam, 2 to 4 percent slopes--30 percent

Snapp very cobbly very fine sandy loam, 8 to 15 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Chiara gravelly very fine sandy loam, 2 to 4 percent slopes--6 percent

Inclusion 2: Wieland cobbly loam, 8 to 16 percent slopes--4 percent

Inclusion 3: McConnel very gravelly loamy fine sand, 0 to 2 percent slopes, frequently flooded--3 percent

Inclusion 4: Golconda silt loam, 2 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Flue--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Snapp--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Snapp--Landform: Fan remnants; geomorphic position: backslope

Inclusion 1--Landform: Fan remnants; geomorphic position: shoulder; position on slope: upper

Inclusion 2--Landform: Fan remnants; geomorphic position: backslope; position on slope: upper

Inclusion 3--Landform: Inset fans

Inclusion 4--Landform: Fan remnants; geomorphic position: backslope; position on slope: lower

Major Component Description**Flue Series**

Elevation: 4,500 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 5 percent cobbles; 20 percent gravel

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Snapp Series

Elevation: 4,500 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Snapp Series

Elevation: 4,500 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 2 percent stones and boulders; 20 percent cobbles; 20 percent gravel

Surface layer texture: Very cobbly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Flue: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Snapp: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Snapp: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: Basin big sagebrush, basin wildrye, spiny hopsage

Inclusion 4: Bud sagebrush, shadscale

Ecological Site

Flue: 024XY005NV

Snapp: 024XY005NV

Snapp: 024XY020NV

Inclusion 1: 024XY005NV

Inclusion 2: 025XY019NV

Inclusion 3: 024XY041NV

Inclusion 4: 024XY002NV

216--Flue very fine sandy loam, 2 to 4 percent slopes

Composition

Major Components

Flue very fine sandy loam, 2 to 4 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Hunnton very fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 2: Snapp very fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 3: Rose Creek loam, drained, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Flue--Landform: Fan remnants; geomorphic position: summit

Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Inclusion 2--Landform: Drainageways

Inclusion 3--Landform: Inset fans

Major Component Description

Flue Series

Elevation: 4,500 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 5 percent gravel

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Flue: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Flue: 024XY005NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY005NV

Inclusion 3: 025XY003NV

217--Flue loam, 0 to 2 percent slopes

Composition

Major Components

Flue loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Rodock loam, moist, 0 to 2 percent slopes--5 percent

Inclusion 2: Rio King loam, slightly saline, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Flue--Landform: Fan remnants; geomorphic position: summit

Inclusion 1--Landform: Inset fans

Inclusion 2--Landform: Drainageways; position on

slope: lower

Major Component Description

Flue Series

Elevation: 4,500 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 5 percent gravel

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Flue: Wyoming big sagebrush, basin wildrye, bottlebrush squirreltail

Inclusion 1: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood

Ecological Site

Flue: 024XY005NV

Inclusion 1: 025XY003NV

Inclusion 2: 024XY006NV

218--Flue-Snapp-Rodock association

Composition

Major Components

Flue gravelly loam, 2 to 8 percent slopes--40 percent

Snapp very fine sandy loam, 2 to 4 percent slopes--25 percent

Rodock loam, 2 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Chiara gravelly very fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 2: Clementine silt loam, drained, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Flue--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Snapp--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Rodock--Landform: Inset fans

Inclusion 1--Landform: Fan remnants; geomorphic

position: shoulder; position on slope: upper
Inclusion 2--Landform: Drainageways

Major Component Description

Flue Series

Elevation: 4,500 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 5 percent cobbles; 20 percent gravel

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Snapp Series

Elevation: 4,500 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Rodock Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Flue: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Snapp: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Rodock: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Flue: 024XY005NV

Snapp: 024XY005NV

Rodock: 024XY013NV
Inclusion 1: 024XY005NV
Inclusion 2: 025XY003NV

222--Bloor very fine sandy loam, 0 to 2 percent slopes

Composition

Major Components

Bloor very fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

- Inclusion 1: Valmy loam, 0 to 2 percent slopes--3 percent
- Inclusion 2: Valmy silt loam, 0 to 2 percent slopes, occasionally flooded--2 percent
- Inclusion 3: Bloor silt loam, strongly saline, 0 to 2 percent slopes--2 percent
- Inclusion 4: Bliss loamy fine sand, slightly saline, 0 to 8 percent slopes--3 percent

Map Unit Setting

- Landscape position:* Intermontane basins
- Bloor--Landform: Alluvial flats
- Inclusion 1--Landform: Drainageways; position on slope: lower
- Inclusion 2--Landform: Stream terraces
- Inclusion 3--Landform: Alluvial flats
- Inclusion 4--Landform: Fan remnants

Major Component Description

Bloor Series

- Elevation:* 4,100 to 4,200 feet
- Precipitation:* About 8 inches
- Air temperature:* About 49 degrees
- Frost-free season:* About 100 days
- Surface layer texture:* Very fine sandy loam
- Drainage class:* Moderately well drained
- Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

- Bloor: Big sagebrush, black greasewood, bottlebrush squirreltail
- Inclusion 1: Big sagebrush, black greasewood, bottlebrush squirreltail
- Inclusion 2: Basin wildrye, big sagebrush, black greasewood
- Inclusion 3: Black greasewood, bottlebrush squirreltail, shadscale
- Inclusion 4: Big sagebrush, black greasewood, inland saltgrass

Ecological Site

Bloor: 024XY022NV
Inclusion 1: 024XY022NV
Inclusion 2: 024XY006NV
Inclusion 3: 024XY003NV
Inclusion 4: 024XY022NV

231--Dun Glen very fine sandy loam, 2 to 4 percent slopes

Composition

Major Components

Dun Glen very fine sandy loam, 2 to 4 percent slopes--90 percent

Contrasting Inclusions

- Inclusion 1: Bubus very fine sandy loam, moderately saline, 0 to 2 percent slopes--5 percent
- Inclusion 2: Whirlo loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

- Landscape position:* Intermontane basins
- Dun Glen--Landform: Fan skirts
- Inclusion 1--Landform: Alluvial flats; position on slope: lower
- Inclusion 2--Landform: Inset fans; position on slope: upper

Major Component Description

Dun Glen Series

- Elevation:* 4,160 to 4,300 feet
- Precipitation:* About 7 inches
- Air temperature:* About 49 degrees
- Frost-free season:* About 110 days
- Surface layer texture:* Very fine sandy loam
- Drainage class:* Well drained
- Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

- Dun Glen: Bottlebrush squirreltail, bud sagebrush, shadscale
- Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale
- Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Dun Glen: 024XY002NV
Inclusion 1: 024XY003NV
Inclusion 2: 024XY002NV

233--Dun Glen very fine sandy loam, 0 to 2 percent slopes***Composition*****Major Components**

Dun Glen very fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Bubus very fine sandy loam, moderately saline, 0 to 2 percent slopes--5 percent

Inclusion 2: Whirlo loam, 0 to 2 percent slopes--4 percent

Inclusion 3: Dun Glen silt loam, moist, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Fan piedmonts

Dun Glen--Landform: Inset fans

Inclusion 1--Landform: Alluvial flats; position on slope: lower

Inclusion 2--Landform: Fan remnants; geomorphic position: toeslope; position on slope: upper

Inclusion 3--Landform: Inset fans; shape of slope: concave

Major Component Description**Dun Glen Series**

Elevation: 4,200 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dun Glen: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Bottlebrush squirreltail, bud sagebrush, winterfat

Ecological Site

Dun Glen: 024XY002NV

Inclusion 1: 024XY003NV

Inclusion 2: 024XY002NV

Inclusion 3: 024XY004NV

241--Sojur extremely channery silt loam, 15 to 50 percent slopes***Composition*****Major Components**

Sojur, 15 to 50 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--5 percent

Inclusion 2: Lithic Xeric Torriorthents, loamy-skeletal, mixed (calcareous), mesic very cobbly loam, 50 to 75 percent slopes--5 percent

Inclusion 3: Lithic Xerollic Haplargids, loamy-skeletal, mixed, mesic very stony sandy loam, 30 to 75 percent slopes--5 percent

Map Unit Setting

Landscape position: Mountains and foothills

Sojur--Landform: Hills; geomorphic position: backslope

Inclusion 1--Landform: Mountains

Inclusion 2--Landform: Mountains; shape of slope: concave; aspect: north

Inclusion 3--Landform: Mountains; shape of slope: convex; aspect: north

Major Component Description**Sojur Series**

Elevation: 4,350 to 5,600 feet

Precipitation: About 6 inches

Air temperature: About 50 degrees

Frost-free season: About 120 days

Surface rock fragments: 20 percent cobbles; 45 percent gravel

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from metamorphic rocks

Dominant Present Vegetation

Sojur: Indian ricegrass, bottlebrush squirreltail, desert needlegrass, ephedra, horsebrush, shadscale

Inclusion 1: None

Inclusion 2:, Indian ricegrass, Thurber needlegrass, ephedra, littleleaf horsebrush

Inclusion 3:, Indian ricegrass, desert needlegrass, desert snowberry, ephedra, spiny hopsage

Ecological Site

Sojur: 027XY027NV

Inclusion 1: none

Inclusion 2: 027XY007NV

Inclusion 3: 027XY065NV

250--Connel-Davey-Goldrun complex, 4 to 30 percent slopes

Composition

Major Components

Connel fine sandy loam, 4 to 8 percent slopes--40 percent

Davey loamy fine sand, 4 to 8 percent slopes--30 percent

Goldrun fine sand, 4 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Orovada loamy fine sand, hummocky, 4 to 8 percent slopes--10 percent

Inclusion 2: Bliss fine sandy loam, 4 to 8 percent slopes--3 percent

Inclusion 3: Orovada fine sandy loam, 4 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Connel--Landform: Beach terraces

Davey--Landform: Sand sheets

Goldrun--Landform: Dunes

Inclusion 1--Landform: Inset fans

Inclusion 2--Landform: Fan remnants

Inclusion 3--Landform: Inset fans

Major Component Description

Connel Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Davey Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Goldrun Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Eolian sand

Dominant Present Vegetation

Connel: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, shadscale, spiny hopsage

Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread

Goldrun: Indian ricegrass, basin big sagebrush, hairy horsebrush, needleandthread

Inclusion 1: Indian ricegrass, Wyoming big sagebrush, needleandthread

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Connel: 024XY020NV

Davey: 024XY017NV

Goldrun: 024XY001NV

Inclusion 1: 024XY017NV

Inclusion 2: 024XY005NV

Inclusion 3: 024XY020NV

251--Connel very fine sandy loam, 2 to 4 percent slopes

Composition

Major Components

Connel very fine sandy loam, 2 to 4 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Rebel loamy fine sand, 0 to 2 percent slopes--5 percent

Inclusion 2: Davey loamy fine sand, 0 to 2 percent slopes--3 percent

Inclusion 3: McConnel loamy very fine sand, 2 to 4 percent slopes, rarely flooded--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Connel--Landform: Beach terraces

Inclusion 1--Landform: Inset fans

Inclusion 2--Landform: Sand sheets

Inclusion 3--Landform: Drainageways

Major Component Description

Connel Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Connel: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Indian ricegrass, Wyoming big sagebrush, needleandthread

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Connel: 024XY005NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY017NV

Inclusion 3: 024XY005NV

252--Connel gravelly fine sandy loam, 0 to 2 percent slopes

Composition

Major Components

Connel gravelly fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Orovida very fine sandy loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Rose Creek loam, 0 to 2 percent slopes--3 percent

Inclusion 3: Sonoma silt loam, 0 to 2 percent slopes, frequently flooded--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Connel--Landform: Inset fans

Inclusion 1--Landform: Fan skirts

Inclusion 2--Landform: Drainageways; position on slope: upper

Inclusion 3--Landform: Drainageways; position on slope: lower

Major Component Description

Connel Series

Elevation: 4,200 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface rock fragments: 20 percent gravel

Surface layer texture: Gravelly fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Connel: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 2: Basin wildrye, creeping wildrye

Inclusion 3: Basin wildrye, creeping wildrye

Ecological Site

Connel: 024XY020NV

Inclusion 1: 024XY020NV

Inclusion 2: 025XY001NV

Inclusion 3: 025XY001NV

253--Connel-McConnel complex, 0 to 2 percent slopes

Composition

Major Components

Connel very fine sandy loam, slightly saline, 0 to 2 percent slopes--60 percent

McConnel loam, 0 to 2 percent slopes, occasionally flooded--30 percent

Contrasting Inclusions

Inclusion 1: Rose Creek loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Kelk very fine sandy loam, 0 to 2 percent slopes, occasionally flooded--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Connel--Landform: Inset fans

McConnel--Landform: Drainageways

Inclusion 1--Landform: Drainageways; position on slope: lower

Inclusion 2--Landform: Stream terraces; position on slope: lower

Major Component Description

Connel Series

Elevation: 4,200 to 4,500 feet

Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

McConnel Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Loam
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Connel: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail
 McConnel: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 1: Basin wildrye, creeping wildrye
 Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood

Ecological Site

Connel: 024XY022NV
 McConnel: 024XY006NV
 Inclusion 1: 025XY001NV
 Inclusion 2: 024XY006NV

254--Connel-Zevadez association

Composition

Major Components

Connel very fine sandy loam, 2 to 4 percent slopes--45 percent
 Zevadez loam, 4 to 15 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Bliss fine sandy loam, 2 to 8 percent slopes--5 percent
 Inclusion 2: McConnel fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 3: Panlee very fine sandy loam, 8 to 16 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Connel--Landform: Inset fans; position on slope: lower
 Zevadez--Landform: Fan remnants; geomorphic position: summit; position on slope: upper; aspect: south
 Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: lower
 Inclusion 2--Landform: Inset fans; position on slope: lower
 Inclusion 3--Landform: Fan remnants; geomorphic position: backslope; position on slope: upper; aspect: north

Major Component Description

Connel Series

Elevation: 4,600 to 5,100 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Zevadez Series

Elevation: 4,600 to 5,100 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Connel: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Zevadez: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Wyoming big sagebrush, bluegrass, spiny hopsage
 Inclusion 3: Indian ricegrass, Wyoming big sagebrush, needleandthread

Ecological Site

Connel: 024XY005NV
 Zevadez: 024XY005NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY020NV

Inclusion 3: 024XY058NV

255--Connel-McConnel complex, rarely flooded, 0 to 2 percent slopes

Composition

Major Components

Connel very fine sandy loam, 0 to 2 percent slopes, rarely flooded--50 percent

McConnel gravelly fine sandy loam, 0 to 2 percent slopes, rarely flooded--40 percent

Contrasting Inclusions

Inclusion 1: Rodock gravelly loam, 0 to 2 percent slopes--5 percent

Inclusion 2: McConnel loam, 0 to 2 percent slopes, occasionally flooded--3 percent

Inclusion 3: Valmy very fine sandy loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Connel--Landform: Beach terraces

McConnel--Landform: Beach terraces

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Drainageways; position on slope: upper

Inclusion 3--Landform: Fan skirts; position on slope: lower

Major Component Description

Connel Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

McConnel Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly fine sandy loam

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Connel: Wyoming big sagebrush, bottlebrush squirreltail

McConnel: Sandberg bluegrass, Wyoming big sagebrush, basin wildrye

Inclusion 1: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood

Inclusion 3: Big sagebrush, black greasewood, bottlebrush squirreltail

Ecological Site

Connel: 024XY005NV

McConnel: 024XY005NV

Inclusion 1: 025XY003NV

Inclusion 2: 024XY006NV

Inclusion 3: 024XY022NV

257--Connel very fine sandy loam, 0 to 2 percent slopes

Composition

Major Components

Connel very fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: McConnel fine sandy loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Orovada very fine sandy loam, moist, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Connel--Landform: Inset fans

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Fan skirts; position on slope: lower

Major Component Description

Connel Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Connel: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Basin big sagebrush, basin wildrye, bottlebrush squirreltail

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Connel: 024XY005NV
Inclusion 1: 024XY006NV
Inclusion 2: 024XY005NV

258--Connel very fine sandy loam, slightly saline, 0 to 2 percent slopes

Composition

Major Components

Connel very fine sandy loam, slightly saline, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Rodock gravelly sandy loam, slightly saline, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
Connel--Landform: Fan skirts
Inclusion 1--Landform: Drainageways

Major Component Description

Connel Series

Elevation: 4,100 to 4,400 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Connel: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail
Inclusion 1: Basin big sagebrush, basin wildrye, black greasewood

Ecological Site

Connel: 024XY022NV
Inclusion 1: 024XY006NV

262--Golconda-Snapp association

Composition

Major Components

Golconda silt loam, 2 to 8 percent slopes--70 percent

Snapp loam, dry, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Dugchip gravelly loam, dry, 2 to 8 percent slopes--4 percent
Inclusion 2: Connel gravelly loam, 2 to 8 percent slopes--4 percent
Inclusion 3: Broyles very fine sandy loam, 2 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
Golconda--Landform: Fan remnants; geomorphic position: summit
Snapp--Landform: Fan remnants; geomorphic position: backslope
Inclusion 1--Landform: Fan remnants; geomorphic position: summit; shape of slope: concave; aspect: north
Inclusion 2--Landform: Inset fans
Inclusion 3--Landform: Fan aprons

Major Component Description

Golconda Series

Elevation: 4,500 to 4,800 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Snapp Series

Elevation: 4,500 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Golconda: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale
Snapp: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage
Inclusion 2: Wyoming big sagebrush, bluegrass, spiny hopsage
Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Golconda: 024XY002NV
 Snapp: 024XY020NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY020NV
 Inclusion 3: 024XY002NV

263--Golconda-Bliss-Connel association**Composition****Major Components**

Golconda very fine sandy loam, 4 to 15 percent slopes--35 percent
 Bliss very fine sandy loam, dry, 4 to 15 percent slopes--35 percent
 Connel very fine sandy loam, 2 to 8 percent slopes, rarely flooded--15 percent

Contrasting Inclusions

Inclusion 1: Enko very fine sandy loam, moist, 2 to 8 percent slopes--7 percent
 Inclusion 2: Connel very fine sandy loam, slightly saline, 4 to 15 percent slopes--5 percent
 Inclusion 3: Pumper very fine sandy loam, 4 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Golconda--Landform: Fan remnants; geomorphic position: summit; position on slope: lower
 Bliss--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Connel--Landform: Drainageways
 Inclusion 1--Landform: Inset fans
 Inclusion 2--Landform: Fan remnants; geomorphic position: backslope; position on slope: lower
 Inclusion 3--Landform: Beach terraces; position on slope: lower

Major Component Description**Golconda Series**

Elevation: 4,300 to 4,800 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Bliss Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees

Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Connel Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Golconda: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale
 Bliss: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Connel: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, basin wildrye
 Inclusion 2: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail
 Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Golconda: 024XY002NV
 Bliss: 024XY020NV
 Connel: 024XY005NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY022NV
 Inclusion 3: 024XY002NV

270--Goldrun fine sand, 2 to 15 percent slopes**Composition****Major Components**

Goldrun fine sand, 2 to 15 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Valmy loamy fine sand, 0 to 2 percent slopes--9 percent
 Inclusion 2: Rebel fine sandy loam, 0 to 2 percent slopes--6 percent

Map Unit Setting

Landscape position: Intermontane basins

Goldrun--Landform: Dunes
 Inclusion 1--Landform: Alluvial flats
 Inclusion 2--Landform: Fan skirts; position on slope:
 upper

Major Component Description

Goldrun Series

Elevation: 4,160 to 4,900 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Dominant Present Vegetation

Goldrun: Indian ricegrass, basin big sagebrush, hairy
 horsebrush, needleandthread
 Inclusion 1: Big sagebrush, black greasewood
 Inclusion 2: Wyoming big sagebrush, bottlebrush
 squirreltail, spiny hopsage

Ecological Site

Goldrun: 024XY001NV
 Inclusion 1: 024XY022NV
 Inclusion 2: 024XY020NV

271--Goldrun loamy fine sand, 0 to 2 percent slopes

Composition

Major Components

Goldrun loamy fine sand, 0 to 2 percent slopes--85
 percent

Contrasting Inclusions

Inclusion 1: Orovada fine sandy loam, 0 to 2 percent
 slopes--9 percent
 Inclusion 2: Bubus very fine sandy loam, 0 to 2
 percent slopes, ponded--3 percent
 Inclusion 3: Valmy fine sandy loam, 0 to 2 percent
 slopes--3 percent

Map Unit Setting

Landscape position: Intermontane basins
 Goldrun--Landform: Sand sheets
 Inclusion 1--Landform: Inset fans; position on slope:
 upper
 Inclusion 2--Landform: Alluvial flats
 Inclusion 3--Landform: Fan skirts; position on slope:
 lower

Major Component Description

Goldrun Series

Elevation: 4,160 to 4,900 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Dominant Present Vegetation

Goldrun: Indian ricegrass, basin big sagebrush, hairy
 horsebrush, needleandthread
 Inclusion 1: Wyoming big sagebrush, spiny hopsage
 Inclusion 2: Black greasewood, inland saltgrass
 Inclusion 3: Big sagebrush, black greasewood

Ecological Site

Goldrun: 024XY001NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY011NV
 Inclusion 3: 024XY022NV

272--Goldrun loamy fine sand, 2 to 4 percent slopes

Composition

Major Components

Goldrun loamy fine sand, 2 to 4 percent slopes--85
 percent

Contrasting Inclusions

Inclusion 1: Rebel loam, dry, 0 to 2 percent slopes--
 9 percent
 Inclusion 2: Valmy fine sandy loam, 0 to 2 percent
 slopes--2 percent
 Inclusion 3: Benin silt loam, 0 to 2 percent slopes--2
 percent
 Inclusion 4: Prideen silt loam, strongly saline, 0 to 2
 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Goldrun--Landform: Sand sheets
 Inclusion 1--Landform: Fan skirts; position on slope:
 upper
 Inclusion 2--Landform: Fan skirts; position on slope:
 lower
 Inclusion 3--Landform: Lake plains; position on
 slope: lower
 Inclusion 4--Landform: Alluvial flats; position on

slope: lower

Major Component Description

Goldrun Series

Elevation: 4,160 to 4,900 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Dominant Present Vegetation

Goldrun: Indian ricegrass, basin big sagebrush, hairy horsebrush, needleandthread
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 2: Big sagebrush, black greasewood
 Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 4: Black greasewood, inland saltgrass

Ecological Site

Goldrun: 024XY001NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY022NV
 Inclusion 3: 024XY002NV
 Inclusion 4: 024XY011NV

274--Goldrun-Benin complex, 0 to 15 percent slopes

Composition

Major Components

Goldrun fine sand, 2 to 15 percent slopes--50 percent
 Benin silt loam, 0 to 2 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Rebel loam, dry, 0 to 2 percent slopes--7 percent
 Inclusion 2: Rad silt loam, dry, 0 to 2 percent slopes--6 percent
 Inclusion 3: Valmy fine sandy loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Goldrun--Landform: Dunes
 Benin--Landform: Lake terraces
 Inclusion 1--Landform: Inset fans; position on slope: upper
 Inclusion 2--Landform: Fan skirts; position on slope: upper

Inclusion 3--Landform: Drainageways

Major Component Description

Goldrun Series

Elevation: 4,160 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Benin Series

Elevation: 4,160 to 4,600 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Dominant Present Vegetation

Goldrun: Indian ricegrass, basin big sagebrush, hairy horsebrush, needleandthread
 Benin: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, spiny hopsage
 Inclusion 3: Big sagebrush, black greasewood

Ecological Site

Goldrun: 024XY001NV
 Benin: 024XY002NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY020NV
 Inclusion 3: 024XY022NV

275--Goldrun-Preble complex, 0 to 15 percent slopes

Composition

Major Components

Goldrun fine sand, 4 to 15 percent slopes--55 percent
 Preble fine sandy loam, 0 to 2 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Needle Peak silt loam, 0 to 2 percent slopes--10 percent

Inclusion 2: Valmy fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Goldrun--Landform: Dunes

Preble--Landform: Alluvial flats

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Fan skirts; position on slope: upper

Major Component Description

Goldrun Series

Elevation: 4,160 to 4,700 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Eolian sand

Preble Series

Elevation: 4,160 to 4,700 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Somewhat poorly drained

Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Dominant Present Vegetation

Goldrun: Indian ricegrass, basin big sagebrush, hairy horsebrush, needleandthread

Preble: Black greasewood, inland saltgrass, rubber rabbitbrush, seepweed

Inclusion 1: Basin big sagebrush, basin wildrye, black greasewood

Inclusion 2: Big sagebrush, black greasewood

Ecological Site

Goldrun: 024XY001NV

Preble: 024XY011NV

Inclusion 1: 024XY006NV

Inclusion 2: 024XY022NV

281--Golsum-Spinlin-Harcany association

Composition

Major Components

Golsum very stony loam, 30 to 50 percent slopes--35 percent

Spinlin very stony silt loam, 30 to 50 percent slopes--25 percent

Harcany stony silt loam, 30 to 50 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Bregar extremely gravelly loam, 4 to 30 percent slopes--5 percent

Inclusion 2: Rock outcrop--5 percent

Inclusion 3: Lithic Xeric Torriorthents, clayey-skeletal, montmorillonitic, nonacid, frigid very cobbly loam, 30 to 50 percent slopes--3 percent

Inclusion 4: Cumulic Cryoborolls, fine-loamy, mixed gravelly loam, 2 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Golsum--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south

Spinlin--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Harcany--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: summit

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Mountains; geomorphic position: backslope

Inclusion 4--Landform: Stream terraces

Major Component Description

Golsum Series

Elevation: 6,500 to 9,000 feet

Precipitation: About 12 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Spinlin Series

Elevation: 6,500 to 9,000 feet

Precipitation: About 13 inches

Air temperature: About 38 degrees

Frost-free season: About 50 days

Surface layer texture: Very stony silt loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Harcany Series

Elevation: 6,500 to 9,000 feet

Precipitation: About 15 inches
Air temperature: About 40 degrees
Frost-free season: About 50 days
Surface layer texture: Stony silt loam
Drainage class: Well drained
Dominant parent material: Colluvium derived from mixed rocks

Dominant Present Vegetation

Golsum: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Spinlin: Idaho fescue, low sagebrush
 Harcany: Idaho fescue, mountain big sagebrush, mountain brome, snowberry
 Inclusion 1: Bluegrass, low sagebrush
 Inclusion 2: None
 Inclusion 3: Thurber needlegrass, Utah juniper, juniper
 Inclusion 4: Basin wildrye, rose

Ecological Site

Golsum: 024XY029NV
 Spinlin: 024XY027NV
 Harcany: 024XY032NV
 Inclusion 1: 024XY016NV
 Inclusion 2: none
 Inclusion 3: 025XY059NV
 Inclusion 4: 025XY064NV

290--Havingdon-Burrita association

Composition

Major Components

Havingdon very gravelly loam, 30 to 50 percent slopes--45 percent
 Burrita very gravelly loam, 15 to 50 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Aridic Haploxerolls, loamy-skeletal, mixed, frigid very gravelly loam, 30 to 50 percent slopes--5 percent
 Inclusion 2: Hoot very gravelly loam, 30 to 50 percent slopes--5 percent
 Inclusion 3: Roca very cobbly loam, 30 to 50 percent slopes--3 percent
 Inclusion 4: Burrita extremely gravelly loam, dry, 15 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Havingdon--Landform: Mountains; geomorphic position: backslope; aspect: south

Burrita--Landform: Mountains; geomorphic position: backslope; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: south
 Inclusion 4--Landform: Mountains; geomorphic position: summit; position on slope: lower

Major Component Description

Havingdon Series

Elevation: 5,200 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface rock fragments: 1 percent stones and boulders; 2 percent cobbles; 30 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from sedimentary rocks

Burrita Series

Elevation: 5,200 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 5 percent cobbles; 40 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Havingdon: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: Thurber needlegrass, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 3: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 4: Wyoming big sagebrush, spiny hopsage

Ecological Site

Havingdon: 024XY035NV

Burrita: 024XY005NV
 Inclusion 1: 025XY014NV
 Inclusion 2: 024XY025NV
 Inclusion 3: 024XY028NV
 Inclusion 4: 024XY020NV

292--Havingdon-Gowjai-Walti association

Composition

Major Components

Havingdon very cobbly loam, 30 to 50 percent slopes--50 percent
 Gowjai gravelly very fine sandy loam, 15 to 50 percent slopes--25 percent
 Walti very cobbly loam, 8 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--3 percent
 Inclusion 2: Bregar extremely gravelly loam, 4 to 15 percent slopes--3 percent
 Inclusion 3: Sumine very cobbly loam, 30 to 50 percent slopes--2 percent
 Inclusion 4: Havingdon very gravelly loam, moist, 15 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Havingdon--Landform: Mountains; geomorphic position: backslope; aspect: south
 Gowjai--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Walti--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north
 Inclusion 1--Landform: Mountains
 Inclusion 2--Landform: Mountains; geomorphic position: summit
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: south
 Inclusion 4--Landform: Mountains; geomorphic position: footslope

Major Component Description

Havingdon Series

Elevation: 5,800 to 6,600 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface rock fragments: 2 percent stones and boulders; 15 percent cobbles; 30 percent gravel

Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from sedimentary rocks

Gowjai Series

Elevation: 5,800 to 6,600 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface rock fragments: 15 percent cobbles; 35 percent gravel
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Walti Series

Elevation: 5,800 to 6,600 feet
Precipitation: About 14 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 2 percent stones and boulders; 20 percent cobbles; 15 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Havingdon: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Gowjai: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush
 Walti: Bluebunch wheatgrass, bluegrass, low sagebrush
 Inclusion 1: None
 Inclusion 2: Bluegrass, bottlebrush squirreltail, low sagebrush
 Inclusion 3: Bluebunch wheatgrass, mountain big sagebrush, mountain brome
 Inclusion 4: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Ecological Site

Havingdon: 024XY035NV
 Gowjai: 024XY021NV
 Walti: 025XY022NV
 Inclusion 1: none
 Inclusion 2: 024XY016NV
 Inclusion 3: 024XY029NV
 Inclusion 4: 024XY005NV

302--Essal-Playas-Isolde association**Composition****Major Components**

Essal very fine sandy loam, 0 to 2 percent slopes--45 percent

Playas silty clay loam, 0 to 1 percent slopes--20 percent

Isolde fine sand, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Boton very fine sandy loam, 0 to 2 percent slopes--7 percent

Inclusion 2: Essal fine sand, 0 to 2 percent slopes--5 percent

Inclusion 3: Cresal very fine sandy loam, 0 to 2 percent slopes--3 percent

Map Unit Setting

Landscape position: Intermontane basins

Essal--Landform: Lake plains

Playas--Landform: Playas

Isolde--Landform: Dunes

Inclusion 1--Landform: Lake plains; position on slope: lower

Inclusion 2--Landform: Lake plains

Inclusion 3--Landform: Sand sheets

Major Component Description**Essal Series**

Elevation: 4,100 to 4,300 feet

Precipitation: About 6 inches

Air temperature: About 52 degrees

Frost-free season: About 120 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from lacustrine sediments

Playas Miscellaneous Area

Elevation: 4,100 to 4,300 feet

Surface layer texture: Silty clay loam

Isolde Series

Elevation: 4,100 to 4,300 feet

Precipitation: About 7 inches

Air temperature: About 52 degrees

Frost-free season: About 120 days

Surface layer texture: Fine sand

Drainage class: Excessively drained

Dominant parent material: Eolian sand

Dominant Present Vegetation

Essal: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale

Playas: None

Isolde: Indian ricegrass, fourwing saltbush

Inclusion 1: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Indian ricegrass, needleandthread, shadscale, spiny hopsage

Ecological Site

Essal: 024XY003NV

Isolde: 027XY023NV

Playas: None

Inclusion 1: 024XY003NV

Inclusion 2: 024XY002NV

Inclusion 3: 024XY067NV

305--Essal-Isolde-Hawsley association**Composition****Major Components**

Essal loamy fine sand, 0 to 2 percent slopes--50 percent

Isolde fine sand, 2 to 15 percent slopes--25 percent

Hawsley fine sand, 0 to 2 percent slopes--10 percent

Contrasting Inclusions

Inclusion 1: Davey fine sand, 0 to 4 percent slopes--5 percent

Inclusion 2: Essal very fine sandy loam, dry, 0 to 2 percent slopes--5 percent

Inclusion 3: Duneland, 0 to 1 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Essal--Landform: Lake plains

Isolde--Landform: Dunes

Hawsley--Landform: Sand sheets

Inclusion 1--Landform: Sand sheets

Inclusion 2--Landform: Lake plains

Inclusion 3--Landform: Dunes

Major Component Description**Essal Series**

Elevation: 4,100 to 4,300 feet

Precipitation: About 6 inches

Air temperature: About 52 degrees

Frost-free season: About 120 days

Surface layer texture: Loamy fine sand

Drainage class: Well drained

Dominant parent material: Alluvium derived from lacustrine sediments

Isolde Series*Elevation:* 4,100 to 4,300 feet*Precipitation:* About 7 inches*Air temperature:* About 52 degrees*Frost-free season:* About 120 days*Surface layer texture:* Fine sand*Drainage class:* Excessively drained*Dominant parent material:* Eolian sand**Hawsley Series***Elevation:* 4,100 to 4,300 feet*Precipitation:* About 7 inches*Air temperature:* About 50 degrees*Frost-free season:* About 120 days*Surface layer texture:* Fine sand*Drainage class:* Somewhat excessively drained*Dominant parent material:* Alluvium derived from mixed rocks***Dominant Present Vegetation***

Essal: Indian ricegrass, Nevada dalea, fourwing saltbush, needleandthread, spiny hopsage

Isolde: Indian ricegrass, fourwing saltbush, hairy horsebrush

Hawsley: Indian ricegrass, Nevada dalea, fourwing saltbush, needleandthread, spiny hopsage

Inclusion 1: Indian ricegrass, basin big sagebrush, needleandthread, spiny hopsage

Inclusion 2: Indian ricegrass, littleleaf horsebrush, shadscale

Inclusion 3: None

Ecological Site

Essal: 027XY009NV

Isolde: 027XY023NV

Hawsley: 027XY009NV

Inclusion 1: 024XY017NV

Inclusion 2: 024XY002NV

Inclusion 3: none

307--Essal-Tresed-Isolde association***Composition*****Major Components**

Essal loamy fine sand, 0 to 2 percent slopes--45 percent

Tresed loamy fine sand, warm, 0 to 2 percent slopes--25 percent

Isolde fine sand, 4 to 15 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Duneland fine sand, 0 to 1 percent slopes--5 percent

Map Unit Setting*Landscape position:* Intermontane basins

Essal--Landform: Lake plains

Tresed--Landform: Lake plains; position on slope: upper

Isolde--Landform: Dunes

Inclusion 1--Landform: Dunes

Major Component Description**Essal Series***Elevation:* 4,100 to 4,300 feet*Precipitation:* About 6 inches*Air temperature:* About 52 degrees*Frost-free season:* About 120 days*Surface layer texture:* Loamy fine sand*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from lacustrine sediments**Tresed Series***Elevation:* 4,100 to 4,300 feet*Precipitation:* About 6 inches*Air temperature:* About 52 degrees*Frost-free season:* About 120 days*Surface layer texture:* Loamy fine sand*Drainage class:* Moderately well drained*Dominant parent material:* Alluvium derived from lacustrine sediments**Isolde Series***Elevation:* 4,100 to 4,300 feet*Precipitation:* About 7 inches*Air temperature:* About 52 degrees*Frost-free season:* About 120 days*Surface layer texture:* Fine sand*Drainage class:* Excessively drained*Dominant parent material:* Eolian sand***Dominant Present Vegetation***

Essal: Indian ricegrass, Nevada dalea, needleandthread

Tresed: Indian ricegrass, fourwing saltbush, littleleaf horsebrush, needleandthread

Isolde: Indian ricegrass, fourwing saltbush, hairy horsebrush

Inclusion 1: None

Ecological Site

Essal: 027XY009NV

Tresed: 027XY009NV

Isolde: 027XY023NV

Inclusion 1: none

311--Harcany-Croesus-Hackwood association

Composition

Major Components

Harcany very cobbly silt loam, 30 to 50 percent slopes--45 percent
 Croesus very stony loam, 8 to 30 percent slopes--30 percent
 Hackwood silt loam, 8 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Lithic Cryoborolls, loamy-skeletal, mixed very gravelly loam, 30 to 75 percent slopes--5 percent
 Inclusion 2: Cumulic Endoaquolls, loamy-skeletal, mixed, frigid stony loam, 4 to 15 percent slopes--1 percent
 Inclusion 3: Rock outcrop--4 percent

Map Unit Setting

Landscape position: Mountains

Harcany--Landform: Mountains; geomorphic position: backslope

Croesus--Landform: Mountains; geomorphic position: summit

Hackwood--Landform: Mountains; geomorphic position: backslope; shape of slope: concave

Inclusion 1--Landform: Mountains; shape of slope: concave

Inclusion 2--Landform: Drainageways

Inclusion 3--Landform: Mountains

Major Component Description

Harcany Series

Elevation: 6,800 to 8,200 feet

Precipitation: About 15 inches

Air temperature: About 40 degrees

Frost-free season: About 50 days

Surface layer texture: Very cobbly silt loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Croesus Series

Elevation: 6,800 to 8,200 feet

Precipitation: About 18 inches

Air temperature: About 42 degrees

Frost-free season: About 50 days

Surface rock fragments: 2 percent stones and boulders; 10 percent cobbles; 20 percent gravel

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Hackwood Series

Elevation: 6,800 to 8,200 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium and colluvium derived from volcanic rocks

Dominant Present Vegetation

Harcany: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Croesus: Idaho fescue, mountain big sagebrush, needlegrass

Hackwood: Mountain brome, quaking aspen

Inclusion 1: Needlegrass, tailcup lupine

Inclusion 2: Bluegrass, rush, tufted hairgrass

Inclusion 3: None

Ecological Site

Harcany: 023XY065NV

Croesus: 023XY061NV

Hackwood: 023XY028NV

Inclusion 1: 023XY062NV

Inclusion 2: 023XY025NV

Inclusion 3: none

312--Harcany-Hackwood-Cleavage association

Composition

Major Components

Harcany gravelly loam, 30 to 75 percent slopes--40 percent

Hackwood silt loam, 30 to 50 percent slopes--25 percent

Cleavage very gravelly loam, 30 to 75 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Sumine cobbly loam, 30 to 50 percent slopes--5 percent

Inclusion 2: Rock outcrop--5 percent

Inclusion 3: Lithic Cryochrepts, loamy-skeletal, mixed gravelly loam, 50 to 75 percent slopes--3 percent

Inclusion 4: Pachic Cryoborolls, loamy-skeletal, mixed silt loam, wet, 15 to 30 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Harcany--Landform: Mountains; shape of slope: plane

Hackwood--Landform: Mountains; position on slope: lower; shape of slope: concave

Cleavage--Landform: Mountains; geomorphic position: summit; position on slope: upper; shape of slope: convex

Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Mountains; shape of slope: concave

Inclusion 4--Landform: Mountains; shape of slope: concave

Major Component Description**Harcany Series**

Elevation: 6,400 to 8,600 feet

Precipitation: About 15 inches

Air temperature: About 40 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Hackwood Series

Elevation: 6,400 to 8,600 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium and colluvium derived from volcanic rocks

Cleavage Series

Elevation: 6,400 to 8,600 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Harcany: Columbia needlegrass, mountain big sagebrush, mountain brome, slender wheatgrass, snowberry

Hackwood: Mountain brome, quaking aspen, slender wheatgrass, snowberry

Cleavage: Idaho fescue, bluebunch wheatgrass, low sagebrush

Inclusion 1: Bluebunch wheatgrass, mountain big sagebrush

Inclusion 2: None

Inclusion 3: Tailcup lupine

Inclusion 4: Nevada bluegrass, Woods rose, quaking aspen

Ecological Site

Harcany: 024XY032NV

Hackwood: 025XY065NV

Cleavage: 024XY016NV

Inclusion 1: 024XY029NV

Inclusion 2: none

Inclusion 3: 025XY028NV

Inclusion 4: 025XY064NV

321--Humboldt silty clay loam**Composition****Major Components**

Humboldt silty clay loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Rose Creek loam, 0 to 2 percent slopes--4 percent

Inclusion 2: Sonoma silty clay loam, strongly saline, 0 to 2 percent slopes--3 percent

Inclusion 3: Sonoma silty clay loam, drained, 0 to 2 percent slopes--2 percent

Inclusion 4: Humboldt silty clay loam, strongly saline, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Intermontane basins

Humboldt--Landform: Flood plains

Inclusion 1--Landform: Levees (stream)

Inclusion 2--Landform: Stream terraces; geomorphic position: backslope

Inclusion 3--Landform: Stream terraces

Inclusion 4--Landform: Stream terraces

Major Component Description**Humboldt Series**

Elevation: 4,100 to 4,500 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Silty clay loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Humboldt: Basin wildrye, creeping wildrye, rush
 Inclusion 1: Basin wildrye, creeping wildrye, rush, willow
 Inclusion 2: Alkali sacaton, inland saltgrass
 Inclusion 3: Basin big sagebrush, basin wildrye, rabbitbrush
 Inclusion 4: Alkali sacaton, black greasewood, inland saltgrass, rubber rabbitbrush

Ecological Site

Humboldt: 025XY001NV
 Inclusion 1: 025XY001NV
 Inclusion 2: 024XY009NV
 Inclusion 3: 024XY006NV
 Inclusion 4: 024XY007NV

322--Humboldt silty clay loam, strongly saline

Composition

Major Components

Humboldt silty clay loam, strongly saline, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Sonoma silty clay loam, strongly saline, 0 to 2 percent slopes--5 percent
 Inclusion 2: Rose Creek loam, 0 to 2 percent slopes--4 percent
 Inclusion 3: Humboldt silty clay loam, slightly saline, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Intermontane basins
 Humboldt--Landform: Flood plains
 Inclusion 1--Landform: Stream terraces
 Inclusion 2--Landform: Levees (stream)
 Inclusion 3--Landform: Sloughs

Major Component Description

Humboldt Series

Elevation: 4,100 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Silty clay loam

Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Humboldt: Alkali sacaton, black greasewood, inland saltgrass, rubber rabbitbrush
 Inclusion 1: Alkali sacaton, black greasewood, inland saltgrass, rubber rabbitbrush
 Inclusion 2: Basin wildrye, creeping wildrye, rush, willow
 Inclusion 3: Basin wildrye, creeping wildrye, rush

Ecological Site

Humboldt: 024XY007NV
 Inclusion 1: 024XY007NV
 Inclusion 2: 025XY001NV
 Inclusion 3: 025XY001NV

325--Humboldt-Wendane complex

Composition

Major Components

Humboldt silty clay loam, 0 to 2 percent slopes--45 percent
 Wendane silt loam, 0 to 2 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: Wendane silty clay loam, 0 to 2 percent slopes, occasionally flooded--8 percent
 Inclusion 2: Sonoma silty clay loam, strongly saline, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Humboldt--Landform: Flood plains
 Wendane--Landform: Stream terraces
 Inclusion 1--Landform: Stream terraces
 Inclusion 2--Landform: Stream terraces; geomorphic position: backslope

Major Component Description

Humboldt Series

Elevation: 4,200 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Silty clay loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Wendane Series*Elevation:* 4,200 to 4,600 feet*Precipitation:* About 7 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Silt loam*Drainage class:* Somewhat poorly drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash***Dominant Present Vegetation***

Humboldt: Basin wildrye, creeping wildrye, rush

Wendane: Black greasewood, inland saltgrass

Inclusion 1: Alkali sacaton, black greasewood, inland saltgrass, rubber rabbitbrush

Inclusion 2: Baltic rush, alkali sacaton, inland saltgrass

Ecological Site

Humboldt: 025XY001NV

Wendane: 024XY011NV

Inclusion 1: 024XY007NV

Inclusion 2: 024XY009NV

330--McConnel fine sandy loam, 0 to 2 percent slopes***Composition*****Major Components**

McConnel fine sandy loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Rebel loam, dry, 0 to 2 percent slopes--8 percent

Inclusion 2: Orovada fine sandy loam, 0 to 2 percent slopes--7 percent

Map Unit Setting*Landscape position:* Intermontane basins

McConnel--Landform: Beach terraces

Inclusion 1--Landform: Inset fans; position on slope: upper

Inclusion 2--Landform: Fan skirts

Major Component Description**McConnel Series***Elevation:* 4,200 to 5,000 feet*Precipitation:* About 9 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Fine sandy loam*Drainage class:* Somewhat excessively drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash***Dominant Present Vegetation***

McConnel: Sandberg bluegrass, Wyoming big

sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

McConnel: 024XY020NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY020NV

331--McConnel gravelly fine sandy loam, 2 to 8 percent slopes***Composition*****Major Components**

McConnel gravelly fine sandy loam, 2 to 8 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Orovada gravelly fine sandy loam, 4 to 8 percent slopes--8 percent

Inclusion 2: Bliss gravelly fine sandy loam, 4 to 8 percent slopes--7 percent

Map Unit Setting*Landscape position:* Intermontane basins

McConnel--Landform: Beach terraces

Inclusion 1--Landform: Inset fans

Inclusion 2--Landform: Fan remnants

Major Component Description**McConnel Series***Elevation:* 4,200 to 4,500 feet*Precipitation:* About 9 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Gravelly fine sandy loam*Drainage class:* Somewhat excessively drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash***Dominant Present Vegetation***

McConnel: Sandberg bluegrass, Wyoming big

sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Sandberg bluegrass, Wyoming big

sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Sandberg bluegrass, Wyoming big

sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

McConnel: 024XY020NV
Inclusion 1: 024XY020NV
Inclusion 2: 024XY020NV

333--McConnel-Shabliss association

Composition

Major Components

McConnel loamy very fine sand, 4 to 8 percent slopes--65 percent
Shabliss very fine sandy loam, dry, 8 to 15 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Orovada fine sandy loam, 4 to 8 percent slopes--5 percent
Inclusion 2: Connel loamy fine sand, 2 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

McConnel--Landform: Inset fans; position on slope: lower

Shabliss--Landform: Fan remnants; position on slope: upper

Inclusion 1--Landform: Fan skirts; position on slope: lower

Inclusion 2--Landform: Inset fans

Major Component Description

McConnel Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy very fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Shabliss Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

McConnel: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
Shabliss: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

McConnel: 024XY020NV
Shabliss: 024XY020NV
Inclusion 1: 024XY020NV
Inclusion 2: 024XY005NV

335--McConnel very gravelly fine sandy loam, 0 to 2 percent slopes

Composition

Major Components

McConnel very gravelly fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: McConnel loam, 0 to 2 percent slopes, occasionally flooded--5 percent
Inclusion 2: Connel very fine sandy loam, 0 to 2 percent slopes, rarely flooded--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

McConnel--Landform: Inset fans

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Inset fans; position on slope: upper

Major Component Description

McConnel Series

Elevation: 4,200 to 4,700 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 40 percent gravel

Surface layer texture: Very gravelly fine sandy loam

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

McConnel: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

McConnel: 024XY020NV

Inclusion 1: 024XY006NV

Inclusion 2: 024XY005NV

338--McConnel-Pumper-Whirlo complex, 2 to 8 percent slopes

Composition

Major Components

McConnel gravelly fine sandy loam, 2 to 8 percent slopes--35 percent

Pumper very fine sandy loam, 2 to 8 percent slopes--25 percent

Whirlo gravelly very fine sandy loam, 4 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Rodock stony loam, 4 to 15 percent slopes--8 percent

Inclusion 2: Raglan very fine sandy loam, strongly saline, 0 to 2 percent slopes--4 percent

Inclusion 3: Bliss very fine sandy loam, dry, 4 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts

McConnel--Landform: Beach terraces; position on slope: upper

Pumper--Landform: Beach terraces; position on slope: lower

Whirlo--Landform: Inset fans

Inclusion 1--Landform: Fan aprons

Inclusion 2--Landform: Fan skirts; position on slope: lower

Inclusion 3--Landform: Fan remnants

Major Component Description

McConnel Series

Elevation: 4,150 to 4,320 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 5 percent gravel

Surface layer texture: Gravelly fine sandy loam

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Pumper Series

Elevation: 4,150 to 4,320 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Whirlo Series

Elevation: 4,150 to 4,320 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

McConnel: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, bud sagebrush, spiny hopsage

Pumper: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Whirlo: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Sandberg bluegrass, basin wildrye, big sagebrush, bottlebrush squirreltail, rabbitbrush

Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 3: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

McConnel: 024XY020NV

Pumper: 024XY002NV

Whirlo: 024XY002NV

Inclusion 1: 024XY013NV

Inclusion 2: 024XY003NV

Inclusion 3: 024XY020NV

340--Boger-Soughe association

Composition

Major Components

Boger gravelly loam, 2 to 8 percent slopes--60 percent

Soughe very cobbly loam, 8 to 30 percent slopes--30 percent

Contrasting Inclusions

- Inclusion 1: Dewar silt loam, 2 to 8 percent slopes--7 percent
 Inclusion 2: Rodock very cobbly loam, 2 to 8 percent slopes, occasionally flooded--2 percent
 Inclusion 3: Rock outcrop--1 percent

Map Unit Setting

- Landscape position:* Plateaus
 Boger--Landform: Plateaus; geomorphic position: summit
 Soughe--Landform: Plateaus; geomorphic position: backslope
 Inclusion 1--Landform: Plateaus; geomorphic position: footslope
 Inclusion 2--Landform: Drainageways
 Inclusion 3--Landform: Plateaus

Major Component Description**Boger Series**

- Elevation:* 4,900 to 5,400 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 110 days
Surface rock fragments: 5 percent cobbles; 25 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Soughe Series

- Elevation:* 4,900 to 5,400 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface rock fragments: 2 percent stones and boulders; 20 percent cobbles; 30 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

- Boger: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Soughe: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 2: Basin big sagebrush, basin wildrye

Inclusion 3: None

Ecological Site

- Boger: 024XY005NV
 Soughe: 024XY005NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 025XY003NV
 Inclusion 3: none

342--Boger-Goosel-Soughe association**Composition****Major Components**

- Boger gravelly loam, 2 to 8 percent slopes--35 percent
 Goosel gravelly loam, 8 to 15 percent slopes--30 percent
 Soughe very gravelly loam, dry, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

- Inclusion 1: Puett very gravelly loam, 15 to 50 percent slopes--9 percent
 Inclusion 2: Rock outcrop--3 percent
 Inclusion 3: Burrita gravelly loam, warm, 15 to 50 percent slopes--2 percent
 Inclusion 4: Rodock loam, 0 to 2 percent slopes, occasionally flooded--1 percent

Map Unit Setting

- Landscape position:* Plateaus and adjacent bolsons
 Boger--Landform: Plateaus; geomorphic position: summit
 Goosel--Landform: Plateaus; geomorphic position: backslope
 Soughe--Landform: Plateaus; geomorphic position: backslope
 Inclusion 1--Landform: Plateaus; geomorphic position: backslope
 Inclusion 2--Landform: Plateaus
 Inclusion 3--Landform: Plateaus; geomorphic position: backslope
 Inclusion 4--Landform: Drainageways

Major Component Description**Boger Series**

- Elevation:* 4,400 to 4,900 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 110 days
Surface rock fragments: 5 percent cobbles; 20

percent gravel

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Goosel Series

Elevation: 4,400 to 4,900 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface rock fragments: 5 percent cobbles; 15 percent gravel

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Soughe Series

Elevation: 4,400 to 4,900 feet

Precipitation: About 10 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Boger: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Goosel: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Soughe: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Indian ricegrass, Wyoming big sagebrush, spiny hopsage

Inclusion 2: None

Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Boger: 024XY005NV

Goosel: 024XY005NV

Soughe: 024XY020NV

Inclusion 1: 024XY045NV

Inclusion 2: none

Inclusion 3: 024XY035NV

Inclusion 4: 025XY003NV

343--Boger cobbly silt loam, 2 to 4 percent slopes

Composition

Major Components

Boger cobbly silt loam, 2 to 4 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Snowmore silt loam, 2 to 4 percent slopes--5 percent

Inclusion 2: Devada very cobbly loam, 0 to 2 percent slopes--5 percent

Inclusion 3: Clementine silt loam, drained, 0 to 2 percent slopes--3 percent

Inclusion 4: Sodhouse silt loam, dry, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus

Boger--Landform: Plateaus; geomorphic position: summit

Inclusion 1--Landform: Plateaus; geomorphic position: summit; position on slope: upper

Inclusion 2--Landform: Plateaus; geomorphic position: summit; position on slope: upper; shape of slope: concave

Inclusion 3--Landform: Drainageways

Inclusion 4--Landform: Plateaus; geomorphic position: summit; position on slope: lower; shape of slope: convex

Major Component Description

Boger Series

Elevation: 5,100 to 5,400 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 110 days

Surface rock fragments: 10 percent cobbles; 10 percent gravel

Surface layer texture: Cobbly silt loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Boger: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 2: Thurber needlegrass, bluebunch

wheatgrass, low sagebrush
 Inclusion 3: Basin big sagebrush, basin wildrye,
 rubber rabbitbrush
 Inclusion 4: Indian ricegrass, bottlebrush squirreltail,
 bud sagebrush, shadscale

Ecological Site

Boger: 024XY020NV
 Inclusion 1: 025XY019NV
 Inclusion 2: 025XY022NV
 Inclusion 3: 025XY003NV
 Inclusion 4: 024XY002NV

351--Goldrun-Prideen-Playas complex, 0 to 15 percent slopes

Composition

Major Components

Goldrun fine sand, slightly saline, 4 to 15 percent slopes--45 percent
 Prideen loamy fine sand, 0 to 2 percent slopes--25 percent
 Playas silty clay loam, 0 to 1 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Valmy loamy fine sand, 0 to 2 percent slopes--7 percent
 Inclusion 2: Preble loamy fine sand, overblown, 0 to 4 percent slopes--6 percent
 Inclusion 3: Bubus fine sandy loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Goldrun--Landform: Dunes
 Prideen--Landform: Alluvial flats
 Playas--Landform: Playas
 Inclusion 1--Landform: Basin-floor remnants
 Inclusion 2--Landform: Alluvial flats
 Inclusion 3--Landform: Fan skirts

Major Component Description

Goldrun Series

Elevation: 4,200 to 4,350 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Prideen Series

Elevation: 4,200 to 4,350 feet

Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Playas Miscellaneous Area

Elevation: 4,200 to 4,350 feet
Surface layer texture: Silty clay loam

Dominant Present Vegetation

Goldrun: Indian ricegrass, black greasewood, fourwing saltbush, horsebrush
 Prideen: Black greasewood, inland saltgrass
 Playas: None
 Inclusion 1: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 2: Bud sagebrush, inland saltgrass
 Inclusion 3: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Goldrun: 024XY066NV
 Prideen: 024XY011NV
 Playas: None
 Inclusion 1: 024XY022NV
 Inclusion 2: 026XY002NV
 Inclusion 3: 024XY003NV

352--Goldrun-Kleck-Davey complex, 0 to 15 percent slopes

Composition

Major Components

Goldrun fine sand, 4 to 15 percent slopes--35 percent
 Kleck loamy fine sand, 0 to 2 percent slopes--35 percent
 Davey loamy fine sand, 2 to 4 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Kleck loamy fine sand, moderately saline, 0 to 2 percent slopes--8 percent
 Inclusion 2: Connel loamy very fine sand, 0 to 2 percent slopes--7 percent

Map Unit Setting

Landscape position: Intermontane basins
 Goldrun--Landform: Dunes
 Kleck--Landform: Lake plains
 Davey--Landform: Sand sheets

Inclusion 1--Landform: Lake plains; shape of slope: concave

Inclusion 2--Landform: Spits

Major Component Description

Goldrun Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Eolian sand

Kleck Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 8 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Well drained

Dominant parent material: Alluvium derived from lacustrine sediments

Davey Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Goldrun: Indian ricegrass, basin big sagebrush, needleandthread

Kleck: Indian ricegrass, Wyoming big sagebrush, needleandthread, spiny hopsage

Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread

Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 2: Indian ricegrass, big sagebrush, bottlebrush squirreltail, needleandthread

Ecological Site

Goldrun: 024XY001NV

Kleck: 024XY017NV

Davey: 024XY017NV

Inclusion 1: 024XY003NV

Inclusion 2: 024XY017NV

360--Needle Peak silt loam

Composition

Major Components

Needle Peak silt loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Needle Peak silt loam, strongly saline, 0 to 2 percent slopes--7 percent

Inclusion 2: Benin silt loam, moderately saline, 0 to 2 percent slopes--4 percent

Inclusion 3: Dun Glen silt loam, 0 to 2 percent slopes--3 percent

Inclusion 4: Prideen silt loam, strongly saline, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Intermontane basins

Needle Peak--Landform: Stream terraces

Inclusion 1--Landform: Stream terraces; position on slope: lower

Inclusion 2--Landform: Lake terraces

Inclusion 3--Landform: Fan skirts; position on slope: upper

Inclusion 4--Landform: Stream terraces; position on slope: lower; shape of slope: concave

Major Component Description

Needle Peak Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 8 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Somewhat poorly drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Needle Peak: Basin big sagebrush, basin wildrye, black greasewood, rubber rabbitbrush

Inclusion 1: Alkali sacaton, black greasewood, inland saltgrass, rubber rabbitbrush

Inclusion 2: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 4: Black greasewood, inland saltgrass

Ecological Site

Needle Peak: 024XY006NV

Inclusion 1: 024XY007NV

Inclusion 2: 024XY003NV
 Inclusion 3: 024XY002NV
 Inclusion 4: 024XY011NV

363--Needle Peak-Batan-Goldrun association

Composition

Major Components

Needle Peak fine sandy loam, 0 to 2 percent slopes--35 percent
 Batan loamy fine sand, 0 to 2 percent slopes--30 percent
 Goldrun fine sand, 4 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Valmy loamy fine sand, 0 to 2 percent slopes--5 percent
 Inclusion 2: Batan fine sandy loam, moderately saline, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Needle Peak--Landform: Stream terraces
 Batan--Landform: Alluvial flats
 Goldrun--Landform: Dunes
 Inclusion 1--Landform: Basin-floor remnants; position on slope: upper
 Inclusion 2--Landform: Alluvial flats

Major Component Description

Needle Peak Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Batan Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Moderately well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Goldrun Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 8 inches

Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Dominant Present Vegetation

Needle Peak: Basin big sagebrush, basin wildrye, black greasewood, rubber rabbitbrush
 Batan: Wyoming big sagebrush, black greasewood, squirreltail
 Goldrun: Indian ricegrass, basin big sagebrush, hairy horsebrush, needleandthread
 Inclusion 1: Indian ricegrass, basin big sagebrush, needleandthread
 Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Needle Peak: 024XY006NV
 Batan: 024XY022NV
 Goldrun: 024XY001NV
 Inclusion 1: 024XY017NV
 Inclusion 2: 024XY003NV

370--Wieland association

Composition

Major Components

Wieland very fine sandy loam, 2 to 8 percent slopes--55 percent
 Wieland very gravelly loam, 15 to 30 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Burrita gravelly loam, warm, 8 to 15 percent slopes--5 percent
 Inclusion 2: Flue very fine sandy loam, dry, 2 to 4 percent slopes--2 percent
 Inclusion 3: Quomus gravelly loam, 15 to 30 percent slopes--2 percent
 Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Wieland--Landform: Fan remnants; geomorphic position: summit
 Wieland--Landform: Fan remnants; geomorphic position: backslope
 Inclusion 1--Landform: Pediments; geomorphic position: backslope
 Inclusion 2--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Inclusion 3--Landform: Fan remnants; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 4--Landform: Pediments

Major Component Description

Wieland Series

Elevation: 4,800 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Wieland Series

Elevation: 4,800 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Wieland: Thurber needlegrass, Wyoming big sagebrush, basin wildrye, bluebunch wheatgrass

Wieland: Thurber needlegrass, Wyoming big sagebrush, basin wildrye, bluebunch wheatgrass

Inclusion 1: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 3: Idaho fescue, Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 4: None

Ecological Site

Wieland: 025XY019NV

Wieland: 025XY019NV

Inclusion 1: 024XY035NV

Inclusion 2: 024XY020NV

Inclusion 3: 025XY014NV

Inclusion 4: none

380--Bullump-Tusel association

Composition

Major Components

Bullump cobbly loam, 30 to 75 percent slopes--45

percent

Tusel gravelly loam, dry, 30 to 75 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Cleavage gravelly loam, 30 to 50 percent slopes--7 percent

Inclusion 2: Reluctan gravelly loam, 30 to 50 percent slopes--3 percent

Inclusion 3: Rock outcrop--3 percent

Inclusion 4: Hackwood silt loam, 30 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Bullump--Landform: Mountains; aspect: south

Tusel--Landform: Mountains; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: shoulder; position on slope: upper; shape of slope: convex

Inclusion 2--Landform: Mountains; position on slope: lower; aspect: north

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Mountains; position on slope: lower; shape of slope: concave

Major Component Description

Bullump Series

Elevation: 6,500 to 7,800 feet

Precipitation: About 16 inches

Air temperature: About 43 degrees

Frost-free season: About 70 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Tusel Series

Elevation: 6,500 to 7,800 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Bullump: Antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush, mountain brome

Tusel: Columbia needlegrass, mountain big sagebrush, mountain brome, snowberry,

wheatgrass

- Inclusion 1: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, bluegrass, low sagebrush
 Inclusion 2: Idaho fescue, mountain big sagebrush
 Inclusion 3: None
 Inclusion 4: Groundsel, mountain brome, quaking aspen, slender wheatgrass, snowberry

Ecological Site

- Bullump: 025XY016NV
 Tusel: 025XY004NV
 Inclusion 1: 025XY024NV
 Inclusion 2: 024XY033NV
 Inclusion 3: none
 Inclusion 4: 025XY065NV

381--Bullump-Tusel-Hackwood association

Composition

Major Components

- Bullump gravelly loam, 30 to 50 percent slopes--40 percent
 Tusel gravelly loam, 30 to 50 percent slopes--30 percent
 Hackwood silt loam, 15 to 50 percent slopes--15 percent

Contrasting Inclusions

- Inclusion 1: Layview gravelly loam, 4 to 15 percent slopes--8 percent
 Inclusion 2: Rock outcrop--3 percent
 Inclusion 3: Dystric Cryochrepts, loamy-skeletal, mixed gravelly loam, cold, 30 to 50 percent slopes--3 percent
 Inclusion 4: Pachic Cryoborolls, loamy-skeletal, mixed silt loam, cold, 15 to 30 percent slopes--1 percent

Map Unit Setting

- Landscape position:* Mountains
 Bullump--Landform: Mountains; aspect: south
 Tusel--Landform: Mountains; aspect: north
 Hackwood--Landform: Mountains; shape of slope: concave; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: summit
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Mountains; geomorphic position: shoulder; position on slope: upper; shape of slope: concave
 Inclusion 4--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north

Major Component Description

Bullump Series

- Elevation:* 6,800 to 8,400 feet
Precipitation: About 16 inches
Air temperature: About 43 degrees
Frost-free season: About 70 days
Surface rock fragments: 3 percent cobbles; 20 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Colluvium derived from mixed rocks

Tusel Series

- Elevation:* 6,800 to 8,400 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Hackwood Series

- Elevation:* 6,800 to 8,400 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium and colluvium derived from volcanic rocks

Dominant Present Vegetation

- Bullump: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush, mountain brome
 Tusel: Columbia needlegrass, big sagebrush, mountain brome, snowberry
 Hackwood: Groundsel, mountain brome, quaking aspen, slender wheatgrass, snowberry
 Inclusion 1: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Inclusion 2: None
 Inclusion 3: Letterman needlegrass, tailcup lupine
 Inclusion 4: Needlegrass, quaking aspen

Ecological Site

- Bullump: 025XY016NV
 Tusel: 025XY004NV
 Hackwood: 025XY065NV
 Inclusion 1: 025XY024NV
 Inclusion 2: none

Inclusion 3: 025XY028NV

Inclusion 4: 025XY002NV

391--Aycab-Rock outcrop association

Composition

Major Components

Aycab very bouldery loamy coarse sand, 30 to 75 percent slopes--60 percent

Rock outcrop--25 percent

Contrasting Inclusions

Inclusion 1: Tosp stony loam, 30 to 50 percent slopes--7 percent

Inclusion 2: Ola bouldery loam, 15 to 50 percent slopes--5 percent

Inclusion 3: Entic Cryumbrepts, loamy-skeletal, mixed gravelly loam, 30 to 50 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains

Aycab--Landform: Mountains

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: lower; shape of slope: concave

Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; shape of slope: convex

Inclusion 3--Landform: Mountains; shape of slope: concave

Major Component Description

Aycab Series

Elevation: 8,000 to 9,700 feet

Precipitation: About 16 inches

Air temperature: About 43 degrees

Frost-free season: About 65 days

Surface rock fragments: 10 percent stones and boulders; 5 percent cobbles; 15 percent gravel

Surface layer texture: Very bouldery loamy coarse sand

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from granitic rocks

Rock outcrop Miscellaneous Area

Elevation: 8,000 to 9,700 feet

Dominant Present Vegetation

Aycab: Mountain big sagebrush, needlegrass, snowberry, spike fescue

Rock outcrop: None

Inclusion 1: Mountain brome, quaking aspen, snowberry, wheatgrass

Inclusion 2: Columbia needlegrass, Letterman needlegrass, basin wildrye, mountain big sagebrush, snowberry

Inclusion 3: Letterman needlegrass, tailcup lupine

Ecological Site

Aycab: 025XY076NV

Rock outcrop: None

Inclusion 1: 025XY065NV

Inclusion 2: 025XY004NV

Inclusion 3: 025XY028NV

403--Orovada fine sandy loam, 0 to 2 percent slopes

Composition

Major Components

Orovada fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Goldrun loamy fine sand, 4 to 15 percent slopes--5 percent

Inclusion 2: Dun Glen fine sandy loam, sand substratum, 0 to 2 percent slopes--3 percent

Inclusion 3: Weso very fine sandy loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Orovada--Landform: Fan skirts

Inclusion 1--Landform: Dunes

Inclusion 2--Landform: Fan skirts; position on slope: lower

Inclusion 3--Landform: Fan remnants; position on slope: upper

Major Component Description

Orovada Series

Elevation: 4,300 to 4,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Orovada: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Basin big sagebrush, needleandthread

Inclusion 2: Sandberg bluegrass, bud sagebrush,
winterfat
Inclusion 3: Bottlebrush squirreltail, bud sagebrush,
shadscale

Ecological Site

Orovada: 024XY020NV
Inclusion 1: 024XY001NV
Inclusion 2: 024XY014NV
Inclusion 3: 024XY002NV

**406--Orovada very fine sandy loam, 2 to 8
percent slopes**

Composition

Major Components

Orovada very fine sandy loam, 2 to 8 percent
slopes--90 percent

Contrasting Inclusions

Inclusion 1: Connel gravelly very fine sandy loam, 2
to 8 percent slopes--7 percent
Inclusion 2: Connel very gravelly fine sandy loam, 0
to 2 percent slopes, occasionally flooded--2
percent
Inclusion 3: Valmy fine sandy loam, 0 to 2 percent
slopes--1 percent

Map Unit Setting

Landscape position: Intermontane basins
Orovada--Landform: Fan skirts
Inclusion 1--Landform: Beach terraces
Inclusion 2--Landform: Drainageways
Inclusion 3--Landform: Alluvial flats; position on
slope: lower

Major Component Description

Orovada Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Orovada: Wyoming big sagebrush, bottlebrush
squirreltail, spiny hopsage
Inclusion 1: Wyoming big sagebrush, bottlebrush
squirreltail, spiny hopsage
Inclusion 2: Basin big sagebrush, basin wildrye,
rabbitbrush

Inclusion 3: Big sagebrush, black greasewood,
bottlebrush squirreltail

Ecological Site

Orovada: 024XY020NV
Inclusion 1: 024XY020NV
Inclusion 2: 024XY006NV
Inclusion 3: 024XY022NV

407--Orovada loam, 0 to 2 percent slopes

Composition

Major Components

Orovada loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Enko fine sandy loam, dry, 0 to 2
percent slopes--5 percent
Inclusion 2: Rebel loam, 0 to 2 percent slopes--5
percent
Inclusion 3: Broyles very fine sandy loam, 0 to 2
percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
Orovada--Landform: Fan skirts
Inclusion 1--Landform: Fan skirts; position on slope:
upper
Inclusion 2--Landform: Drainageways; position on
slope: upper
Inclusion 3--Landform: Fan skirts; position on slope:
lower

Major Component Description

Orovada Series

Elevation: 4,300 to 4,700 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Orovada: Wyoming big sagebrush, bluegrass,
bottlebrush squirreltail
Inclusion 1: Wyoming big sagebrush, bottlebrush
squirreltail, bud sagebrush, spiny hopsage
Inclusion 2: Sandberg bluegrass, Wyoming big
sagebrush, basin wildrye
Inclusion 3: Bottlebrush squirreltail, bud sagebrush,
shadscale

Ecological Site

Orovada: 024XY005NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY005NV
 Inclusion 3: 024XY002NV

409--Orovada-Goldrun association**Composition****Major Components**

Orovada fine sandy loam, 2 to 4 percent slopes--50 percent
 Goldrun loamy fine sand, 4 to 8 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: Orovada loamy fine sand, 2 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Orovada--Landform: Fan skirts
 Goldrun--Landform: Dunes
 Inclusion 1--Landform: Fan skirts

Major Component Description**Orovada Series**

Elevation: 4,300 to 4,600 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Goldrun Series

Elevation: 4,300 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Dominant Present Vegetation

Orovada: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Goldrun: Indian ricegrass, basin big sagebrush, horsebrush, needleandthread
 Inclusion 1: Indian ricegrass, big sagebrush, needleandthread

Ecological Site

Orovada: 024XY020NV
 Goldrun: 024XY001NV
 Inclusion 1: 024XY017NV

410--Orovada-Bliss association**Composition****Major Components**

Orovada loamy fine sand, 2 to 4 percent slopes--45 percent
 Bliss loamy fine sand, 4 to 8 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: Shabliss loamy fine sand, 4 to 15 percent slopes--5 percent
 Inclusion 2: Goldrun fine sand, 4 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Orovada--Landform: Fan skirts
 Bliss--Landform: Fan remnants
 Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Inclusion 2--Landform: Dunes

Major Component Description**Orovada Series**

Elevation: 4,400 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Bliss Series

Elevation: 4,400 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Orovada: Indian ricegrass, big sagebrush, needleandthread

Bliss: Indian ricegrass, big sagebrush,
needleandthread
Inclusion 1: Indian ricegrass, Wyoming big
sagebrush, needleandthread
Inclusion 2: Indian ricegrass, basin big sagebrush,
hairy horsebrush

Ecological Site

Orovada: 024XY017NV
Bliss: 024XY017NV
Inclusion 1: 024XY017NV
Inclusion 2: 024XY001NV

411--Orovada-Dugchip association

Composition

Major Components

Orovada very fine sandy loam, 2 to 4 percent
slopes--55 percent
Dugchip very fine sandy loam, 4 to 8 percent
slopes--30 percent

Contrasting Inclusions

Inclusion 1: Weso fine sandy loam, hardpan
substratum, 4 to 8 percent slopes--5 percent
Inclusion 2: Dewar loam, dry, 4 to 8 percent slopes--
5 percent
Inclusion 3: Bliss fine sandy loam, dry, 4 to 8
percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
Orovada--Landform: Fan skirts
Dugchip--Landform: Fan remnants; geomorphic
position: backslope
Inclusion 1--Landform: Fan remnants; geomorphic
position: summit; position on slope: upper;
aspect: south
Inclusion 2--Landform: Fan remnants; geomorphic
position: backslope; position on slope: upper
Inclusion 3--Landform: Fan remnants; geomorphic
position: backslope; aspect: north

Major Component Description

Orovada Series

Elevation: 4,400 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Dugchip Series

Elevation: 4,400 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Orovada: Wyoming big sagebrush, bottlebrush
squirreltail, spiny hopsage
Dugchip: Sandberg bluegrass, Wyoming big
sagebrush, bottlebrush squirreltail
Inclusion 1: Bottlebrush squirreltail, bud sagebrush,
shadscale
Inclusion 2: Wyoming big sagebrush, bottlebrush
squirreltail, spiny hopsage
Inclusion 3: Wyoming big sagebrush, bottlebrush
squirreltail, spiny hopsage

Ecological Site

Orovada: 024XY020NV
Dugchip: 024XY005NV
Inclusion 1: 024XY002NV
Inclusion 2: 024XY020NV
Inclusion 3: 024XY020NV

417--Orovada-Connel complex, 0 to 2 percent slopes

Composition

Major Components

Orovada very fine sandy loam, 0 to 2 percent
slopes--45 percent
Connel fine sandy loam, 0 to 2 percent slopes--40
percent

Contrasting Inclusions

Inclusion 1: Bliss fine sandy loam, dry, 2 to 4
percent slopes--9 percent
Inclusion 2: Weso fine sandy loam, 0 to 2 percent
slopes--4 percent
Inclusion 3: Bubus very fine sandy loam, 0 to 2
percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
Orovada--Landform: Fan skirts
Connel--Landform: Drainageways
Inclusion 1--Landform: Fan remnants; position on
slope: upper

Inclusion 2--Landform: Fan skirts; position on slope: lower

Inclusion 3--Landform: Alluvial flats; position on slope: lower

Major Component Description

Orovada Series

Elevation: 4,300 to 4,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Connel Series

Elevation: 4,300 to 4,500 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Orovada: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Connel: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Big sagebrush, black greasewood, bottlebrush squirreltail

Ecological Site

Orovada: 024XY020NV

Connel: 024XY020NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY002NV

Inclusion 3: 024XY022NV

420--Bubus silt loam, 0 to 2 percent slopes

Composition

Major Components

Bubus silt loam, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Bubus silt loam, strongly saline, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Bubus--Landform: Alluvial flats

Inclusion 1--Landform: Basin-floor remnants; position on slope: upper

Major Component Description

Bubus Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Bubus: Black greasewood, bottlebrush squirreltail, inland saltgrass, shadscale

Inclusion 1: Black greasewood

Ecological Site

Bubus: 024XY003NV

Inclusion 1: 024XY011NV

431--Preble very fine sandy loam

Composition

Major Components

Preble very fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Valmy fine sandy loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Goldrun fine sand, 0 to 2 percent slopes--3 percent

Inclusion 3: Sonoma silt loam, strongly saline, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Preble--Landform: Alluvial flats

Inclusion 1--Landform: Basin-floor remnants; position on slope: upper

Inclusion 2--Landform: Sand sheets

Inclusion 3--Landform: Drainageways

Major Component Description

Preble Series

Elevation: 4,200 to 4,500 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Dominant Present Vegetation

Preble: Black greasewood, inland saltgrass
 Inclusion 1: Big sagebrush, black greasewood, bottlebrush squirreltail
 Inclusion 2: Indian ricegrass, basin big sagebrush
 Inclusion 3: Alkali sacaton, black greasewood, inland saltgrass, rubber rabbitbrush

Ecological Site

Preble: 024XY011NV
 Inclusion 1: 024XY022NV
 Inclusion 2: 024XY001NV
 Inclusion 3: 024XY007NV

432--Preble-Goldrun-Playas association

Composition

Major Components

Preble silt loam, 0 to 2 percent slopes--40 percent
 Goldrun fine sand, slightly saline, 4 to 15 percent slopes--30 percent
 Playas silty clay loam, 0 to 1 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Bubus very fine sandy loam, moderately saline, 0 to 2 percent slopes--5 percent
 Inclusion 2: Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Preble--Landform: Alluvial flats
 Goldrun--Landform: Dunes
 Playas--Landform: Playas
 Inclusion 1--Landform: Basin-floor remnants; position on slope: upper
 Inclusion 2--Landform: Drainageways

Major Component Description

Preble Series

Elevation: 4,300 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained

Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Goldrun Series

Elevation: 4,300 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Playas Miscellaneous Area

Elevation: 4,300 to 4,500 feet
Surface layer texture: Silty clay loam

Dominant Present Vegetation

Preble: Black greasewood, inland saltgrass
 Goldrun: Indian ricegrass, black greasewood, horsebrush
 Playas: None
 Inclusion 1: Black greasewood, inland saltgrass, shadscale
 Inclusion 2: Alkali sacaton, basin wildrye, black greasewood, inland saltgrass

Ecological Site

Preble: 024XY011NV
 Goldrun: 024XY066NV
 Playas: None
 Inclusion 1: 024XY003NV
 Inclusion 2: 024XY007NV

435--Preble silt loam

Composition

Major Components

Preble silt loam, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Needle Peak silt loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Preble--Landform: Lake plains
 Inclusion 1--Landform: Drainageways

Major Component Description

Preble Series

Elevation: 4,100 to 4,300 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees

Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Dominant Present Vegetation

Preble: Basin wildrye, black greasewood, inland saltgrass, seepweed
 Inclusion 1: Basin big sagebrush, basin wildrye, black greasewood

Ecological Site

Preble: 024XY011NV
 Inclusion 1: 024XY006NV

436--Preble-Valmy association

Composition

Major Components

Preble fine sandy loam, 0 to 2 percent slopes--45 percent
 Valmy fine sandy loam, 2 to 4 percent slopes--30 percent
 Valmy very fine sandy loam, 0 to 2 percent slopes, occasionally flooded--15 percent

Contrasting Inclusions

Inclusion 1: Clementine silt loam, slightly saline, 0 to 2 percent slopes--5 percent
 Inclusion 2: Rio King silt loam, 0 to 2 percent slopes--3 percent
 Inclusion 3: Snapp silt loam, moist, 2 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Preble--Landform: Basin-floor remnants; position on slope: lower
 Valmy--Landform: Basin-floor remnants; position on slope: upper
 Valmy--Landform: Inset fans
 Inclusion 1--Landform: Flood plains; position on slope: lower
 Inclusion 2--Landform: Drainageways
 Inclusion 3--Landform: Fan remnants; position on slope: upper

Major Component Description

Preble Series

Elevation: 4,300 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days

Surface layer texture: Fine sandy loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Valmy Series

Elevation: 4,300 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Valmy Series

Elevation: 4,300 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Preble: Black greasewood, inland saltgrass
 Valmy: Basin big sagebrush, basin wildrye, black greasewood
 Valmy: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 1: Basin wildrye, creeping wildrye, willow
 Inclusion 2: Basin big sagebrush, basin wildrye, rubber rabbitbrush
 Inclusion 3: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Preble: 024XY011NV
 Valmy: 024XY022NV
 Valmy: 024XY006NV
 Inclusion 1: 025XY001NV
 Inclusion 2: 025XY003NV
 Inclusion 3: 024XY005NV

437--Preble-Davey association

Composition

Major Components

Preble very fine sandy loam, 0 to 2 percent slopes--50 percent
 Davey loamy fine sand, moderately saline, 2 to 4 percent slopes--40 percent

Contrasting Inclusions

- Inclusion 1: Broyles fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Goldrun fine sand, 4 to 8 percent slopes--3 percent
 Inclusion 3: Playas--2 percent

Map Unit Setting

- Landscape position:* Intermontane basins
 Preble--Landform: Alluvial flats
 Davey--Landform: Sand sheets
 Inclusion 1--Landform: Fan skirts; position on slope: upper
 Inclusion 2--Landform: Dunes
 Inclusion 3--Landform: Playas

Major Component Description**Preble Series**

- Elevation:* 4,300 to 4,800 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Davey Series

- Elevation:* 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

- Preble: Black greasewood, inland saltgrass
 Davey: Big sagebrush, black greasewood, inland saltgrass
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: Indian ricegrass, basin big sagebrush
 Inclusion 3: None

Ecological Site

- Preble: 024XY011NV
 Davey: 024XY022NV
 Inclusion 1: 024XY002NV
 Inclusion 2: 024XY001NV

Inclusion 3: none

438--Preble-Bubus association**Composition****Major Components**

- Preble very fine sandy loam, moist, 0 to 2 percent slopes--45 percent
 Bubus very fine sandy loam, 0 to 2 percent slopes--40 percent

Contrasting Inclusions

- Inclusion 1: Valmy very fine sandy loam, 0 to 2 percent slopes, occasionally flooded--8 percent
 Inclusion 2: Prideen silt loam, strongly saline, 0 to 2 percent slopes--3 percent
 Inclusion 3: Sonoma silt loam, strongly saline, 0 to 2 percent slopes--2 percent
 Inclusion 4: Prideen silt loam, 0 to 2 percent slopes, rarely flooded--2 percent

Map Unit Setting

- Landscape position:* Intermontane basins
 Preble--Landform: Alluvial flats
 Bubus--Landform: Alluvial flats
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Alluvial flats; position on slope: lower; shape of slope: concave
 Inclusion 3--Landform: Drainageways; position on slope: lower
 Inclusion 4--Landform: Alluvial flats; geomorphic position: backslope; position on slope: lower

Major Component Description**Preble Series**

- Elevation:* 4,100 to 4,300 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Bubus Series

- Elevation:* 4,100 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Preble: Torrey quailbush, black greasewood, bottlebrush squirreltail, seepweed
 Bubus: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 2: Black greasewood, inland saltgrass
 Inclusion 3: Basin wildrye, black greasewood, inland saltgrass, rubber rabbitbrush
 Inclusion 4: Black greasewood, iodinebush, seepweed, shadscale

Ecological Site

Preble: 024XY015NV
 Bubus: 024XY003NV
 Inclusion 1: 024XY006NV
 Inclusion 2: 024XY011NV
 Inclusion 3: 024XY007NV
 Inclusion 4: 024XY010NV

440--Prideen silt loam, strongly saline

Composition

Major Components

Prideen silt loam, strongly saline, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Needle Peak silt loam, 0 to 2 percent slopes--8 percent
 Inclusion 2: Raglan silt loam, strongly saline, 0 to 2 percent slopes--7 percent

Map Unit Setting

Landscape position: Intermontane basins
 Prideen--Landform: Alluvial flats
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Fan skirts; position on slope: upper

Major Component Description

Prideen Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Prideen: Black greasewood, seepweed
 Inclusion 1: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Prideen: 024XY011NV
 Inclusion 1: 024XY006NV
 Inclusion 2: 024XY003NV

441--Prideen silt loam

Composition

Major Components

Prideen silt loam, 0 to 2 percent slopes, rarely flooded--85 percent

Contrasting Inclusions

Inclusion 1: Bubus very fine sandy loam, moderately saline, 0 to 2 percent slopes--8 percent
 Inclusion 2: Wendane silt loam, 0 to 2 percent slopes--7 percent

Map Unit Setting

Landscape position: Intermontane basins
 Prideen--Landform: Stream terraces
 Inclusion 1--Landform: Basin-floor remnants; position on slope: upper
 Inclusion 2--Landform: Stream terraces

Major Component Description

Prideen Series

Elevation: 4,300 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Prideen: Black greasewood, iodinebush, sickle saltbush
 Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale
 Inclusion 2: Black greasewood, inland saltgrass

Ecological Site

Prideen: 024XY010NV
 Inclusion 1: 024XY003NV
 Inclusion 2: 024XY011NV

452--Kingsriver loam, 0 to 2 percent slopes**Composition****Major Components**

Kingsriver loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Aeric Fluvaquents, sandy, mixed, mesic coarse sand, 0 to 2 percent slopes--6 percent

Inclusion 2: Kingsriver loam, drained, 0 to 2 percent slopes--4 percent

Map Unit Setting

Landscape position: Intermontane basins

Kingsriver--Landform: Flood plains

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Stream terraces

Major Component Description**Kingsriver Series**

Elevation: 4,200 to 4,400 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Loam

Drainage class: Very poorly drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Kingsriver: Basin wildrye, bluegrass, creeping wildrye, rush

Inclusion 1: Creeping wildrye, rush

Inclusion 2: Basin big sagebrush, basin wildrye

Ecological Site

Kingsriver: 025XY001NV

Inclusion 1: 025XY001NV

Inclusion 2: 025XY003NV

453--Kingsriver loam, drained, 0 to 2 percent slopes**Composition****Major Components**

Kingsriver loam, drained, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Kingsriver loam, 0 to 2 percent slopes--6 percent

Inclusion 2: Rio King loam, slightly saline, 0 to 2 percent slopes--3 percent

Inclusion 3: Typic Fluvaquents, loamy-skeletal, mixed, mesic very gravelly sand, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Intermontane basins

Kingsriver--Landform: Stream terraces

Inclusion 1--Landform: Flood plains

Inclusion 2--Landform: Stream terraces; position on slope: upper

Inclusion 3--Landform: Drainageways

Major Component Description**Kingsriver Series**

Elevation: 4,200 to 4,400 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Loam

Drainage class: Very poorly drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Kingsriver: Basin big sagebrush, basin wildrye

Inclusion 1: Creeping wildrye, rush, willow

Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood

Inclusion 3: Bluegrass, tufted hairgrass

Ecological Site

Kingsriver: 025XY003NV

Inclusion 1: 025XY001NV

Inclusion 2: 024XY006NV

Inclusion 3: 025XY005NV

460--Rad loamy fine sand, 4 to 8 percent slopes**Composition****Major Components**

Rad loamy fine sand, 4 to 8 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Bliss fine sandy loam, dry, 4 to 8 percent slopes--8 percent

Inclusion 2: Valmy fine sandy loam, 4 to 8 percent slopes--7 percent

Map Unit Setting

Landscape position: Intermontane basins

Rad--Landform: Fan skirts

Inclusion 1--Landform: Fan remnants; position on slope: upper
Inclusion 2--Landform: Fan skirts; position on slope: lower

Major Component Description

Rad Series

Elevation: 4,200 to 4,700 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Rad: Indian ricegrass, big sagebrush, needleandthread, spiny hopsage
Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, spiny hopsage
Inclusion 2: Big sagebrush, black greasewood, bottlebrush squirreltail

Ecological Site

Rad: 024XY017NV
Inclusion 1: 024XY020NV
Inclusion 2: 024XY022NV

461--Rad fine sandy loam, 0 to 2 percent slopes

Composition

Major Components

Rad fine sandy loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Bliss fine sandy loam, dry, 0 to 2 percent slopes--8 percent
Inclusion 2: Valmy fine sandy loam, 0 to 2 percent slopes--7 percent

Map Unit Setting

Landscape position: Fan piedmonts
Rad--Landform: Fan skirts
Inclusion 1--Landform: Fan remnants
Inclusion 2--Landform: Fan skirts; position on slope: lower

Major Component Description

Rad Series

Elevation: 4,200 to 4,600 feet

Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Rad: Indian ricegrass, big sagebrush, needleandthread
Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, spiny hopsage
Inclusion 2: Big sagebrush, black greasewood, bottlebrush squirreltail

Ecological Site

Rad: 024XY017NV
Inclusion 1: 024XY020NV
Inclusion 2: 024XY022NV

462--Rad fine sandy loam, 2 to 4 percent slopes

Composition

Major Components

Rad fine sandy loam, 2 to 4 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Bliss fine sandy loam, dry, 2 to 4 percent slopes--8 percent
Inclusion 2: Valmy fine sandy loam, 2 to 4 percent slopes--7 percent

Map Unit Setting

Landscape position: Intermontane basins
Rad--Landform: Fan skirts
Inclusion 1--Landform: Fan remnants
Inclusion 2--Landform: Fan skirts; position on slope: lower

Major Component Description

Rad Series

Elevation: 4,200 to 4,600 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Rad: Indian ricegrass, big sagebrush,
needleandthread
Inclusion 1: Sandberg bluegrass, Wyoming big
sagebrush, spiny hopsage
Inclusion 2: Big sagebrush, black greasewood,
bottlebrush squirreltail

Ecological Site

Rad: 024XY017NV
Inclusion 1: 024XY020NV
Inclusion 2: 024XY022NV

470--Raglan silt loam, 0 to 2 percent slopes***Composition***

Major Components
Raglan silt loam, 0 to 2 percent slopes--90 percent
Contrasting Inclusions
Inclusion 1: Needle Peak silt loam, 0 to 2 percent
slopes--5 percent
Inclusion 2: Prideen silt loam, moderately saline, 0
to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
Raglan--Landform: Fan skirts
Inclusion 1--Landform: Drainageways
Inclusion 2--Landform: Basin-floor remnants; position
on slope: lower

Major Component Description

Raglan Series
Elevation: 4,200 to 4,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Raglan: Bottlebrush squirreltail, bud sagebrush,
shadscale
Inclusion 1: Basin big sagebrush, basin wildrye,
black greasewood
Inclusion 2: Black greasewood, shadscale

Ecological Site

Raglan: 024XY002NV
Inclusion 1: 024XY006NV
Inclusion 2: 024XY003NV

471--Raglan silt loam, strongly saline, 0 to 2 percent slopes***Composition***

Major Components
Raglan silt loam, strongly saline, 0 to 2 percent
slopes--85 percent
Contrasting Inclusions
Inclusion 1: Dun Glen silt loam, 0 to 2 percent
slopes--4 percent
Inclusion 2: Needle Peak silt loam, 0 to 2 percent
slopes--4 percent
Inclusion 3: Prideen silt loam, moderately saline, 0
to 2 percent slopes--3 percent
Inclusion 4: Kleck silt loam, slightly saline, 0 to 2
percent slopes--4 percent

Map Unit Setting

Landscape position: Intermontane basins
Raglan--Landform: Fan skirts
Inclusion 1--Landform: Fan skirts; position on slope:
upper
Inclusion 2--Landform: Drainageways
Inclusion 3--Landform: Alluvial flats; position on
slope: lower
Inclusion 4--Landform: Lake plains; position on
slope: lower

Major Component Description

Raglan Series
Elevation: 4,200 to 4,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Raglan: Black greasewood, bottlebrush squirreltail,
shadscale
Inclusion 1: Bottlebrush squirreltail, bud sagebrush,
shadscale
Inclusion 2: Basin big sagebrush, basin wildrye,
black greasewood
Inclusion 3: Black greasewood, bottlebrush
squirreltail, shadscale
Inclusion 4: Wyoming big sagebrush, black
greasewood, bottlebrush squirreltail

Ecological Site

Raglan: 024XY003NV
Inclusion 1: 024XY002NV

Inclusion 2: 024XY006NV
 Inclusion 3: 024XY003NV
 Inclusion 4: 024XY022NV

474--Raglan-Kleck complex, 0 to 2 percent slopes

Composition

Major Components

Raglan silt loam, strongly saline, 0 to 2 percent slopes--45 percent
 Kleck very fine sandy loam, 0 to 2 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Prideen silt loam, 0 to 2 percent slopes, occasionally flooded--10 percent
 Inclusion 2: Wendane silt loam, 0 to 2 percent slopes--3 percent
 Inclusion 3: Wendane silt loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Raglan--Landform: Lake terraces; position on slope: upper
 Kleck--Landform: Lake terraces; position on slope: lower
 Inclusion 1--Landform: Stream terraces
 Inclusion 2--Landform: Flood plains
 Inclusion 3--Landform: Stream terraces

Major Component Description

Raglan Series

Elevation: 4,100 to 4,200 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Kleck Series

Elevation: 4,100 to 4,200 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from

lacustrine sediments

Dominant Present Vegetation

Raglan: Black greasewood, bottlebrush squirreltail, shadscale
 Kleck: Wyoming big sagebrush, basin wildrye, black greasewood, bottlebrush squirreltail
 Inclusion 1: Basin wildrye, black greasewood
 Inclusion 2: Black greasewood, inland saltgrass
 Inclusion 3: Torrey quailbush, basin big sagebrush, basin wildrye, black greasewood

Ecological Site

Raglan: 024XY003NV
 Kleck: 024XY022NV
 Inclusion 1: 024XY008NV
 Inclusion 2: 024XY011NV
 Inclusion 3: 024XY015NV

480--Rebel loam, 0 to 2 percent slopes

Composition

Major Components

Rebel loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: McConnel loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Needle Peak silt loam, 0 to 2 percent slopes--5 percent
 Inclusion 3: Orovada loamy fine sand, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Rebel--Landform: Inset fans
 Inclusion 1--Landform: Drainageways; position on slope: upper
 Inclusion 2--Landform: Drainageways; position on slope: lower
 Inclusion 3--Landform: Fan skirts

Major Component Description

Rebel Series

Elevation: 4,300 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from

mixed rocks

Dominant Present Vegetation

Rebel: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Rebel: 024XY005NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY006NV

Inclusion 3: 024XY017NV

487--Rebel fine sandy loam, 0 to 2 percent slopes

Composition

Major Components

Rebel fine sandy loam, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Enko loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Rebel--Landform: Inset fans

Inclusion 1--Landform: Fan skirts

Major Component Description

Rebel Series

Elevation: 4,100 to 4,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Rebel: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Rebel: 024XY020NV

Inclusion 1: 024XY005NV

490--Rose Creek loam

Composition

Major Components

Rose Creek loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Humboldt silty clay loam, 0 to 2 percent slopes--8 percent

Inclusion 2: Sonoma silt loam, drained, 0 to 2 percent slopes--7 percent

Map Unit Setting

Landscape position: Intermontane basins

Rose Creek--Landform: Levees (stream)

Inclusion 1--Landform: Flood plains

Inclusion 2--Landform: Inset fans

Major Component Description

Rose Creek Series

Elevation: 4,300 to 4,600 feet

Precipitation: About 8 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loam

Drainage class: Poorly drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Rose Creek: Basin wildrye, creeping wildrye, rush, willow

Inclusion 1: Basin wildrye, creeping wildrye, rush

Inclusion 2: Basin wildrye, big sagebrush, black greasewood, rabbitbrush

Ecological Site

Rose Creek: 025XY001NV

Inclusion 1: 025XY001NV

Inclusion 2: 024XY006NV

491--Rose Creek silt loam, drained

Composition

Major Components

Rose Creek silt loam, drained, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Sonoma silty clay loam, strongly saline, 0 to 2 percent slopes--5 percent

Inclusion 2: Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--5 percent

Map Unit Setting

Landscape position: Intermontane basins
Rose Creek--Landform: Flood plains
Inclusion 1--Landform: Sloughs
Inclusion 2--Landform: Basin-floor remnants

Major Component Description

Rose Creek Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Rose Creek: Alkali sacaton, basin wildrye, black greasewood, inland saltgrass
Inclusion 1: Basin wildrye, black greasewood, inland saltgrass
Inclusion 2: Basin wildrye, black greasewood, inland saltgrass

Ecological Site

Rose Creek: 024XY007NV
Inclusion 1: 024XY007NV
Inclusion 2: 024XY007NV

492--Rose Creek silty clay loam

Composition

Major Components

Rose Creek silty clay loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Humboldt silty clay loam, 0 to 2 percent slopes--5 percent
Inclusion 2: Sonoma silty clay loam, 0 to 2 percent slopes, frequently flooded--5 percent

Map Unit Setting

Landscape position: Intermontane basins
Rose Creek--Landform: Levees (stream)
Inclusion 1--Landform: Sloughs
Inclusion 2--Landform: Flood plains

Major Component Description

Rose Creek Series

Elevation: 4,200 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silty clay loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Rose Creek: Basin wildrye, creeping wildrye, rush
Inclusion 1: Basin wildrye, creeping wildrye, rush
Inclusion 2: Basin wildrye, creeping wildrye, rush

Ecological Site

Rose Creek: 025XY001NV
Inclusion 1: 025XY001NV
Inclusion 2: 025XY001NV

501--Enko loamy very fine sand, 0 to 2 percent slopes

Composition

Major Components

Enko loamy very fine sand, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Kelk silt loam, 0 to 2 percent slopes, rarely flooded--10 percent
Inclusion 2: Goldrun loamy fine sand, 4 to 15 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
Enko--Landform: Fan skirts
Inclusion 1--Landform: Drainageways
Inclusion 2--Landform: Dunes

Major Component Description

Enko Series

Elevation: 4,500 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy very fine sand
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Enko: Indian ricegrass, big sagebrush, bottlebrush squirreltail, needleandthread

Inclusion 1: Basin big sagebrush, basin wildrye

Inclusion 2: Indian ricegrass, basin big sagebrush, spiny hopsage

Ecological Site

Enko: 024XY017NV

Inclusion 1: 024XY006NV

Inclusion 2: 024XY001NV

502--Enko-Goldrun association***Composition*****Major Components**

Enko loamy very fine sand, 2 to 8 percent slopes--70 percent

Goldrun fine sand, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Bliss loamy fine sand, 4 to 8 percent slopes--5 percent

Inclusion 2: Weso fine sandy loam, hardpan substratum, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Enko--Landform: Fan skirts

Goldrun--Landform: Dunes

Inclusion 1--Landform: Fan remnants; position on slope: upper

Inclusion 2--Landform: Fan remnants; position on slope: lower; aspect: south

Major Component Description**Enko Series**

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy very fine sand

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Goldrun Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Eolian sand

Dominant Present Vegetation

Enko: Indian ricegrass, Wyoming big sagebrush, needleandthread

Goldrun: Indian ricegrass, basin big sagebrush

Inclusion 1: Indian ricegrass, big sagebrush, needleandthread

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Enko: 024XY017NV

Goldrun: 024XY001NV

Inclusion 1: 024XY017NV

Inclusion 2: 024XY002NV

503--Enko very fine sandy loam, 0 to 2 percent slopes***Composition*****Major Components**

Enko very fine sandy loam, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Orovada very fine sandy loam, 0 to 2 percent slopes--3 percent

Inclusion 2: Goldrun fine sand, 4 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Enko--Landform: Fan skirts

Inclusion 1--Landform: Fan skirts; position on slope: lower

Inclusion 2--Landform: Dunes

Major Component Description**Enko Series**

Elevation: 4,300 to 4,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Enko: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Wyoming big sagebrush, bottlebrush

squirreltail, spiny hopsage
Inclusion 2: Indian ricegrass, basin big sagebrush

Ecological Site

Enko: 024XY020NV
Inclusion 1: 024XY020NV
Inclusion 2: 024XY001NV

504--Enko-Shabliss complex, 2 to 8 percent slopes

Composition

Major Components

Enko very fine sandy loam, 2 to 8 percent slopes--60 percent
Shabliss very fine sandy loam, dry, 2 to 4 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Rebel very fine sandy loam, 2 to 4 percent slopes--10 percent
Inclusion 2: Chiara fine sandy loam, dry, 4 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
Enko--Landform: Fan skirts
Shabliss--Landform: Fan remnants
Inclusion 1--Landform: Inset fans
Inclusion 2--Landform: Fan remnants; geomorphic position: backslope

Major Component Description

Enko Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Shabliss Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Enko: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
Shabliss: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Enko: 024XY020NV
Shabliss: 024XY020NV
Inclusion 1: 024XY005NV
Inclusion 2: 024XY020NV

505--Enko very fine sandy loam, 2 to 8 percent slopes

Composition

Major Components

Enko very fine sandy loam, 2 to 8 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Shabliss very fine sandy loam, dry, 2 to 4 percent slopes--7 percent
Inclusion 2: Rebel loam, 2 to 4 percent slopes--6 percent
Inclusion 3: Orovada very fine sandy loam, 8 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
Enko--Landform: Fan skirts
Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
Inclusion 2--Landform: Inset fans; position on slope: upper
Inclusion 3--Landform: Fan remnants; geomorphic position: backslope; position on slope: upper

Major Component Description

Enko Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Enko: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: Wyoming big sagebrush, bluegrass, spiny hopsage

Ecological Site

Enko: 024XY020NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY005NV
 Inclusion 3: 024XY020NV

507--Enko-Shabliss-Orovada association***Composition*****Major Components**

Enko fine sandy loam, 2 to 8 percent slopes--60 percent
 Shabliss very fine sandy loam, 15 to 30 percent slopes--15 percent
 Orovada very fine sandy loam, 2 to 8 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Goldrun fine sand, 8 to 15 percent slopes--8 percent
 Inclusion 2: Broyles fine sandy loam, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Enko--Landform: Fan skirts
 Shabliss--Landform: Fan remnants; geomorphic position: backslope
 Orovada--Landform: Inset fans
 Inclusion 1--Landform: Dunes
 Inclusion 2--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Major Component Description**Enko Series**

Elevation: 4,300 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Shabliss Series

Elevation: 4,300 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Orovada Series

Elevation: 4,300 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Enko: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Shabliss: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Orovada: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Indian ricegrass, basin big sagebrush
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Enko: 024XY005NV
 Shabliss: 024XY005NV
 Orovada: 024XY020NV
 Inclusion 1: 024XY001NV
 Inclusion 2: 024XY002NV

511--Mazuma-Trocken association***Composition*****Major Components**

Mazuma very fine sandy loam, 2 to 4 percent slopes--70 percent
 Trocken gravelly very fine sandy loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Beoska gravelly fine sandy loam, warm, 2 to 8 percent slopes--5 percent
 Inclusion 2: Bluewing gravelly sandy loam, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Mazuma--Landform: Lagoons

Trocken--Landform: Longshore bars (relict)

Inclusion 1--Landform: Fan remnants; position on slope: upper

Inclusion 2--Landform: Drainageways

Major Component Description**Mazuma Series**

Elevation: 4,100 to 4,300 feet

Precipitation: About 7 inches

Air temperature: About 51 degrees

Frost-free season: About 120 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Trocken Series

Elevation: 4,100 to 4,300 feet

Precipitation: About 6 inches

Air temperature: About 52 degrees

Frost-free season: About 120 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Mazuma: Sandberg bluegrass, bud sagebrush, shadscale

Trocken: Sandberg bluegrass, bud sagebrush, shadscale

Inclusion 1: Bailey greasewood, Sandberg bluegrass, shadscale

Inclusion 2: Bailey greasewood, Sandberg bluegrass, shadscale

Ecological Site

Mazuma: 027XY013NV

Trocken: 027XY013NV

Inclusion 1: 027XY019NV

Inclusion 2: 027XY019NV

520--Lunder-Devada association**Composition****Major Components**

Lunder cobbly loam, 2 to 8 percent slopes--50 percent

Devada cobbly loam, 4 to 15 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Xipe gravelly silt loam, drained, 0 to 4 percent slopes--5 percent

Inclusion 2: Rock outcrop--5 percent

Map Unit Setting

Landscape position: Hills and intermontane basins

Lunder--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Devada--Landform: Hills; position on slope: upper

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Hills

Major Component Description**Lunder Series**

Elevation: 4,700 to 5,800 feet

Precipitation: About 12 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface rock fragments: 20 percent cobbles; 10 percent gravel

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from volcanic rocks

Devada Series

Elevation: 4,700 to 5,800 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Lunder: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Devada: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 1: Basin big sagebrush, basin wildrye

Inclusion 2: None

Ecological Site

Lunder: 025XY018NV

Devada: 025XY018NV

Inclusion 1: 025XY003NV

Inclusion 2: none

522--Lunder-Hunnton association***Composition*****Major Components**

Lunder extremely cobbly clay loam, 2 to 8 percent slopes--55 percent

Hunnton cobbly loam, 2 to 8 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Devada very cobbly loam, 8 to 30 percent slopes--7 percent

Inclusion 2: Rodock very stony clay loam, 2 to 8 percent slopes--5 percent

Inclusion 3: Xipe very stony loam, drained, 2 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts

Lunder--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Hunnton--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Inclusion 1--Landform: Hills; position on slope: upper

Inclusion 2--Landform: Inset fans; position on slope: upper

Inclusion 3--Landform: Drainageways

Major Component Description**Lunder Series**

Elevation: 4,500 to 5,500 feet

Precipitation: About 12 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface rock fragments: 3 percent stones and boulders; 35 percent cobbles; 35 percent gravel

Surface layer texture: Extremely cobbly clay loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from volcanic rocks

Hunnton Series

Elevation: 4,500 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Lunder: Sandberg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush

Hunnton: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush

Inclusion 2: Basin wildrye, big sagebrush

Inclusion 3: Bluegrass, rose, rush

Ecological Site

Lunder: 023XY060NV

Hunnton: 024XY005NV

Inclusion 1: 023XY060NV

Inclusion 2: 024XY013NV

Inclusion 3: 023XY013NV

530--Shabliss very fine sandy loam, 2 to 15 percent slopes***Composition*****Major Components**

Shabliss very fine sandy loam, 2 to 15 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Bliss loam, dry, 2 to 8 percent slopes--8 percent

Inclusion 2: Orovada very fine sandy loam, 2 to 8 percent slopes--7 percent

Map Unit Setting

Landscape position: Fan piedmonts

Shabliss--Landform: Fan remnants

Inclusion 1--Landform: Fan remnants; position on slope: lower

Inclusion 2--Landform: Inset fans

Major Component Description**Shabliss Series**

Elevation: 4,400 to 5,300 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Shabliss: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Wyoming big sagebrush, bottlebrush

squirreltail, spiny hopsage

Ecological Site

Shabliss: 024XY005NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY020NV

532--Shabliss-Enko-Valmy association

Composition

Major Components

Shabliss very fine sandy loam, dry, 2 to 8 percent slopes--40 percent

Enko very fine sandy loam, 2 to 8 percent slopes--30 percent

Valmy fine sandy loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Goldrun fine sand, 4 to 30 percent slopes--5 percent

Inclusion 2: Chiara fine sandy loam, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Shabliss--Landform: Fan remnants; geomorphic position: summit

Enko--Landform: Fan aprons

Valmy--Landform: Inset fans

Inclusion 1--Landform: Dunes

Inclusion 2--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Major Component Description

Shabliss Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Enko Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Valmy Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 8 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Shabliss: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Enko: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Valmy: Big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 1: Indian ricegrass, basin big sagebrush

Inclusion 2: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush

Ecological Site

Shabliss: 024XY020NV

Enko: 024XY020NV

Valmy: 024XY022NV

Inclusion 1: 024XY001NV

Inclusion 2: 024XY005NV

533--Shabliss-Connel association

Composition

Major Components

Shabliss fine sandy loam, 4 to 15 percent slopes--60 percent

Connel fine sandy loam, 4 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Zevadez gravelly very fine sandy loam, 30 to 50 percent slopes--9 percent

Inclusion 2: Rebel fine sandy loam, moist, 4 to 8 percent slopes--3 percent

Inclusion 3: Bliss fine sandy loam, dry, 4 to 15 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts

Shabliss--Landform: Fan remnants; geomorphic position: summit

Connel--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Inclusion 1--Landform: Fan remnants; geomorphic position: backslope; position on slope: upper

Inclusion 2--Landform: Inset fans

Inclusion 3--Landform: Fan remnants; geomorphic position: backslope; position on slope: lower

Major Component Description

Shabliss Series

Elevation: 4,400 to 5,200 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Connel Series

Elevation: 4,400 to 5,200 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Shabliss: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush

Connel: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush

Inclusion 2: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush

Inclusion 3: Wyoming big sagebrush, bluegrass, spiny hopsage

Ecological Site

Shabliss: 024XY005NV

Connel: 024XY020NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY005NV

Inclusion 3: 024XY020NV

534--Shabliss-Puett association

Composition

Major Components

Shabliss very fine sandy loam, 2 to 8 percent slopes--60 percent

Puett very gravelly loam, 15 to 50 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Orovada silt loam, moist, 0 to 2 percent slopes--7 percent

Inclusion 2: Valmy fine sandy loam, 2 to 8 percent slopes--6 percent

Inclusion 3: Kelk very fine sandy loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Shabliss--Landform: Fan remnants; geomorphic position: summit

Puett--Landform: Fan remnants; geomorphic position: backslope

Inclusion 1--Landform: Drainageways; position on slope: upper

Inclusion 2--Landform: Fan remnants; geomorphic position: backslope; position on slope: lower

Inclusion 3--Landform: Inset fans; position on slope: lower

Major Component Description

Shabliss Series

Elevation: 4,800 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Puett Series

Elevation: 4,800 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from tuffaceous rocks

Dominant Present Vegetation

Shabliss: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Puett: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, shadscale

Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Shabliss: 024XY005NV

Puett: 024XY045NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY022NV

Inclusion 3: 024XY005NV

536--Shabliss-Enko-Dugchip association

Composition

Major Components

Shabliss very fine sandy loam, 2 to 4 percent slopes--40 percent

Enko very fine sandy loam, moist, 2 to 4 percent slopes--30 percent

Dugchip very fine sandy loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Bliss fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 2: McConnel gravelly fine sandy loam, 2 to 4 percent slopes, rarely flooded--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Shabliss--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Enko--Landform: Fan skirts; position on slope: lower

Dugchip--Landform: Fan remnants; geomorphic position: backslope; position on slope: upper

Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper; aspect: north

Inclusion 2--Landform: Inset fans

Major Component Description

Shabliss Series

Elevation: 4,600 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Enko Series

Elevation: 4,600 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dugchip Series

Elevation: 4,600 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Shabliss: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Enko: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Dugchip: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Shabliss: 024XY005NV

Enko: 024XY005NV

Dugchip: 024XY005NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY005NV

537--Shabliss-Bliss-Genaw association

Composition

Major Components

Shabliss very fine sandy loam, dry, 4 to 15 percent slopes--45 percent

Bliss very fine sandy loam, cool, 15 to 30 percent slopes--25 percent

Genaw gravelly loam, 15 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Enko loamy fine sand, 2 to 8 percent slopes--7 percent

Inclusion 2: Weso very fine sandy loam, 2 to 4 percent slopes--4 percent

Inclusion 3: Rock outcrop--2 percent

Inclusion 4: Rio King loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Shabliss--Landform: Fan remnants; geomorphic position: summit

Bliss--Landform: Fan remnants; geomorphic position: backslope; aspect: north

Genaw--Landform: Pediments; geomorphic position: backslope; aspect: south

Inclusion 1--Landform: Inset fans

Inclusion 2--Landform: Inset fans; geomorphic position: summit; position on slope: lower

Inclusion 3--Landform: Pediments

Inclusion 4--Landform: Drainageways

Major Component Description**Shabliss Series**

Elevation: 4,900 to 5,400 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Bliss Series

Elevation: 4,900 to 5,400 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Genaw Series

Elevation: 4,900 to 5,400 feet

Precipitation: About 9 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from tuffaceous rocks

Dominant Present Vegetation

Shabliss: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Bliss: Indian ricegrass, basin wildrye, big sagebrush, needleandthread, spiny hopsage

Genaw: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, shadscale, spiny hopsage

Inclusion 1: Indian ricegrass, big sagebrush, bottlebrush squirreltail, needleandthread, spiny hopsage

Inclusion 2: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: None

Inclusion 4: Basin big sagebrush, basin wildrye, rabbitbrush

Ecological Site

Shabliss: 024XY020NV

Bliss: 024XY058NV

Genaw: 024XY020NV

Inclusion 1: 024XY017NV

Inclusion 2: 024XY002NV

Inclusion 3: none

Inclusion 4: 025XY003NV

543--Pumper-Connel association**Composition****Major Components**

Pumper very fine sandy loam, 0 to 4 percent slopes--60 percent

Connel very fine sandy loam, dry, 0 to 4 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: McConnel very gravelly sandy loam, 2 to 4 percent slopes, rarely flooded--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Pumper--Landform: Longshore bars (relict)

Connel--Landform: Lagoons

Inclusion 1--Landform: Drainageways

Major Component Description**Pumper Series**

Elevation: 4,100 to 4,400 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Connel Series

Elevation: 4,100 to 4,400 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Pumper: Indian ricegrass, bottlebrush squirreltail, bud sagebrush, shadscale, spiny hopsage
 Connel: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, shadscale, spiny hopsage
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Pumper: 024XY002NV
 Connel: 024XY020NV
 Inclusion 1: 024XY020NV

544--Pumper-Weso association

Composition

Major Components
 Pumper stony fine sandy loam, 2 to 8 percent slopes--65 percent
 Weso very fine sandy loam, 0 to 4 percent slopes--20 percent

Contrasting Inclusions
 Inclusion 1: McConnell very gravelly very fine sandy loam, 2 to 8 percent slopes--6 percent
 Inclusion 2: Pumper stony fine sandy loam, slightly saline, 2 to 8 percent slopes--4 percent
 Inclusion 3: Golconda very stony very fine sandy loam, 2 to 8 percent slopes--3 percent
 Inclusion 4: Hawsley loamy sand, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Pumper--Landform: Beach terraces
 Weso--Landform: Fan skirts
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Beach terraces; position on slope: lower
 Inclusion 3--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Inclusion 4--Landform: Sand sheets

Major Component Description

Pumper Series
Elevation: 4,200 to 4,700 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days

Surface rock fragments: 1 percent stones and boulders; 10 percent cobbles; 10 percent gravel
Surface layer texture: Stony fine sandy loam
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Weso Series

Elevation: 4,200 to 4,700 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Pumper: Bottlebrush squirreltail, bud sagebrush, shadscale
 Weso: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, shadscale
 Inclusion 2: Indian ricegrass, black greasewood, bud sagebrush, shadscale
 Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 4: Indian ricegrass, fourwing saltbush, needleandthread, spiny hopsage

Ecological Site

Pumper: 024XY002NV
 Weso: 024XY002NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY003NV
 Inclusion 3: 024XY002NV
 Inclusion 4: 024XY055NV

545--Pumper-Dun Glen-Davey association

Composition

Major Components
 Pumper sandy loam, 2 to 8 percent slopes--35 percent
 Dun Glen very fine sandy loam, 0 to 2 percent slopes--35 percent
 Davey loamy fine sand, 2 to 4 percent slopes--15 percent

Contrasting Inclusions
 Inclusion 1: Wholan silt loam, 2 to 4 percent slopes--5 percent

Inclusion 2: Weso very fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 3: Goldrun fine sand, 2 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Pumper--Landform: Beach terraces
 Dun Glen--Landform: Fan skirts
 Davey--Landform: Sand sheets
 Inclusion 1--Landform: Inset fans; position on slope: lower
 Inclusion 2--Landform: Fan remnants
 Inclusion 3--Landform: Dunes

Major Component Description

Pumper Series

Elevation: 4,150 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Sandy loam
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dun Glen Series

Elevation: 4,150 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Davey Series

Elevation: 4,150 to 4,300 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Pumper: Indian ricegrass, bottlebrush squirreltail, bud sagebrush, shadscale, spiny hopsage
 Dun Glen: Bottlebrush squirreltail, bud sagebrush, shadscale
 Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread

Inclusion 1: Indian ricegrass, bottlebrush squirreltail, winterfat
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 3: Indian ricegrass, basin big sagebrush, hairy horsebrush

Ecological Site

Pumper: 024XY002NV
 Dun Glen: 024XY002NV
 Davey: 024XY017NV
 Inclusion 1: 024XY004NV
 Inclusion 2: 024XY002NV
 Inclusion 3: 024XY001NV

551--Ninemile-Carstump association

Composition

Major Components

Ninemile very gravelly loam, 8 to 15 percent slopes--45 percent
 Carstump gravelly loam, 4 to 15 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Madeline stony loam, 4 to 15 percent slopes--3 percent
 Inclusion 2: Alyan loam, 4 to 15 percent slopes--7 percent
 Inclusion 3: Rock outcrop--5 percent

Map Unit Setting

Landscape position: Plateaus
 Ninemile--Landform: Plateaus; geomorphic position: summit; aspect: north
 Carstump--Landform: Plateaus; geomorphic position: summit; aspect: south
 Inclusion 1--Landform: Plateaus; position on slope: upper; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Plateaus; geomorphic position: backslope; position on slope: lower; aspect: south
 Inclusion 3--Landform: Plateaus

Major Component Description

Ninemile Series

Elevation: 5,700 to 6,600 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface rock fragments: 40 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Carstump Series

Elevation: 5,700 to 6,600 feet

Precipitation: About 10 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, Sandberg bluegrass, low sagebrush

Carstump: Basin wildrye, big sagebrush, bluebunch wheatgrass

Inclusion 1: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 2: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 3: None

Ecological Site

Ninemile: 025XY017NV

Carstump: 025XY014NV

Inclusion 1: 025XY012NV

Inclusion 2: 025XY014NV

Inclusion 3: none

552--Ninemile-Vanwyper association

Composition

Major Components

Ninemile gravelly loam, 4 to 15 percent slopes--35 percent

Vanwyper very cobbly loam, 30 to 50 percent slopes--25 percent

Ninemile gravelly loam, 15 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Soughe cobbly loam, 30 to 50 percent slopes--5 percent

Inclusion 2: Sumine very cobbly loam, 30 to 50 percent slopes--5 percent

Inclusion 3: Clementine silt loam, drained, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Plateaus

Ninemile--Landform: Plateaus; geomorphic position: summit

Vanwyper--Landform: Plateaus; geomorphic position: backslope; aspect: south

Ninemile--Landform: Plateaus; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Plateaus; geomorphic position: backslope; position on slope: lower; aspect: north

Inclusion 2--Landform: Plateaus; geomorphic position: backslope; position on slope: upper; aspect: south

Inclusion 3--Landform: Stream terraces

Major Component Description

Ninemile Series

Elevation: 5,700 to 6,600 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface rock fragments: 25 percent gravel

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Vanwyper Series

Elevation: 5,700 to 6,600 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface rock fragments: 2 percent stones and boulders; 25 percent cobbles; 20 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Ninemile Series

Elevation: 5,700 to 6,600 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush

Vanwyper: Big sagebrush, bluebunch wheatgrass

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush

Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 2: Basin wildrye, bluebunch wheatgrass,
mountain big sagebrush
Inclusion 3: Basin wildrye

Ecological Site

Ninemile: 025XY017NV
Vanwyper: 025XY015NV
Ninemile: 025XY017NV
Inclusion 1: 025XY019NV
Inclusion 2: 025XY009NV
Inclusion 3: 025XY003NV

553--Ninemile-Tusk association

Composition

Major Components

Ninemile gravelly loam, 30 to 50 percent slopes--35 percent
Tusk gravelly loam, 15 to 50 percent slopes--25 percent
Ninemile gravelly loam, 4 to 15 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Harcany very stony loam, cold, 30 to 50 percent slopes--5 percent
Inclusion 2: Vanwyper gravelly very fine sandy loam, 15 to 50 percent slopes--5 percent
Inclusion 3: Rock outcrop--3 percent
Inclusion 4: Rose Creek fine sandy loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Ninemile--Landform: Mountains; geomorphic position: backslope; shape of slope: convex
Tusk--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Ninemile--Landform: Mountains; geomorphic position: summit

Inclusion 1--Landform: Mountains; position on slope: upper; shape of slope: concave

Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; shape of slope: concave

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Drainageways

Major Component Description

Ninemile Series

Elevation: 5,900 to 6,900 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Tusk Series

Elevation: 5,900 to 6,900 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 70 days

Surface rock fragments: 5 percent cobbles; 20 percent gravel

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Ninemile Series

Elevation: 5,900 to 6,900 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface rock fragments: 25 percent gravel

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush

Tusk: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush

Inclusion 1: Letterman needlegrass, tailcup lupine

Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 3: None

Inclusion 4: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Ninemile: 025XY017NV

Tusk: 025XY012NV

Ninemile: 025XY017NV

Inclusion 1: 025XY028NV

Inclusion 2: 025XY019NV

Inclusion 3: none

Inclusion 4: 025XY003NV

555--Ninemile-Tusel-Alyan association**Composition****Major Components**

Ninemile very gravelly loam, 15 to 50 percent slopes--50 percent
 Tusel gravelly loam, dry, 8 to 30 percent slopes--20 percent
 Alyan very gravelly loam, 15 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Sumine very gravelly loam, 30 to 50 percent slopes--6 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Bregar extremely cobbly loam, 8 to 30 percent slopes--2 percent
 Inclusion 4: Aridic Haploxerolls, loamy-skeletal, mixed, frigid loam, 4 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus and mountains
 Ninemile--Landform: Mountains; geomorphic position: summit; shape of slope: convex
 Tusel--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Alyan--Landform: Mountains; geomorphic position: backslope; shape of slope: concave
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: south
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Mountains; geomorphic position: summit
 Inclusion 4--Landform: Drainageways

Major Component Description**Ninemile Series**

Elevation: 6,400 to 7,200 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface rock fragments: 5 percent cobbles; 40 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Tusel Series

Elevation: 6,400 to 7,200 feet
Precipitation: About 16 inches

Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Alyan Series

Elevation: 6,400 to 7,200 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface rock fragments: 35 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, low sagebrush
 Tusel: Columbia needlegrass, big sagebrush, mountain brome, snowberry
 Alyan: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 1: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 2: None
 Inclusion 3: Idaho fescue, bluegrass, low sagebrush
 Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Ninemile: 023XY017NV
 Tusel: 025XY004NV
 Alyan: 025XY012NV
 Inclusion 1: 025XY009NV
 Inclusion 2: none
 Inclusion 3: 025XY024NV
 Inclusion 4: 025XY003NV

557--Ninemile very stony loam, 4 to 15 percent slopes**Composition****Major Components**

Ninemile very stony loam, 4 to 15 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Anawalt very stony loam, 4 to 15 percent slopes--7 percent
 Inclusion 2: Menbo very gravelly loam, 15 to 30 percent slopes--6 percent
 Inclusion 3: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Plateaus

Ninemile--Landform: Plateaus; geomorphic position: summit

Inclusion 1--Landform: Plateaus; geomorphic position: backslope; aspect: south

Inclusion 2--Landform: Plateaus; geomorphic position: backslope; aspect: north

Inclusion 3--Landform: Plateaus

Major Component Description**Ninemile Series**

Elevation: 5,800 to 6,500 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush

Inclusion 1: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 2: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 3: None

Ecological Site

Ninemile: 023XY017NV

Inclusion 1: 023XY031NV

Inclusion 2: 023XY007NV

Inclusion 3: none

558--Ninemile-Anawalt-Vanwyper association**Composition****Major Components**

Ninemile very gravelly loam, 15 to 50 percent slopes--35 percent

Anawalt very gravelly loam, 15 to 50 percent slopes--30 percent

Vanwyper very cobbly loam, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Tusk stony loam, 15 to 50 percent slopes--7 percent

Inclusion 2: Bregar very stony loam, 4 to 15 percent slopes--4 percent

Inclusion 3: Rock outcrop--3 percent

Inclusion 4: Fluvaquentic Endoaquolls, fine-loamy, mixed, frigid stony loam, 4 to 15 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Ninemile--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Anawalt--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: south

Vanwyper--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south

Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: summit

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Drainageways

Major Component Description**Ninemile Series**

Elevation: 5,800 to 6,900 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface rock fragments: 40 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Anawalt Series

Elevation: 5,800 to 6,900 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Vanwyper Series

Elevation: 5,800 to 6,900 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, low sagebrush
 Anawalt: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Vanwyper: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 1: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 2: Bluegrass, low sagebrush
 Inclusion 3: None
 Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Ninemile: 025XY017NV
 Anawalt: 025XY018NV
 Vanwyper: 025XY015NV
 Inclusion 1: 025XY012NV
 Inclusion 2: 024XY016NV
 Inclusion 3: none
 Inclusion 4: 025XY003NV

559--Ninemile-Devada-Rock outcrop association***Composition***

Major Components
 Ninemile gravelly loam, 4 to 15 percent slopes--40 percent
 Devada gravelly loam, 4 to 15 percent slopes--35 percent
 Rock outcrop--15 percent
Contrasting Inclusions
 Inclusion 1: Aridic Argixerolls, fine-loamy, mixed, frigid gravelly loam, 2 to 8 percent slopes--5 percent
 Inclusion 2: Fluvaquentic Endoaquolls, fine-loamy, mixed, frigid loam, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Plateaus
 Ninemile--Landform: Plateaus; geomorphic position: summit; aspect: north
 Devada--Landform: Plateaus; geomorphic position: summit; aspect: south
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Plateaus; geomorphic position: toeslope; shape of slope: concave
 Inclusion 2--Landform: Stream terraces

Major Component Description

Ninemile Series
Elevation: 5,700 to 6,400 feet

Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Devada Series

Elevation: 5,700 to 6,400 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 5,700 to 6,400 feet

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Devada: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Rock outcrop: None
 Inclusion 1: Basin wildrye, big sagebrush, bluebunch wheatgrass
 Inclusion 2: Nevada bluegrass, sedge, tufted hairgrass

Ecological Site

Ninemile: 025XY017NV
 Devada: 025XY018NV
 Rock outcrop: None
 Inclusion 1: 025XY014NV
 Inclusion 2: 025XY005NV

561--Sonoma silt loam, strongly saline***Composition***

Major Components
 Sonoma silt loam, strongly saline, 0 to 2 percent slopes--85 percent
Contrasting Inclusions
 Inclusion 1: Humboldt silty clay loam, 0 to 2 percent slopes, frequently flooded--10 percent
 Inclusion 2: Rose Creek fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Sonoma--Landform: Stream terraces
 Inclusion 1--Landform: Flood plains
 Inclusion 2--Landform: Levees (stream)

Major Component Description

Sonoma Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Sonoma: Alkali sacaton, basin wildrye, black greasewood, inland saltgrass
 Inclusion 1: Basin wildrye, creeping wildrye, rush
 Inclusion 2: Basin wildrye, creeping wildrye, sedge, willow

Ecological Site

Sonoma: 024XY007NV
 Inclusion 1: 025XY001NV
 Inclusion 2: 025XY001NV

562--Sonoma silty clay loam, occasionally flooded

Composition

Major Components

Sonoma silty clay loam, 0 to 2 percent slopes, occasionally flooded--90 percent

Contrasting Inclusions

Inclusion 1: Humboldt silty clay, 0 to 2 percent slopes, frequently flooded--5 percent
 Inclusion 2: Rose Creek loam, 0 to 2 percent slopes, occasionally flooded--3 percent
 Inclusion 3: Sonoma silt loam, strongly saline, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Sonoma--Landform: Flood plains
 Inclusion 1--Landform: Sloughs; position on slope: lower
 Inclusion 2--Landform: Levees (stream)
 Inclusion 3--Landform: Stream terraces

Major Component Description

Sonoma Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silty clay loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Sonoma: Basin wildrye, creeping wildrye, rush
 Inclusion 1: Basin wildrye, creeping wildrye, rush, sedge
 Inclusion 2: Creeping wildrye, sedge, willow
 Inclusion 3: Alkali sacaton, black greasewood, inland saltgrass

Ecological Site

Sonoma: 025XY001NV
 Inclusion 1: 025XY001NV
 Inclusion 2: 025XY001NV
 Inclusion 3: 024XY007NV

563--Sonoma silty clay loam, strongly saline

Composition

Major Components

Sonoma silty clay loam, strongly saline, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Parant silty clay loam, 0 to 2 percent slopes, frequently flooded--5 percent
 Inclusion 2: Prideen silt loam, 0 to 2 percent slopes, rarely flooded--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Sonoma--Landform: Stream terraces
 Inclusion 1--Landform: Flood plains
 Inclusion 2--Landform: Stream terraces; position on slope: upper

Major Component Description

Sonoma Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees

Frost-free season: About 110 days
Surface layer texture: Silty clay loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Sonoma: Alkali bluegrass, alkali sacaton, inland saltgrass
 Inclusion 1: Basin wildrye, creeping wildrye, rush
 Inclusion 2: Iodinebush, seepweed, sickle saltbush

Ecological Site

Sonoma: 024XY009NV
 Inclusion 1: 025XY001NV
 Inclusion 2: 024XY010NV

564--Sonoma silt loam, drained

Composition

Major Components
 Sonoma silt loam, drained, 0 to 2 percent slopes--95 percent

Contrasting Inclusions
 Inclusion 1: Prideen silt loam, strongly saline, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Sonoma--Landform: Stream terraces
 Inclusion 1--Landform: Stream terraces; position on slope: upper

Major Component Description

Sonoma Series
Elevation: 4,400 to 4,900 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Sonoma: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 1: Black greasewood, inland saltgrass

Ecological Site

Sonoma: 024XY006NV
 Inclusion 1: 024XY011NV

566--Sonoma-Paranat complex

Composition

Major Components
 Sonoma silt loam, strongly saline, 0 to 2 percent slopes--45 percent
 Paranat silt loam, sodic, 0 to 2 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Clementine silty clay loam, slightly saline, 0 to 2 percent slopes--5 percent
 Inclusion 2: Paranat silt loam, moderately wet, 0 to 2 percent slopes--5 percent
 Inclusion 3: Wendane silt loam, 0 to 2 percent slopes--3 percent
 Inclusion 4: Sonoma silt loam, strongly sodic, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Sonoma--Landform: Stream terraces
 Paranat--Landform: Stream terraces
 Inclusion 1--Landform: Flood plains
 Inclusion 2--Landform: Sloughs
 Inclusion 3--Landform: Alluvial flats; position on slope: upper
 Inclusion 4--Landform: Alluvial flats; position on slope: upper; shape of slope: concave

Major Component Description

Sonoma Series
Elevation: 4,200 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Paranat Series

Elevation: 4,200 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Sonoma: Alkali sacaton, black greasewood, inland saltgrass

Paranat: Black greasewood, inland saltgrass, silver buffaloberry
 Inclusion 1: Basin wildrye, creeping wildrye, rush
 Inclusion 2: Basin wildrye, silver buffaloberry
 Inclusion 3: Black greasewood, seepweed
 Inclusion 4: Inland saltgrass, iodinebush, seepweed

Ecological Site

Sonoma: 024XY007NV
 Paranat: 024XY064NV
 Inclusion 1: 025XY001NV
 Inclusion 2: 024XY063NV
 Inclusion 3: 024XY011NV
 Inclusion 4: 024XY010NV

567--Sonoma silty clay loam, frequently flooded

Composition

Major Components

Sonoma silty clay loam, 0 to 2 percent slopes, frequently flooded--90 percent

Contrasting Inclusions

Inclusion 1: Humboldt silty clay, 0 to 2 percent slopes, frequently flooded--5 percent
 Inclusion 2: Rose Creek loam, 0 to 2 percent slopes, occasionally flooded--3 percent
 Inclusion 3: Sonoma silt loam, strongly saline, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Sonoma--Landform: Flood plains
 Inclusion 1--Landform: Sloughs; position on slope: lower
 Inclusion 2--Landform: Levees (stream)
 Inclusion 3--Landform: Stream terraces; position on slope: upper

Major Component Description

Sonoma Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silty clay loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Sonoma: Basin wildrye, creeping wildrye, rush
 Inclusion 1: Basin wildrye, creeping wildrye, rush, sedge
 Inclusion 2: Creeping wildrye, sedge, willow
 Inclusion 3: Black greasewood, inland saltgrass

Ecological Site

Sonoma: 025XY001NV
 Inclusion 1: 025XY001NV
 Inclusion 2: 025XY001NV
 Inclusion 3: 024XY007NV

573--Spinlin-Harcany-Hackwood association

Composition

Major Components

Spinlin very cobbly loam, 30 to 50 percent slopes--40 percent
 Harcany very cobbly silt loam, 30 to 50 percent slopes--30 percent
 Hackwood silt loam, 15 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Aridic Haploxerolls, fine-loamy, mixed, frigid stony loam, 2 to 8 percent slopes--4 percent
 Inclusion 2: Lithic Cryoborolls, loamy-skeletal, mixed very cobbly loam, 30 to 50 percent slopes--1 percent
 Inclusion 3: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, 0 to 2 percent slopes--2 percent
 Inclusion 4: Rock outcrop--3 percent

Map Unit Setting

Landscape position: Mountains
 Spinlin--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: south
 Harcany--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north
 Hackwood--Landform: Mountains; geomorphic position: backslope; shape of slope: concave
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Mountains; geomorphic position: backslope
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Mountains

Major Component Description**Spinlin Series**

Elevation: 7,000 to 9,000 feet

Precipitation: About 13 inches

Air temperature: About 38 degrees

Frost-free season: About 50 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Harcany Series

Elevation: 7,000 to 9,000 feet

Precipitation: About 15 inches

Air temperature: About 40 degrees

Frost-free season: About 50 days

Surface layer texture: Very cobbly silt loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from mixed rocks

Hackwood Series

Elevation: 7,000 to 9,000 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium and colluvium derived from volcanic rocks

Dominant Present Vegetation

Spinlin: Idaho fescue, low sagebrush

Harcany: Idaho fescue, mountain big sagebrush, mountain brome, serviceberry

Hackwood: Bluegrass, mountain brome, quaking aspen

Inclusion 1: Basin big sagebrush, basin wildrye

Inclusion 2: Bluebunch wheatgrass, mountain brome, oceanspray, snowberry

Inclusion 3: Nevada bluegrass, rose, sedge, tufted hairgrass

Inclusion 4: None

Ecological Site

Spinlin: 024XY027NV

Harcany: 024XY032NV

Hackwood: 025XY065NV

Inclusion 1: 025XY003NV

Inclusion 2: 024XY034NV

Inclusion 3: 025XY005NV

Inclusion 4: none

574--Spinlin-Hackwood-Tusel association**Composition****Major Components**

Spinlin very cobbly loam, 8 to 30 percent slopes--40 percent

Hackwood silt loam, 15 to 50 percent slopes--30 percent

Tusel gravelly loam, dry, 15 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Udelope bouldery sandy loam, 8 to 30 percent slopes--7 percent

Inclusion 2: Croesus cobbly loam, 8 to 15 percent slopes--4 percent

Inclusion 3: Rock outcrop--2 percent

Inclusion 4: Pachic Cryoborolls, coarse-loamy, mixed loam, 30 to 75 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Spinlin--Landform: Mountains; shape of slope: convex

Hackwood--Landform: Mountains; shape of slope: concave; aspect: north

Tusel--Landform: Mountains; shape of slope: concave

Inclusion 1--Landform: Mountains; geomorphic position: summit

Inclusion 2--Landform: Mountains; geomorphic position: summit; shape of slope: plane

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Mountains; position on slope: upper

Major Component Description**Spinlin Series**

Elevation: 7,600 to 8,300 feet

Precipitation: About 13 inches

Air temperature: About 38 degrees

Frost-free season: About 50 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Hackwood Series

Elevation: 7,600 to 8,300 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Silt loam

Drainage class: Well drained
Dominant parent material: Alluvium and colluvium
 derived from volcanic rocks

Tusel Series

Elevation: 7,600 to 8,300 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from mixed rocks

Dominant Present Vegetation

Spinlin: Idaho fescue, bluebunch wheatgrass,
 bluegrass, low sagebrush
 Hackwood: Mountain brome, quaking aspen, slender
 wheatgrass, snowberry
 Tusel: Columbia needlegrass, mountain big
 sagebrush, mountain brome, snowberry
 Inclusion 1: Columbia needlegrass, basin wildrye,
 curleaf mountainmahogany, mountain brome
 Inclusion 2: Idaho fescue, mountain big sagebrush,
 mountain brome, spike fescue
 Inclusion 3: None
 Inclusion 4: Letterman needlegrass, limber pine,
 mountain snowberry

Ecological Site

Spinlin: 025XY017NV
 Hackwood: 025XY065NV
 Tusel: 025XY004NV
 Inclusion 1: 025XY075NV
 Inclusion 2: 025XY076NV
 Inclusion 3: none
 Inclusion 4: 025XY073NV

580--Sumine-Ninemile-Softscrabble association

Composition

Major Components

Sumine cobbly loam, 15 to 50 percent slopes--35
 percent
 Ninemile cobbly loam, 8 to 30 percent slopes--30
 percent
 Softscrabble gravelly loam, 8 to 30 percent slopes--
 20 percent

Contrasting Inclusions

Inclusion 1: Bregar very cobbly loam, 15 to 50
 percent slopes--5 percent

Inclusion 2: Udelope stony loam, warm, 8 to 30
 percent slopes--4 percent
 Inclusion 3: Hackwood silt loam, 8 to 30 percent
 slopes--4 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains
 Sumine--Landform: Mountains; geomorphic position:
 backslope; shape of slope: plane; aspect: south
 Ninemile--Landform: Mountains; geomorphic
 position: backslope; shape of slope: convex
 Softscrabble--Landform: Mountains; geomorphic
 position: backslope; shape of slope: plane;
 aspect: north
 Inclusion 1--Landform: Mountains; shape of slope:
 convex; aspect: south
 Inclusion 2--Landform: Mountains; geomorphic
 position: backslope; shape of slope: convex;
 aspect: south
 Inclusion 3--Landform: Mountains; geomorphic
 position: backslope; shape of slope: concave;
 aspect: north
 Inclusion 4--Landform: Mountains

Major Component Description

Sumine Series

Elevation: 6,100 to 7,000 feet
Precipitation: About 12 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from mixed rocks

Ninemile Series

Elevation: 6,100 to 7,000 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from volcanic rocks

Softscrabble Series

Elevation: 6,100 to 7,000 feet
Precipitation: About 14 inches
Air temperature: About 42 degrees
Frost-free season: About 60 days
Surface layer texture: Gravelly loam
Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Sumine: Antelope bitterbrush, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Softscrabble: Idaho fescue, antelope bitterbrush, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 1: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 2: Idaho fescue, bluebunch wheatgrass, curlleaf mountainmahogany, mountain big sagebrush, needlegrass
 Inclusion 3: Big sagebrush, mountain brome, quaking aspen
 Inclusion 4: None

Ecological Site

Sumine: 025XY009NV
 Ninemile: 025XY017NV
 Softscrabble: 025XY012NV
 Inclusion 1: 025XY024NV
 Inclusion 2: 025XY071NV
 Inclusion 3: 025XY065NV
 Inclusion 4: none

581--Sumine-Gosumi-Nomara association

Composition

Major Components

Sumine very cobbly loam, 30 to 50 percent slopes--40 percent
 Gosumi stony loam, 30 to 50 percent slopes--25 percent
 Nomara stony silt loam, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Bregar extremely gravelly loam, 4 to 30 percent slopes--7 percent
 Inclusion 2: Rock outcrop--4 percent
 Inclusion 3: Xeric Torriorthents, clayey-skeletal, montmorillonitic, nonacid, frigid very gravelly clay loam, 30 to 50 percent slopes--3 percent
 Inclusion 4: Fluventic Haploxerolls, fine-loamy, mixed, frigid stony loam, 0 to 4 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Sumine--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south

Gosumi--Landform: Mountains; geomorphic position: backslope; shape of slope: convex

Nomara--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: summit

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Mountains; geomorphic position: backslope

Inclusion 4--Landform: Drainageways

Major Component Description

Sumine Series

Elevation: 5,500 to 7,000 feet

Precipitation: About 12 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Gosumi Series

Elevation: 5,500 to 7,000 feet

Precipitation: About 12 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Nomara Series

Elevation: 5,500 to 7,000 feet

Precipitation: About 12 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Stony silt loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Sumine: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Gosumi: Idaho fescue, bluebunch wheatgrass, low sagebrush

Nomara: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 1: Bluegrass, bottlebrush squirreltail, low sagebrush
 Inclusion 2: None
 Inclusion 3: Utah juniper, black sagebrush, bluegrass
 Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Sumine: 024XY029NV
 Gosumi: 024XY027NV
 Nomara: 024XY021NV
 Inclusion 1: 024XY016NV
 Inclusion 2: none
 Inclusion 3: 025XY060NV
 Inclusion 4: 025XY003NV

582--Sumine-Ninemile-Anawalt association

Composition

Major Components

Sumine very gravelly loam, 15 to 50 percent slopes--35 percent
 Ninemile very gravelly loam, 15 to 50 percent slopes--25 percent
 Anawalt very gravelly loam, 8 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--5 percent
 Inclusion 2: Tusk gravelly loam, 15 to 50 percent slopes--5 percent
 Inclusion 3: Erakatak very cobbly loam, 15 to 50 percent slopes--4 percent
 Inclusion 4: Fluvaquentic Haploxerolls, loamy-skeletal, mixed, frigid very gravelly loam, 8 to 15 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Sumine--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south

Ninemile--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Anawalt--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: south

Inclusion 1--Landform: Mountains

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: south

Inclusion 4--Landform: Drainageways

Major Component Description

Sumine Series

Elevation: 6,800 to 7,800 feet
Precipitation: About 12 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Ninemile Series

Elevation: 6,800 to 7,800 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Anawalt Series

Elevation: 6,800 to 7,800 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 2 percent cobbles; 40 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Sumine: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Ninemile: Idaho fescue, bluegrass, low sagebrush

Anawalt: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 1: None

Inclusion 2: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 3: Basin wildrye, mountain big sagebrush, mountain brome

Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Sumine: 024XY029NV
 Ninemile: 025XY017NV
 Anawalt: 025XY018NV
 Inclusion 1: none
 Inclusion 2: 025XY012NV

Inclusion 3: 025XY016NV
 Inclusion 4: 025XY003NV

583--Sumine-Gosumi-Harcany association

Composition

Major Components

Sumine very cobbly loam, 30 to 50 percent slopes--
 35 percent
 Gosumi very cobbly loam, 15 to 50 percent slopes--
 30 percent
 Harcany gravelly silt loam, 30 to 50 percent slopes--
 20 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--5 percent
 Inclusion 2: Gowjai gravelly loam, 8 to 30 percent
 slopes--4 percent
 Inclusion 3: Hackwood silt loam, 30 to 50 percent
 slopes--4 percent
 Inclusion 4: Linrose very gravelly loam, dry, 4 to 15
 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Sumine--Landform: Mountains; geomorphic position:
 backslope; shape of slope: concave; aspect:
 south

Gosumi--Landform: Mountains; geomorphic position:
 backslope; shape of slope: convex

Harcany--Landform: Mountains; geomorphic
 position: backslope; shape of slope: concave;
 aspect: north

Inclusion 1--Landform: Mountains

Inclusion 2--Landform: Mountains; geomorphic
 position: footslope; position on slope: lower

Inclusion 3--Landform: Mountains; geomorphic
 position: backslope; shape of slope: concave

Inclusion 4--Landform: Mountains; geomorphic
 position: summit

Major Component Description

Sumine Series

Elevation: 6,800 to 8,500 feet

Precipitation: About 12 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium
 derived from mixed rocks

Gosumi Series

Elevation: 6,800 to 8,500 feet

Precipitation: About 12 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium
 derived from mixed rocks

Harcany Series

Elevation: 6,800 to 8,500 feet

Precipitation: About 15 inches

Air temperature: About 40 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly silt loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from
 mixed rocks

Dominant Present Vegetation

Sumine: Basin wildrye, bluebunch wheatgrass,
 mountain big sagebrush

Gosumi: Idaho fescue, bluebunch wheatgrass,
 bluegrass, low sagebrush

Harcany: Idaho fescue, mountain big sagebrush,
 mountain brome, snowberry

Inclusion 1: None

Inclusion 2: Basin wildrye, big sagebrush, bluebunch
 wheatgrass

Inclusion 3: Big sagebrush, mountain brome,
 quaking aspen

Inclusion 4: Idaho fescue, bluegrass, low sagebrush

Ecological Site

Sumine: 024XY029NV

Gosumi: 024XY027NV

Harcany: 024XY032NV

Inclusion 1: none

Inclusion 2: 025XY014NV

Inclusion 3: 025XY065NV

Inclusion 4: 024XY016NV

584--Sumine-Ninemile-Tusel association

Composition

Major Components

Sumine cobbly loam, 15 to 50 percent slopes--45
 percent
 Ninemile cobbly loam, 15 to 50 percent slopes--25
 percent
 Tusel gravelly loam, dry, 15 to 50 percent slopes--
 20 percent

Contrasting Inclusions

- Inclusion 1: Cleavage very cobbly loam, 4 to 15 percent slopes--4 percent
 Inclusion 2: Rock outcrop--3 percent
 Inclusion 3: Hackwood silt loam, 8 to 30 percent slopes--2 percent
 Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, drained, 2 to 8 percent slopes--1 percent

Map Unit Setting

- Landscape position:* Mountains
 Sumine--Landform: Mountains; shape of slope: plane; aspect: south
 Ninemile--Landform: Mountains; shape of slope: convex
 Tusel--Landform: Mountains; shape of slope: concave; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: summit
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north
 Inclusion 4--Landform: Stream terraces

Major Component Description**Sumine Series**

- Elevation:* 6,000 to 7,400 feet
Precipitation: About 12 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Ninemile Series

- Elevation:* 6,000 to 7,400 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface rock fragments: 25 percent gravel
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Tusel Series

- Elevation:* 6,000 to 7,400 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

- Sumine: Idaho fescue, Letterman needlegrass, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Ninemile: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush
 Tusel: Idaho fescue, mountain big sagebrush, mountain brome, slender wheatgrass, snowberry
 Inclusion 1: Idaho fescue, low sagebrush
 Inclusion 2: None
 Inclusion 3: Groundsel, mountain brome, quaking aspen, slender wheatgrass, snowberry
 Inclusion 4: Nevada bluegrass, alpine timothy, basin wildrye, mat muhly, meadow barley, sedge

Ecological Site

- Sumine: 025XY009NV
 Ninemile: 025XY017NV
 Tusel: 025XY004NV
 Inclusion 1: 025XY024NV
 Inclusion 2: none
 Inclusion 3: 025XY002NV
 Inclusion 4: 025XY006NV

585--Sumine-Rock outcrop-Ninemile association**Composition****Major Components**

- Sumine very cobbly loam, 50 to 75 percent slopes--45 percent
 Rock outcrop--25 percent
 Ninemile very cobbly loam, moist, 8 to 30 percent slopes--20 percent
Contrasting Inclusions
 Inclusion 1: Gowjai silt loam, 15 to 50 percent slopes--5 percent
 Inclusion 2: Bregar very stony loam, 4 to 15 percent slopes--3 percent
 Inclusion 3: Kingsriver loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

- Landscape position:* Mountains
 Sumine--Landform: Mountains; geomorphic position:

backslope; aspect: south
 Rock outcrop--Landform: Mountains
 Ninemile--Landform: Mountains; geomorphic
 position: backslope; shape of slope: convex
 Inclusion 1--Landform: Mountains; geomorphic
 position: backslope; position on slope: lower;
 aspect: north
 Inclusion 2--Landform: Mountains; geomorphic
 position: summit
 Inclusion 3--Landform: Drainageways

Major Component Description

Sumine Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 12 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 5,000 to 6,000 feet

Ninemile Series

Elevation: 5,200 to 6,000 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from volcanic rocks

Dominant Present Vegetation

Sumine: Basin wildrye, bluebunch wheatgrass,
 mountain big sagebrush
 Rock outcrop: None
 Ninemile: Bluebunch wheatgrass, low sagebrush
 Inclusion 1: Big sagebrush, bluebunch wheatgrass
 Inclusion 2: Idaho fescue, bluegrass, low sagebrush
 Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Sumine: 024XY029NV
 Ninemile: 025XY022NV
 Rock outcrop: None
 Inclusion 1: 025XY014NV
 Inclusion 2: 024XY016NV
 Inclusion 3: 025XY003NV

586--Sumine-Rubble land-Reluctan association

Composition

Major Components

Sumine very cobbly loam, 50 to 75 percent slopes--
 35 percent
 Rubble land fragmental material, 15 to 75 percent
 slopes--30 percent
 Reluctan very stony loam, 30 to 50 percent slopes--
 20 percent

Contrasting Inclusions

Inclusion 1: Ninemile very gravelly loam, 8 to 30
 percent slopes--7 percent
 Inclusion 2: Harcan very cobbly loam, cool, 30 to
 50 percent slopes--5 percent
 Inclusion 3: Cumulic Endoaquolls, loamy-skeletal,
 mixed, frigid loam, cool, 0 to 4 percent slopes--2
 percent
 Inclusion 4: Cumulic Endoaquolls, fine,
 montmorillonitic, frigid clay loam, 2 to 8 percent
 slopes--1 percent

Map Unit Setting

Landscape position: Plateaus and mountains
 Sumine--Landform: Mountains; geomorphic position:
 backslope; aspect: south
 Rubble land--Landform: Mountains
 Reluctan--Landform: Mountains; geomorphic
 position: backslope; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic
 position: shoulder
 Inclusion 2--Landform: Mountains; geomorphic
 position: backslope; position on slope: upper;
 shape of slope: concave; aspect: north
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Flood plains

Major Component Description

Sumine Series

Elevation: 5,400 to 6,500 feet
Precipitation: About 12 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from mixed rocks

Rubble land Miscellaneous Area

Elevation: 5,400 to 6,500 feet
Surface layer texture: Fragmental material

Drainage class: Excessively drained

Reluctan Series

Elevation: 5,400 to 6,400 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent stones and boulders; 20 percent cobbles; 10 percent gravel

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Sumine: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Rubble land: None

Reluctan: Idaho fescue, lupine, mountain big sagebrush, serviceberry, wheatgrass

Inclusion 1: Idaho fescue, bluebunch wheatgrass, low sagebrush

Inclusion 2: Columbia needlegrass, basin wildrye, mountain big sagebrush, mountain brome, snowberry

Inclusion 3: Basin big sagebrush, basin wildrye, bluegrass, rose

Inclusion 4: Bluegrass, meadow barley, rush, sedge, tufted hairgrass

Ecological Site

Sumine: 023XY016NV

Reluctan: 023XY066NV

Rubble land: None

Inclusion 1: 023XY017NV

Inclusion 2: 023XY019NV

Inclusion 3: 025XY064NV

Inclusion 4: 023XY025NV

587--Sumine-Gosumi-Harcany association, cool

Composition

Major Components

Sumine very cobbly loam, 30 to 50 percent slopes--35 percent

Gosumi very cobbly loam, 15 to 30 percent slopes--30 percent

Harcany gravelly silt loam, moist, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Ninemile very cobbly loam, dry, 4 to 15

percent slopes--6 percent

Inclusion 2: Hackwood silt loam, 15 to 50 percent slopes--5 percent

Inclusion 3: Rock outcrop--3 percent

Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, frigid loam, 4 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Sumine--Landform: Mountains; geomorphic position: backslope; aspect: south

Gosumi--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Harcany--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: summit

Inclusion 2--Landform: Mountains; geomorphic position: backslope

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Stream terraces

Major Component Description

Sumine Series

Elevation: 6,400 to 7,100 feet

Precipitation: About 12 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Gosumi Series

Elevation: 6,400 to 7,000 feet

Precipitation: About 12 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Harcany Series

Elevation: 6,400 to 7,100 feet

Precipitation: About 15 inches

Air temperature: About 40 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly silt loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from mixed rocks

Dominant Present Vegetation

Sumine: Thurber needlegrass, basin wildrye, bluebunch wheatgrass, mountain big sagebrush, rabbitbrush

Gosumi: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush

Harcany: Idaho fescue, bluegrass, mountain big sagebrush, mountain brome, purple oniongrass, snowberry

Inclusion 1: Idaho fescue, Sandberg bluegrass, low sagebrush

Inclusion 2: Mountain big sagebrush, quaking aspen

Inclusion 3: None

Inclusion 4: Bluegrass, rush, sedge, tufted hairgrass

Ecological Site

Sumine: 023XY016NV

Gosumi: 023XY017NV

Harcany: 023XY065NV

Inclusion 1: 023XY008NV

Inclusion 2: 023XY028NV

Inclusion 3: none

Inclusion 4: 023XY025NV

588--Sumine-Cleavage-Rubble land association***Composition*****Major Components**

Sumine very stony loam, 30 to 75 percent slopes--45 percent

Cleavage very cobbly loam, 30 to 75 percent slopes--25 percent

Rubble land fragmental material, 30 to 75 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Cumulic Endoaquolls, coarse-loamy, mixed, frigid loam, drained, cool, 2 to 8 percent slopes--5 percent

Inclusion 2: Rock outcrop--4 percent

Inclusion 3: Softscrabble stony loam, 8 to 30 percent slopes--4 percent

Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, drained, 2 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus

Sumine--Landform: Plateaus; geomorphic position: backslope; aspect: south

Cleavage--Landform: Plateaus; geomorphic position: backslope; aspect: north

Rubble land--Landform: Plateaus

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Plateaus

Inclusion 3--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 4--Landform: Drainageways

Major Component Description**Sumine Series**

Elevation: 5,600 to 6,300 feet

Precipitation: About 12 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent stones and boulders; 10 percent cobbles; 15 percent gravel

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Cleavage Series

Elevation: 5,600 to 6,300 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Rubble land Miscellaneous Area

Elevation: 5,600 to 6,300 feet

Surface layer texture: Fragmental material

Drainage class: Excessively drained

Dominant Present Vegetation

Sumine: Idaho fescue, Thurber needlegrass, basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Cleavage: Idaho fescue, bluebunch wheatgrass, low sagebrush

Rubble land: None

Inclusion 1: Nevada bluegrass, Woods rose, quaking aspen, sedge

Inclusion 2: None

Inclusion 3: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush

Inclusion 4: Nevada bluegrass, basin wildrye, sedge, timothy

Ecological Site

Sumine: 025XY009NV

Cleavage: 025XY017NV

Rubble land: None
 Inclusion 1: 025XY064NV
 Inclusion 2: none
 Inclusion 3: 025XY012NV
 Inclusion 4: 025XY006NV

589--Sumine-Ninemile-Harcany association

Composition

Major Components

Sumine very cobbly loam, 30 to 50 percent slopes--35 percent
 Ninemile cobbly loam, 15 to 50 percent slopes--30 percent
 Harcany gravelly silt loam, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--6 percent
 Inclusion 2: Bregar very gravelly loam, dry, 4 to 15 percent slopes--5 percent
 Inclusion 3: Cumulic Endoaquolls, coarse-loamy, mixed, frigid stony loam, drained, 2 to 4 percent slopes--2 percent
 Inclusion 4: Lithic Cryorthents, loamy-skeletal, mixed, nonacid extremely gravelly sandy loam, 30 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Sumine--Landform: Mountains; shape of slope: concave; aspect: south
 Ninemile--Landform: Mountains; position on slope: upper; shape of slope: convex
 Harcany--Landform: Mountains; shape of slope: concave; aspect: north
 Inclusion 1--Landform: Mountains
 Inclusion 2--Landform: Mountains; geomorphic position: summit
 Inclusion 3--Landform: Drainageways
 Inclusion 4--Landform: Mountains; shape of slope: concave; aspect: north

Major Component Description

Sumine Series

Elevation: 6,500 to 8,500 feet
Precipitation: About 12 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Ninemile Series

Elevation: 6,500 to 8,500 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface rock fragments: 25 percent gravel
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Harcany Series

Elevation: 6,500 to 8,500 feet
Precipitation: About 15 inches
Air temperature: About 40 degrees
Frost-free season: About 50 days
Surface layer texture: Gravelly silt loam
Drainage class: Well drained
Dominant parent material: Colluvium derived from mixed rocks

Dominant Present Vegetation

Sumine: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, mountain brome
 Ninemile: Idaho fescue, Thurber needlegrass, bluebunch wheatgrass, bluegrass, low sagebrush
 Harcany: Idaho fescue, mountain big sagebrush, mountain brome, snowberry
 Inclusion 1: None
 Inclusion 2: Idaho fescue, Webber ricegrass, bluegrass, goldenweed, low sagebrush
 Inclusion 3: Nevada bluegrass, basin big sagebrush, basin wildrye, mat muhly, streambank wheatgrass
 Inclusion 4: Letterman needlegrass, tailcup lupine

Ecological Site

Sumine: 024XY029NV
 Ninemile: 024XY027NV
 Harcany: 024XY032NV
 Inclusion 1: none
 Inclusion 2: 024XY016NV
 Inclusion 3: 025XY003NV
 Inclusion 4: 025XY028NV

590--Trunk-Madeline association

Composition

Major Components

Trunk very stony loam, 15 to 50 percent slopes--65 percent
 Madeline very stony loam, 15 to 50 percent slopes--

20 percent

Contrasting Inclusions

Inclusion 1: Devada very stony loam, 4 to 15 percent slopes--8 percent

Inclusion 2: Rock outcrop--4 percent

Inclusion 3: Kingsriver stony loam, wet, 2 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Plateaus and hills

Trunk--Landform: Hills; geomorphic position: backslope; aspect: south

Madeline--Landform: Hills; geomorphic position: backslope; position on slope: upper; aspect: north

Inclusion 1--Landform: Hills; geomorphic position: summit

Inclusion 2--Landform: Hills

Inclusion 3--Landform: Stream terraces

Major Component Description

Trunk Series

Elevation: 5,300 to 5,700 feet

Precipitation: About 9 inches

Air temperature: About 45 degrees

Frost-free season: About 100 days

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Madeline Series

Elevation: 5,500 to 5,700 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 3 percent stones and boulders; 5 percent cobbles; 10 percent gravel

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Trunk: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush

Madeline: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, mountain big sagebrush

Inclusion 1: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 2: None

Inclusion 3: Bluegrass, rush, tufted hairgrass, willow

Ecological Site

Trunk: 023XY006NV

Madeline: 023XY020NV

Inclusion 1: 023XY031NV

Inclusion 2: none

Inclusion 3: 023XY025NV

592--Trunk-Pocan association

Composition

Major Components

Trunk stony loam, 30 to 50 percent slopes--45 percent

Pocan stony loam, 30 to 50 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Golsum very cobbly loam, 30 to 50 percent slopes--6 percent

Inclusion 2: Madeline stony loam, 30 to 50 percent slopes--5 percent

Inclusion 3: Rock outcrop--3 percent

Inclusion 4: Fluventic Haploxerolls, fine-loamy, mixed, mesic cobbly loam, 0 to 4 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Trunk--Landform: Mountains; geomorphic position: backslope; aspect: south

Pocan--Landform: Mountains; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: south

Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Drainageways

Major Component Description

Trunk Series

Elevation: 5,000 to 6,300 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Pocan Series

Elevation: 5,000 to 6,300 feet

Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Trunk: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Pocan: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 2: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 3: None
 Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Trunk: 024XY005NV
 Pocan: 024XY005NV
 Inclusion 1: 024XY029NV
 Inclusion 2: 024XY021NV
 Inclusion 3: none
 Inclusion 4: 025XY003NV

593--Trunk-Vanwyper-Panlee association

Composition

Major Components

Trunk loam, 8 to 30 percent slopes--35 percent
 Vanwyper very cobbly loam, 30 to 50 percent slopes--30 percent
 Panlee very fine sandy loam, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Orovada fine sandy loam, moist, 2 to 4 percent slopes--5 percent
 Inclusion 2: Soughe cobbly fine sandy loam, 15 to 30 percent slopes--5 percent
 Inclusion 3: Burrita gravelly loam, warm, 30 to 50 percent slopes--4 percent
 Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Trunk--Landform: Hills; geomorphic position: backslope; position on slope: lower
 Vanwyper--Landform: Hills; geomorphic position: backslope; position on slope: upper; aspect: south

Panlee--Landform: Hills; geomorphic position: backslope; position on slope: upper; aspect: north
 Inclusion 1--Landform: Alluvial fans; position on slope: lower
 Inclusion 2--Landform: Mountains; geomorphic position: summit; position on slope: upper
 Inclusion 3--Landform: Hills; geomorphic position: backslope; position on slope: lower; aspect: south
 Inclusion 4--Landform: Hills

Major Component Description

Trunk Series

Elevation: 5,000 to 6,300 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Vanwyper Series

Elevation: 5,000 to 6,300 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Panlee Series

Elevation: 5,000 to 6,300 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Trunk: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush
 Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Panlee: Indian ricegrass, big sagebrush, needleandthread
 Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush

Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
Inclusion 4: None

Ecological Site

Trunk: 024XY005NV
Vanwyper: 024XY028NV
Panlee: 024XY058NV
Inclusion 1: 024XY005NV
Inclusion 2: 024XY005NV
Inclusion 3: 024XY035NV
Inclusion 4: none

594--Trunk-Burrita-Quomus association

Composition

Major Components

Trunk loam, 15 to 50 percent slopes--35 percent
Burrita gravelly loam, 15 to 50 percent slopes--35 percent
Quomus very fine sandy loam, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Panlee very fine sandy loam, 8 to 30 percent slopes--5 percent
Inclusion 2: Rock outcrop--4 percent
Inclusion 3: Fluventic Haploxerolls, coarse-loamy, mixed, mesic very fine sandy loam, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains
Trunk--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north
Burrita--Landform: Mountains; geomorphic position: backslope; aspect: south
Quomus--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
Inclusion 1--Landform: Mountains; geomorphic position: toeslope
Inclusion 2--Landform: Mountains
Inclusion 3--Landform: Drainageways

Major Component Description

Trunk Series

Elevation: 5,100 to 6,100 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Loam

Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Burrita Series

Elevation: 5,100 to 6,100 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Quomus Series

Elevation: 5,100 to 6,100 feet
Precipitation: About 10 inches
Air temperature: About 44 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Trunk: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
Quomus: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
Inclusion 1: Indian ricegrass, big sagebrush, horsebrush, needleandthread
Inclusion 2: None
Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Trunk: 024XY005NV
Burrita: 024XY005NV
Quomus: 024XY013NV
Inclusion 1: 024XY058NV
Inclusion 2: none
Inclusion 3: 025XY003NV

596--Trunk-Burrita association

Composition

Major Components

Trunk very cobbly loam, 15 to 50 percent slopes--60 percent
Burrita stony loam, 4 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Knott very cobbly loam, 15 to 30 percent slopes--8 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Rose Creek silt loam, drained, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Trunk--Landform: Mountains; geomorphic position: backslope
 Burrita--Landform: Mountains; geomorphic position: summit; aspect: south
 Inclusion 1--Landform: Alluvial fans; geomorphic position: toeslope; position on slope: lower
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Drainageways

Major Component Description**Trunk Series**

Elevation: 4,900 to 6,400 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Burrita Series

Elevation: 4,900 to 6,400 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 2 percent stones and boulders; 5 percent cobbles; 10 percent gravel
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Trunk: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Burrita: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: None
 Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Trunk: 024XY005NV

Burrita: 024XY005NV

Inclusion 1: 024XY002NV

Inclusion 2: none

Inclusion 3: 025XY003NV

597--Trunk, gravelly-Burrita association**Composition****Major Components**

Trunk gravelly loam, 4 to 15 percent slopes--40 percent
 Burrita very gravelly loam, 4 to 15 percent slopes--30 percent
 Burrita stony loam, south, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--8 percent
 Inclusion 2: Devada very cobbly clay loam, warm, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Trunk--Landform: Plateaus; geomorphic position: backslope; position on slope: lower
 Burrita--Landform: Plateaus; geomorphic position: summit; position on slope: upper
 Burrita--Landform: Plateaus; geomorphic position: backslope; aspect: south
 Inclusion 1--Landform: Plateaus
 Inclusion 2--Landform: Plateaus; geomorphic position: backslope

Major Component Description**Trunk Series**

Elevation: 4,900 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Burrita Series

Elevation: 4,900 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Burrita Series*Elevation:* 4,900 to 5,500 feet*Precipitation:* About 9 inches*Air temperature:* About 48 degrees*Frost-free season:* About 100 days*Surface layer texture:* Stony loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks***Dominant Present Vegetation***

Trunk: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 1: None

Inclusion 2: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Ecological Site

Trunk: 025XY019NV

Burrita: 025XY019NV

Burrita: 024XY028NV

Inclusion 1: none

Inclusion 2: 024XY018NV

600--Valmy fine sandy loam, 0 to 2 percent slopes***Composition*****Major Components**

Valmy fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Weso very fine sandy loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Rio King loam, slightly saline, 0 to 2 percent slopes--5 percent

Map Unit Setting*Landscape position:* Intermontane basins

Valmy--Landform: Basin floors

Inclusion 1--Landform: Fan skirts; position on slope: upper

Inclusion 2--Landform: Stream terraces; position on slope: lower

Major Component Description**Valmy Series***Elevation:* 4,300 to 4,700 feet*Precipitation:* About 8 inches*Air temperature:* About 49 degrees*Frost-free season:* About 110 days*Surface layer texture:* Fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash***Dominant Present Vegetation***

Valmy: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood

Ecological Site

Valmy: 024XY022NV

Inclusion 1: 024XY002NV

Inclusion 2: 024XY006NV

603--Valmy-Goldrun complex, 0 to 8 percent slopes***Composition*****Major Components**

Valmy fine sandy loam, 0 to 2 percent slopes--60 percent

Goldrun fine sand, 4 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Orovada fine sandy loam, 0 to 2 percent slopes--8 percent

Inclusion 2: Bliss very fine sandy loam, dry, 4 to 8 percent slopes--7 percent

Map Unit Setting*Landscape position:* Intermontane basins

Valmy--Landform: Basin floors

Goldrun--Landform: Dunes

Inclusion 1--Landform: Fan skirts; position on slope: upper

Inclusion 2--Landform: Fan remnants; position on slope: upper

Major Component Description**Valmy Series***Elevation:* 4,400 to 4,700 feet*Precipitation:* About 8 inches*Air temperature:* About 49 degrees*Frost-free season:* About 110 days*Surface layer texture:* Fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash

Goldrun Series*Elevation:* 4,400 to 4,700 feet*Precipitation:* About 8 inches*Air temperature:* About 48 degrees*Frost-free season:* About 100 days*Surface layer texture:* Fine sand*Drainage class:* Somewhat excessively drained*Dominant parent material:* Eolian sand***Dominant Present Vegetation***

Valmy: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail

Goldrun: Indian ricegrass, basin big sagebrush, spiny hopsage

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Valmy: 024XY022NV

Goldrun: 024XY001NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY020NV

604--Valmy-Bubus-Needle Peak complex, 0 to 2 percent slopes***Composition*****Major Components**

Valmy very fine sandy loam, 0 to 2 percent slopes--40 percent

Bubus very fine sandy loam, 0 to 2 percent slopes--25 percent

Needle Peak silt loam, 0 to 2 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Connel very fine sandy loam, slightly saline, 0 to 2 percent slopes--6 percent

Inclusion 2: Shabliss very fine sandy loam, dry, 0 to 2 percent slopes--6 percent

Inclusion 3: Wendane silt loam, 0 to 2 percent slopes--3 percent

Map Unit Setting*Landscape position:* Intermontane basins

Valmy--Landform: Fan skirts

Bubus--Landform: Fan skirts

Needle Peak--Landform: Drainageways

Inclusion 1--Landform: Fan skirts; position on slope: upper

Inclusion 2--Landform: Fan remnants; position on slope: upper

Inclusion 3--Landform: Alluvial flats; position on slope: lower

Major Component Description**Valmy Series***Elevation:* 4,400 to 4,700 feet*Precipitation:* About 8 inches*Air temperature:* About 49 degrees*Frost-free season:* About 110 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash**Bubus Series***Elevation:* 4,400 to 4,700 feet*Precipitation:* About 7 inches*Air temperature:* About 49 degrees*Frost-free season:* About 110 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash**Needle Peak Series***Elevation:* 4,400 to 4,700 feet*Precipitation:* About 8 inches*Air temperature:* About 49 degrees*Frost-free season:* About 110 days*Surface layer texture:* Silt loam*Drainage class:* Somewhat poorly drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash***Dominant Present Vegetation***

Valmy: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail

Bubus: Black greasewood, bottlebrush squirreltail, shadscale

Needle Peak: Basin big sagebrush, basin wildrye, black greasewood

Inclusion 1: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 3: Black greasewood, inland saltgrass

Ecological Site

Valmy: 024XY022NV

Bubus: 024XY003NV

Needle Peak: 024XY006NV

Inclusion 1: 024XY022NV

Inclusion 2: 024XY020NV

Inclusion 3: 024XY011NV

606--Valmy loam, 0 to 2 percent slopes***Composition*****Major Components**

Valmy loam, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Valmy loam, 0 to 2 percent slopes, occasionally flooded--3 percent

Inclusion 2: Bubus loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Valmy--Landform: Inset fans

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Basin-floor remnants

Major Component Description**Valmy Series**

Elevation: 4,100 to 4,300 feet

Precipitation: About 8 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Valmy: Big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 1: Basin big sagebrush, basin wildrye, black greasewood

Inclusion 2: Black greasewood, shadscale

Ecological Site

Valmy: 024XY022NV

Inclusion 1: 024XY006NV

Inclusion 2: 024XY003NV

611--Weso loamy sand, 4 to 8 percent slopes***Composition*****Major Components**

Weso loamy sand, 4 to 8 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Blackhawk silt loam, 4 to 8 percent slopes--5 percent

Inclusion 2: Rad fine sandy loam, 4 to 8 percent slopes--5 percent

Inclusion 3: Valmy fine sandy loam, 4 to 8 percent slopes--2 percent

Inclusion 4: Orovada very fine sandy loam, 2 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Intermontane basins

Weso--Landform: Fan skirts

Inclusion 1--Landform: Fan remnants

Inclusion 2--Landform: Fan skirts; position on slope: upper

Inclusion 3--Landform: Basin floors; position on slope: lower

Inclusion 4--Landform: Drainageways

Major Component Description**Weso Series**

Elevation: 4,400 to 4,800 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy sand

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Weso: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, needleandthread

Inclusion 3: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 4: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Weso: 024XY002NV

Inclusion 1: 024XY002NV

Inclusion 2: 024XY017NV

Inclusion 3: 024XY022NV

Inclusion 4: 024XY020NV

613--Weso-Orovada-Shabliss association***Composition*****Major Components**

Weso very fine sandy loam, 0 to 2 percent slopes--45 percent

Orovada very fine sandy loam, 2 to 8 percent slopes--25 percent
 Shabliss very fine sandy loam, 15 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Goldrun fine sand, 0 to 4 percent slopes--10 percent

Map Unit Setting

Landscape position: Intermontane basins
 Weso--Landform: Fan skirts
 Orovada--Landform: Inset fans
 Shabliss--Landform: Fan remnants
 Inclusion 1--Landform: Dunes

Major Component Description

Weso Series

Elevation: 4,400 to 5,100 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Orovada Series

Elevation: 4,400 to 5,100 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Shabliss Series

Elevation: 4,400 to 5,100 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Weso: Bottlebrush squirreltail, bud sagebrush, shadscale
 Orovada: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Shabliss: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Indian ricegrass, basin big sagebrush

Ecological Site

Weso: 024XY002NV
 Orovada: 024XY020NV
 Shabliss: 024XY005NV
 Inclusion 1: 024XY001NV

614--Weso silt loam, moderately saline, 0 to 2 percent slopes

Composition

Major Components

Weso silt loam, moderately saline, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Weso silt loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Batan silt loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Weso--Landform: Fan skirts
 Inclusion 1--Landform: Fan skirts; position on slope: upper
 Inclusion 2--Landform: Alluvial flats; position on slope: lower

Major Component Description

Weso Series

Elevation: 4,300 to 4,700 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Weso: Black greasewood, bottlebrush squirreltail, shadscale
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Weso: 024XY003NV
 Inclusion 1: 024XY002NV
 Inclusion 2: 024XY003NV

615--Weso fine sandy loam, 0 to 2 percent slopes

Composition

Major Components

Weso fine sandy loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Blackhawk fine sandy loam, 0 to 2 percent slopes--8 percent

Inclusion 2: Orovada very fine sandy loam, 0 to 2 percent slopes--7 percent

Map Unit Setting

Landscape position: Intermontane basins

Weso--Landform: Fan skirts

Inclusion 1--Landform: Fan remnants

Inclusion 2--Landform: Drainageways; position on slope: upper

Major Component Description

Weso Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Weso: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Weso: 024XY002NV

Inclusion 1: 024XY002NV

Inclusion 2: 024XY020NV

617--Weso loam, 2 to 4 percent slopes

Composition

Major Components

Weso loam, 2 to 4 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Dun Glen very fine sandy loam, 2 to 4

percent slopes--5 percent

Inclusion 2: Rebel very fine sandy loam, 0 to 4 percent slopes--7 percent

Inclusion 3: Bubus very fine sandy loam, 0 to 2 percent slopes--3 percent

Map Unit Setting

Landscape position: Intermontane basins

Weso--Landform: Fan skirts

Inclusion 1--Landform: Fan skirts; position on slope: lower

Inclusion 2--Landform: Inset fans; position on slope: upper

Inclusion 3--Landform: Basin-floor remnants; position on slope: lower

Major Component Description

Weso Series

Elevation: 4,400 to 4,800 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Weso: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: Black greasewood, shadscale

Ecological Site

Weso: 024XY002NV

Inclusion 1: 024XY002NV

Inclusion 2: 024XY005NV

Inclusion 3: 024XY003NV

618--Weso-Kelk association

Composition

Major Components

Weso very fine sandy loam, 0 to 2 percent slopes--70 percent

Kelk silt loam, 0 to 2 percent slopes, occasionally flooded--20 percent

Contrasting Inclusions

Inclusion 1: Rebel fine sandy loam, moist, 0 to 2 percent slopes--5 percent

Inclusion 2: Beeox very fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Weso--Landform: Fan skirts

Kelk--Landform: Stream terraces

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Fan remnants

Major Component Description**Weso Series**

Elevation: 4,400 to 4,600 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Kelk Series

Elevation: 4,400 to 4,600 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Weso: Bottlebrush squirreltail, bud sagebrush, shadscale

Kelk: Basin big sagebrush, basin wildrye, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Weso: 024XY002NV

Kelk: 024XY006NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY002NV

619--Weso-Rebel complex, 0 to 2 percent slopes**Composition****Major Components**

Weso very fine sandy loam, 0 to 2 percent slopes--50 percent

Rebel very fine sandy loam, 0 to 2 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Dun Glen very fine sandy loam, 0 to 2 percent slopes--10 percent

Map Unit Setting

Landscape position: Intermontane basins

Weso--Landform: Fan remnants

Rebel--Landform: Inset fans

Inclusion 1--Landform: Fan skirts; position on slope: lower

Major Component Description**Weso Series**

Elevation: 4,300 to 4,700 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Rebel Series

Elevation: 4,300 to 4,700 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Weso: Bottlebrush squirreltail, bud sagebrush, shadscale

Rebel: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Weso: 024XY002NV

Rebel: 024XY005NV

Inclusion 1: 024XY002NV

620--Carstump-Soughe-Ninemile association**Composition****Major Components**

Carstump gravelly loam, 15 to 30 percent slopes--30 percent

Soughe cobbly loam, 4 to 15 percent slopes--30 percent

Ninemile very cobbly loam, moist, 8 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Fluvaquent Haploxerolls, coarse-loamy, mixed, mesic fine sandy loam, 0 to 2 percent slopes--6 percent

Inclusion 2: Soughe gravelly loam, south, 15 to 50 percent slopes--9 percent

Map Unit Setting*Landscape position:* Plateaus

Carstump--Landform: Plateaus; geomorphic position: backslope; shape of slope: plane; aspect: north

Soughe--Landform: Plateaus; geomorphic position: summit; aspect: south

Ninemile--Landform: Plateaus; geomorphic position: backslope; shape of slope: convex; aspect: north

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Plateaus; geomorphic position: backslope; position on slope: upper; aspect: south

Major Component Description**Carstump Series***Elevation:* 5,600 to 6,300 feet*Precipitation:* About 10 inches*Air temperature:* About 44 degrees*Frost-free season:* About 90 days*Surface rock fragments:* 5 percent cobbles; 25 percent gravel*Surface layer texture:* Gravelly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks**Soughe Series***Elevation:* 5,600 to 6,300 feet*Precipitation:* About 10 inches*Air temperature:* About 46 degrees*Frost-free season:* About 90 days*Surface layer texture:* Cobbly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks**Ninemile Series***Elevation:* 5,600 to 6,300 feet*Precipitation:* About 14 inches*Air temperature:* About 43 degrees*Frost-free season:* About 90 days*Surface layer texture:* Very cobbly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from volcanic rocks**Dominant Present Vegetation**

Carstump: Basin wildrye, big sagebrush, bluebunch wheatgrass

Soughe: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Ninemile: Bluebunch wheatgrass, low sagebrush

Inclusion 1: Basin big sagebrush, basin wildrye

Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Ecological Site

Carstump: 025XY014NV

Soughe: 025XY019NV

Ninemile: 025XY022NV

Inclusion 1: 025XY003NV

Inclusion 2: 025XY015NV

631--Burrita-Panlee association**Composition****Major Components**

Burrita stony loam, south, 15 to 50 percent slopes--45 percent

Panlee very fine sandy loam, 15 to 50 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Soughe very cobbly loam, 8 to 30 percent slopes--5 percent

Inclusion 2: Orovada very fine sandy loam, moist, 2 to 8 percent slopes--5 percent

Inclusion 3: Clementine silt loam, drained, 0 to 2 percent slopes--4 percent

Inclusion 4: Rock outcrop--1 percent

Map Unit Setting*Landscape position:* Mountains

Burrita--Landform: Mountains; geomorphic position:

backslope; aspect: south
 Panlee--Landform: Mountains; geomorphic position:
 backslope; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic
 position: summit
 Inclusion 2--Landform: Alluvial fans; position on
 slope: lower
 Inclusion 3--Landform: Drainageways
 Inclusion 4--Landform: Mountains

Major Component Description

Burrita Series

Elevation: 4,500 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from mixed rocks

Panlee Series

Elevation: 4,500 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from mixed rocks

Dominant Present Vegetation

Burrita: Thurber needlegrass, Wyoming big
 sagebrush, bluebunch wheatgrass
 Panlee: Indian ricegrass, big sagebrush,
 needleandthread
 Inclusion 1: Sandberg bluegrass, Wyoming big
 sagebrush, bottlebrush squirreltail
 Inclusion 2: Sandberg bluegrass, Wyoming big
 sagebrush, bottlebrush squirreltail
 Inclusion 3: Basin big sagebrush
 Inclusion 4: None

Ecological Site

Burrita: 024XY028NV
 Panlee: 024XY058NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY005NV

Inclusion 3: 025XY003NV
 Inclusion 4: none

633--Burrita-Midraw association

Composition

Major Components

Burrita very gravelly loam, 4 to 15 percent slopes--
 45 percent
 Midraw gravelly loam, 2 to 8 percent slopes--45
 percent

Contrasting Inclusions

Inclusion 1: Devada cobbly loam, 4 to 15 percent
 slopes--5 percent
 Inclusion 2: Rock outcrop--3 percent
 Inclusion 3: Clementine loam, 2 to 15 percent
 slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Burrita--Landform: Plateaus; geomorphic position:
 backslope
 Midraw--Landform: Plateaus; geomorphic position:
 summit
 Inclusion 1--Landform: Plateaus; geomorphic
 position: shoulder; position on slope: upper
 Inclusion 2--Landform: Plateaus
 Inclusion 3--Landform: Stream terraces

Major Component Description

Burrita Series

Elevation: 5,400 to 5,900 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from mixed rocks

Midraw Series

Elevation: 5,400 to 5,900 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Midraw: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: Thurber needlegrass, low sagebrush
 Inclusion 2: None
 Inclusion 3: Nevada bluegrass, sedge, tufted hairgrass

Ecological Site

Burrita: 025XY019NV
 Midraw: 025XY019NV
 Inclusion 1: 025XY018NV
 Inclusion 2: none
 Inclusion 3: 025XY005NV

634--Burrita-Devada-Zymans association

Composition

Major Components

Burrita very gravelly loam, moist, 15 to 50 percent slopes--35 percent
 Devada very cobbly loam, 8 to 30 percent slopes--25 percent
 Zymans gravelly loam, 8 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Devada cobbly loam, 8 to 30 percent slopes--8 percent
 Inclusion 2: Burrita extremely gravelly clay loam, 30 to 75 percent slopes--4 percent
 Inclusion 3: Xipe cobbly loam, drained, 4 to 15 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains and foothills
 Burrita--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south
 Devada--Landform: Mountains; geomorphic position: backslope; shape of slope: convex
 Zymans--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; aspect: south

Inclusion 3--Landform: Drainageways

Major Component Description

Burrita Series

Elevation: 4,800 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 4 percent cobbles; 45 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Devada Series

Elevation: 4,800 to 5,500 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Zymans Series

Elevation: 4,800 to 5,500 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Burrita: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Devada: Bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush
 Zymans: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 1: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Burrita: 023XY039NV
 Devada: 023XY060NV
 Zymans: 023XY020NV
 Inclusion 1: 023XY031NV
 Inclusion 2: 024XY045NV

Inclusion 3: 023XY009NV

636--Burrita-Rubble land-Clementine association

Composition

Major Components

Burrita very cobbly loam, moist, 30 to 50 percent slopes--40 percent
 Rubble land fragmental material, 15 to 75 percent slopes--35 percent
 Clementine silt loam, drained, 0 to 2 percent slopes--10 percent

Contrasting Inclusions

Inclusion 1: Rocconda cobbly loam, moist, 15 to 30 percent slopes--9 percent
 Inclusion 2: Zymans stony loam, cool, 30 to 50 percent slopes--4 percent
 Inclusion 3: Xipe silt loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Burrita--Landform: Plateaus; geomorphic position: backslope
 Rubble land--Landform: Plateaus; geomorphic position: backslope
 Clementine--Landform: Stream terraces
 Inclusion 1--Landform: Plateaus; geomorphic position: backslope; position on slope: lower; aspect: north
 Inclusion 2--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 3--Landform: Flood plains

Major Component Description

Burrita Series

Elevation: 4,600 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Rubble land Miscellaneous Area

Elevation: 4,600 to 5,000 feet
Surface layer texture: Fragmental material
Drainage class: Excessively drained

Clementine Series

Elevation: 4,600 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Rubble land: None
 Clementine: Nevada bluegrass, basin big sagebrush, basin wildrye
 Inclusion 1: Thurber needlegrass, bottlebrush squirreltail, sagebrush
 Inclusion 2: Basin wildrye, big sagebrush, bluebunch wheatgrass
 Inclusion 3: Bluegrass, rose, rush, sedge

Ecological Site

Burrita: 023XY039NV
 Clementine: 023XY005NV
 Rubble land: None
 Inclusion 1: 023XY037NV
 Inclusion 2: 023XY039NV
 Inclusion 3: 023XY025NV

637--Burrita-Dewar association

Composition

Major Components

Burrita very cobbly loam, warm, 8 to 15 percent slopes--35 percent
 Dewar cobbly silt loam, 2 to 8 percent slopes--30 percent
 Burrita stony loam, 8 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Hunnton cobbly loam, moist, 4 to 8 percent slopes--7 percent
 Inclusion 2: Quomus gravelly loam, 15 to 30 percent slopes--5 percent
 Inclusion 3: Soughe very cobbly loam, dry, 30 to 50 percent slopes--2 percent
 Inclusion 4: Rio King loam, 2 to 4 percent slopes, rarely flooded--1 percent

Map Unit Setting

Landscape position: Hills and intermontane basins

Burrita--Landform: Hills; geomorphic position: backslope; aspect: south
 Dewar--Landform: Fan remnants; geomorphic position: summit
 Burrita--Landform: Hills; geomorphic position: backslope; shape of slope: convex; aspect: north
 Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Inclusion 2--Landform: Hills; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 3--Landform: Hills; geomorphic position: backslope; aspect: south
 Inclusion 4--Landform: Drainageways

Major Component Description

Burrita Series

Elevation: 4,500 to 5,400 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 2 percent stones and boulders; 15 percent cobbles; 30 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dewar Series

Elevation: 4,500 to 5,400 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Cobbly silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Burrita Series

Elevation: 4,500 to 5,400 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 2 percent stones and boulders; 5 percent cobbles; 10 percent gravel
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Burrita: Sandberg bluegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail

Dewar: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush
 Burrita: Indian ricegrass, Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush
 Inclusion 1: Big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Inclusion 2: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 3: Wyoming big sagebrush, bluegrass, spiny hopsage
 Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Burrita: 024XY035NV
 Dewar: 023XY006NV
 Burrita: 023XY006NV
 Inclusion 1: 023XY020NV
 Inclusion 2: 023XY020NV
 Inclusion 3: 023XY038NV
 Inclusion 4: 023XY005NV

638--Burrita-Soughe-Panlee association

Composition

Major Components

Burrita extremely gravelly loam, dry, 15 to 50 percent slopes--45 percent
 Soughe very gravelly loam, 15 to 50 percent slopes--30 percent
 Panlee gravelly very fine sandy loam, 15 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Davey loamy fine sand, 4 to 15 percent slopes--8 percent
 Inclusion 2: Rodock loam, moist, 2 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Burrita--Landform: Mountains; geomorphic position: backslope; aspect: south
 Soughe--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north
 Panlee--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 1--Landform: Sand sheets
 Inclusion 2--Landform: Drainageways

Major Component Description

Burrita Series

Elevation: 4,500 to 6,100 feet
Precipitation: About 9 inches

Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 5 percent cobbles; 60 percent gravel
Surface layer texture: Extremely gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Soughe Series

Elevation: 4,500 to 6,100 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Panlee Series

Elevation: 4,500 to 6,100 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 5 percent cobbles; 15 percent gravel
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Burrita: Indian ricegrass, Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, spiny hopsage
 Soughe: Thurber needlegrass, Wyoming big sagebrush, basin wildrye, bottlebrush squirreltail
 Panlee: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush, basin wildrye, needleandthread
 Inclusion 1: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, needleandthread, spiny hopsage
 Inclusion 2: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Burrita: 024XY020NV
 Soughe: 024XY005NV
 Panlee: 024XY058NV
 Inclusion 1: 024XY017NV
 Inclusion 2: 025XY003NV

640--Clementine silt loam, drained

Composition

Major Components

Clementine silt loam, drained, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Clementine silt loam, slightly saline, 0 to 2 percent slopes--5 percent
 Inclusion 2: Paranat silty clay loam, drained, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Clementine--Landform: Stream terraces
 Inclusion 1--Landform: Flood plains
 Inclusion 2--Landform: Stream terraces; position on slope: upper

Major Component Description

Clementine Series

Elevation: 4,600 to 5,700 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Clementine: Basin big sagebrush, basin wildrye, rubber rabbitbrush
 Inclusion 1: Basin wildrye, creeping wildrye, willow
 Inclusion 2: Alkali sacaton, basin wildrye, black greasewood

Ecological Site

Clementine: 025XY003NV
 Inclusion 1: 025XY001NV
 Inclusion 2: 024XY007NV

641--Clementine, drained-Paranat complex

Composition

Major Components

Clementine silt loam, drained, 0 to 2 percent slopes--45 percent

Paranat silt loam, 0 to 2 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Paranat silty clay loam, drained, 0 to 2 percent slopes--6 percent

- Inclusion 2: Bubus very fine sandy loam, 0 to 2 percent slopes--4 percent
 Inclusion 3: Valmy fine sandy loam, 2 to 4 percent slopes--3 percent
 Inclusion 4: Rebel very fine sandy loam, 0 to 2 percent slopes, occasionally flooded--2 percent

Map Unit Setting

- Landscape position:* Intermontane basins
 Clementine--Landform: Stream terraces
 Paranaat--Landform: Flood plains
 Inclusion 1--Landform: Stream terraces; position on slope: upper
 Inclusion 2--Landform: Alluvial flats; position on slope: upper
 Inclusion 3--Landform: Fan skirts; position on slope: upper
 Inclusion 4--Landform: Inset fans; position on slope: upper

Major Component Description

Clementine Series

- Elevation:* 4,500 to 5,300 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Paranaat Series

- Elevation:* 4,500 to 5,300 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

- Clementine: Nevada bluegrass, basin big sagebrush, basin wildrye
 Paranaat: Basin wildrye, creeping wildrye, willow
 Inclusion 1: Alkali sacaton, basin wildrye, black greasewood
 Inclusion 2: Black greasewood, inland saltgrass, shadscale
 Inclusion 3: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail
 Inclusion 4: Basin big sagebrush, basin wildrye, black greasewood

Ecological Site

- Clementine: 025XY003NV
 Paranaat: 025XY001NV
 Inclusion 1: 024XY007NV
 Inclusion 2: 024XY003NV
 Inclusion 3: 024XY022NV
 Inclusion 4: 024XY006NV

642--Clementine-Rose Creek complex

Composition

Major Components

- Clementine silt loam, slightly saline, 0 to 2 percent slopes--50 percent
 Rose Creek loam, drained, 0 to 2 percent slopes--40 percent

Contrasting Inclusions

- Inclusion 1: Aquic Natrargids, fine-loamy, mixed, mesic very fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Xipe very fine sandy loam, slightly saline, 0 to 2 percent slopes--5 percent

Map Unit Setting

- Landscape position:* Intermontane basins
 Clementine--Landform: Flood plains
 Rose Creek--Landform: Stream terraces
 Inclusion 1--Landform: Basin-floor remnants
 Inclusion 2--Landform: Drainageways

Major Component Description

Clementine Series

- Elevation:* 4,500 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Rose Creek Series

- Elevation:* 4,500 to 5,000 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

- Clementine: Basin wildrye, creeping wildrye, rush

Rose Creek: Basin big sagebrush, basin wildrye,
black greasewood
Inclusion 1: Basin big sagebrush, basin wildrye,
black greasewood
Inclusion 2: Basin big sagebrush, basin wildrye,
black greasewood

Ecological Site

Clementine: 025XY001NV
Rose Creek: 024XY006NV
Inclusion 1: 024XY006NV
Inclusion 2: 024XY006NV

646--Clementine-Paranat complex

Composition

Major Components

Clementine silt loam, slightly saline, 0 to 2 percent
slopes--45 percent
Paranat silt loam, moderately wet, 0 to 2 percent
slopes--40 percent

Contrasting Inclusions

Inclusion 1: Paranat silt loam, strongly sodic, 0 to 2
percent slopes--8 percent
Inclusion 2: Sonoma silt loam, strongly saline, 0 to 2
percent slopes--7 percent

Map Unit Setting

Landscape position: Intermontane basins
Clementine--Landform: Flood plains
Paranat--Landform: Stream terraces
Inclusion 1--Landform: Stream terraces; position on
slope: upper
Inclusion 2--Landform: Alluvial flats; position on
slope: upper

Major Component Description

Clementine Series

Elevation: 4,300 to 4,900 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Paranat Series

Elevation: 4,300 to 4,900 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees

Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from
mixed rocks

Dominant Present Vegetation

Clementine: Creeping wildrye, rush
Paranat: Basin wildrye, silver buffaloberry
Inclusion 1: Black greasewood, inland saltgrass,
silver buffaloberry
Inclusion 2: Alkali sacaton, black greasewood, inland
saltgrass

Ecological Site

Clementine: 025XY001NV
Paranat: 024XY063NV
Inclusion 1: 024XY064NV
Inclusion 2: 024XY007NV

651--Burrita-Soughe-Atlow association

Composition

Major Components

Burrita gravelly loam, 15 to 50 percent slopes--40
percent
Soughe very gravelly loam, dry, 15 to 50 percent
slopes--30 percent
Atlow very cobbly loam, 15 to 50 percent slopes--
20 percent

Contrasting Inclusions

Inclusion 1: Puffer very cobbly loam, 50 to 75
percent slopes--5 percent
Inclusion 2: Rebel very fine sandy loam, 4 to 15
percent slopes--3 percent
Inclusion 3: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains
Burrita--Landform: Mountains; geomorphic position:
backslope; shape of slope: concave; aspect:
north
Soughe--Landform: Mountains; geomorphic position:
backslope; shape of slope: concave; aspect:
south
Atlow--Landform: Mountains; geomorphic position:
backslope; shape of slope: convex
Inclusion 1--Landform: Mountains; geomorphic
position: backslope
Inclusion 2--Landform: Mountains; geomorphic
position: toeslope; position on slope: lower
Inclusion 3--Landform: Mountains

Major Component Description**Burrita Series**

Elevation: 4,800 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Soughe Series

Elevation: 4,800 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Atlow Series

Elevation: 4,800 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from mixed rocks

Dominant Present Vegetation

Burrita: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Soughe: Wyoming big sagebrush, bottlebrush squirreltail, shadscale
 Atlow: Thurber needlegrass, black sagebrush, bluegrass, bottlebrush squirreltail
 Inclusion 1: Black sagebrush, bluegrass, bottlebrush squirreltail
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: None

Ecological Site

Burrita: 024XY005NV
 Soughe: 024XY020NV
 Atlow: 024XY030NV
 Inclusion 1: 024XY030NV
 Inclusion 2: 024XY005NV
 Inclusion 3: none

652--Burrita-Havingdon-Reluctan association**Composition****Major Components**

Burrita gravelly loam, 15 to 50 percent slopes--45 percent
 Havingdon gravelly loam, 15 to 50 percent slopes--20 percent
 Reluctan gravelly loam, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Devada very cobbly loam, warm, 15 to 50 percent slopes--5 percent
 Inclusion 2: Burrita very gravelly loam, 15 to 50 percent slopes--5 percent
 Inclusion 3: Rock outcrop--5 percent

Map Unit Setting

Landscape position: Mountains
 Burrita--Landform: Mountains; geomorphic position: backslope; aspect: south
 Havingdon--Landform: Mountains; geomorphic position: backslope
 Reluctan--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south
 Inclusion 3--Landform: Mountains

Major Component Description**Burrita Series**

Elevation: 5,000 to 6,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 2 percent stones and boulders; 10 percent cobbles; 30 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Havingdon Series

Elevation: 5,000 to 6,500 feet
Precipitation: About 9 inches

Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from sedimentary rocks

Reluctan Series

Elevation: 5,000 to 6,500 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Havingdon: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Reluctan: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 1: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 2: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: None

Ecological Site

Burrita: 024XY005NV
 Havingdon: 024XY035NV
 Reluctan: 024XY021NV
 Inclusion 1: 024XY018NV
 Inclusion 2: 024XY005NV
 Inclusion 3: none

653--Burrita-Vanwyper-Havingdon association

Composition

Major Components

Burrita stony loam, south, 30 to 50 percent slopes--30 percent
 Vanwyper stony loam, 15 to 50 percent slopes--30 percent
 Havingdon very cobbly loam, 15 to 50 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Reluctan loam, dry, 30 to 50 percent slopes--6 percent

Inclusion 2: Rock outcrop--4 percent
 Inclusion 3: Rodock loam, moist, 2 to 4 percent slopes--3 percent
 Inclusion 4: Hoot very cobbly loam, 15 to 30 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Burrita--Landform: Mountains; geomorphic position: backslope; aspect: south
 Vanwyper--Landform: Mountains; geomorphic position: backslope; aspect: north
 Havingdon--Landform: Mountains; geomorphic position: backslope
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Drainageways
 Inclusion 4--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south

Major Component Description

Burrita Series

Elevation: 5,000 to 6,300 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Vanwyper Series

Elevation: 5,000 to 6,300 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Havingdon Series

Elevation: 5,000 to 6,300 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from sedimentary rocks

Dominant Present Vegetation

Burrita: Thurber needlegrass, basin wildrye, big sagebrush, bluebunch wheatgrass
 Vanwyper: Basin wildrye, big sagebrush, bluebunch wheatgrass
 Havingdon: Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Inclusion 1: Idaho fescue, basin wildrye, big sagebrush, bluebunch wheatgrass
 Inclusion 2: None
 Inclusion 3: Basin big sagebrush, basin wildrye
 Inclusion 4: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Burrita: 024XY028NV
 Vanwyper: 025XY019NV
 Havingdon: 024XY035NV
 Inclusion 1: 025XY014NV
 Inclusion 2: none
 Inclusion 3: 025XY003NV
 Inclusion 4: 024XY025NV

654--Burrita-Panlee-Rock outcrop association***Composition*****Major Components**

Burrita very cobbly loam, 15 to 50 percent slopes--40 percent
 Panlee very cobbly very fine sandy loam, dry, 30 to 50 percent slopes--35 percent
 Rock outcrop--10 percent

Contrasting Inclusions

Inclusion 1: Panlee very cobbly loam, dry, 50 to 75 percent slopes--7 percent
 Inclusion 2: Panlee very fine sandy loam, 15 to 50 percent slopes--6 percent
 Inclusion 3: Hoot very cobbly loam, 15 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Burrita--Landform: Mountains; geomorphic position: backslope; aspect: north
 Panlee--Landform: Mountains; geomorphic position: backslope; aspect: south
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; aspect: south
 Inclusion 2--Landform: Mountains; geomorphic position: footslope; shape of slope: concave;

aspect: north

Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south

Major Component Description**Burrita Series**

Elevation: 5,300 to 6,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 2 percent stones and boulders; 20 percent cobbles; 20 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Panlee Series

Elevation: 5,300 to 6,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very cobbly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 5,300 to 6,200 feet

Dominant Present Vegetation

Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Panlee: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Rock outcrop: None
 Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage
 Inclusion 2: Basin wildrye, big sagebrush, needleandthread
 Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Burrita: 024XY005NV
 Panlee: 024XY020NV
 Rock outcrop: None
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY058NV
 Inclusion 3: 024XY025NV

655--Soughe-Hoot association**Composition****Major Components**

Soughe extremely gravelly fine sandy loam, dry, 15 to 50 percent slopes--60 percent
 Hoot very cobbly loam, 15 to 50 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--5 percent
 Inclusion 2: Burrita very gravelly loam, 30 to 50 percent slopes--5 percent
 Inclusion 3: Panlee very cobbly very fine sandy loam, 15 to 30 percent slopes--5 percent

Map Unit Setting

Landscape position: Mountains
 Soughe--Landform: Mountains; geomorphic position: summit; aspect: north
 Hoot--Landform: Mountains; geomorphic position: backslope; aspect: south
 Inclusion 1--Landform: Mountains
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: north

Major Component Description**Soughe Series**

Elevation: 4,600 to 6,400 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Extremely gravelly fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Hoot Series

Elevation: 4,600 to 5,600 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Soughe: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Hoot: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: None
 Inclusion 2: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Soughe: 024XY020NV
 Hoot: 024XY025NV
 Inclusion 1: none
 Inclusion 2: 024XY005NV
 Inclusion 3: 024XY058NV

657--Burrta-Snowmore-Rock outcrop association**Composition****Major Components**

Burrta very gravelly loam, 8 to 30 percent slopes--40 percent
 Snowmore very fine sandy loam, 2 to 8 percent slopes--35 percent
 Rock outcrop--10 percent

Contrasting Inclusions

Inclusion 1: Soughe gravelly very fine sandy loam, dry, 0 to 4 percent slopes--6 percent
 Inclusion 2: Vanwyper very cobbly loam, moist, 15 to 50 percent slopes--5 percent
 Inclusion 3: Burrta gravelly loam, warm, 15 to 50 percent slopes--2 percent
 Inclusion 4: Rodock loam, moist, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Burrta--Landform: Mountains; geomorphic position: backslope
 Snowmore--Landform: Mountains; geomorphic position: summit
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; geomorphic position: summit
 Inclusion 2--Landform: Mountains; geomorphic

position: backslope; shape of slope: concave;
aspect: north

Inclusion 3--Landform: Mountains; geomorphic
position: shoulder

Inclusion 4--Landform: Drainageways

Major Component Description

Burrита Series

Elevation: 4,600 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium
derived from mixed rocks

Snowmore Series

Elevation: 4,600 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum derived from
volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 4,600 to 5,500 feet

Dominant Present Vegetation

Burrита: Sandberg bluegrass, Wyoming big
sagebrush, bottlebrush squirreltail

Snowmore: Thurber needlegrass, Wyoming big
sagebrush, bottlebrush squirreltail

Rock outcrop: None

Inclusion 1: Wyoming big sagebrush, bottlebrush
squirreltail, spiny hopsage

Inclusion 2: Thurber needlegrass, Wyoming big
sagebrush, bluebunch wheatgrass

Inclusion 3: Thurber needlegrass, Wyoming big
sagebrush, bluebunch wheatgrass

Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Burrита: 024XY005NV

Snowmore: 024XY005NV

Rock outcrop: None

Inclusion 1: 024XY020NV

Inclusion 2: 025XY019NV

Inclusion 3: 024XY035NV

Inclusion 4: 025XY003NV

**658--Burrита-Panlee-Burrита, very gravelly
association**

Composition

Major Components

Burrита gravelly loam, warm, 15 to 50 percent
slopes--40 percent

Panlee gravelly very fine sandy loam, 15 to 50
percent slopes--25 percent

Burrита very gravelly loam, 15 to 50 percent slopes--
20 percent

Contrasting Inclusions

Inclusion 1: Hoot very gravelly loam, 15 to 50
percent slopes--9 percent

Inclusion 2: Vanwyper very cobbly loam, 30 to 50
percent slopes--4 percent

Inclusion 3: McConnel gravelly fine sandy loam, 4 to
15 percent slopes, rarely flooded--1 percent

Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Hills

Burrита--Landform: Hills; geomorphic position:
backslope; aspect: south

Panlee--Landform: Hills; geomorphic position:
backslope; aspect: north

Burrита--Landform: Hills; geomorphic position:
backslope

Inclusion 1--Landform: Hills; position on slope: lower

Inclusion 2--Landform: Hills; geomorphic position:
backslope; position on slope: upper; shape of
slope: concave; aspect: south

Inclusion 3--Landform: Drainageways

Inclusion 4--Landform: Hills

Major Component Description

Burrита Series

Elevation: 5,000 to 6,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium
derived from mixed rocks

Panlee Series

Elevation: 5,000 to 6,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface rock fragments: 5 percent cobbles; 15

percent gravel

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Burrita Series

Elevation: 5,000 to 6,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Burrita: Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail

Panlee: Indian ricegrass, big sagebrush, needleandthread

Burrita: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 3: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 4: None

Ecological Site

Burrita: 024XY035NV

Panlee: 024XY058NV

Burrita: 024XY005NV

Inclusion 1: 024XY025NV

Inclusion 2: 024XY028NV

Inclusion 3: 024XY005NV

Inclusion 4: none

660--Oxcorel-Beoska-Whirlo association

Composition

Major Components

Oxcorel gravelly very fine sandy loam, 2 to 8 percent slopes--30 percent

Beoska gravelly very fine sandy loam, 2 to 8 percent slopes--30 percent

Whirlo gravelly very fine sandy loam, 2 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: McConnel gravelly very fine sandy loam, 2 to 8 percent slopes--7 percent

Inclusion 2: Rodock loam, slightly saline, 2 to 4 percent slopes--5 percent

Inclusion 3: McConnel gravelly very fine sandy loam, 15 to 30 percent slopes--2 percent

Inclusion 4: Whirlo very fine sandy loam, moderately saline, 0 to 4 percent slopes--1 percent

Map Unit Setting

Landscape position: Fan piedmonts

Oxcorel--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Beoska--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Whirlo--Landform: Inset fans

Inclusion 1--Landform: Inset fans; position on slope: upper

Inclusion 2--Landform: Drainageways

Inclusion 3--Landform: Fan remnants; geomorphic position: backslope

Inclusion 4--Landform: Fan skirts; position on slope: lower

Major Component Description

Oxcorel Series

Elevation: 4,300 to 5,500 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 1 percent cobbles; 30 percent gravel

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Beoska Series

Elevation: 4,300 to 5,500 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Whirlo Series

Elevation: 4,300 to 5,500 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Oxcorel: Bottlebrush squirreltail, bud sagebrush, shadscale

Beoska: Bottlebrush squirreltail, bud sagebrush, shadscale

Whirlo: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 4: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Oxcorel: 024XY002NV

Beoska: 024XY002NV

Whirlo: 024XY002NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY006NV

Inclusion 3: 024XY020NV

Inclusion 4: 024XY003NV

661--Oxcorel-Orovada association***Composition*****Major Components**

Oxcorel gravelly very fine sandy loam, 2 to 8 percent slopes--60 percent

Orovada gravelly very fine sandy loam, 2 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Snapp gravelly very fine sandy loam, 2 to 8 percent slopes--8 percent

Inclusion 2: Dun Glen very fine sandy loam, 0 to 2 percent slopes--7 percent

Map Unit Setting

Landscape position: Fan piedmonts

Oxcorel--Landform: Fan remnants

Orovada--Landform: Inset fans

Inclusion 1--Landform: Fan remnants; position on slope: upper

Inclusion 2--Landform: Inset fans; position on slope: lower

Major Component Description**Oxcorel Series**

Elevation: 4,300 to 5,500 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Orovada Series

Elevation: 4,300 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Oxcorel: Bottlebrush squirreltail, bud sagebrush, shadscale

Orovada: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Oxcorel: 024XY002NV

Orovada: 024XY020NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY002NV

663--Oxcorel-Weso-Beoska association***Composition*****Major Components**

Oxcorel gravelly very fine sandy loam, 2 to 8 percent slopes--45 percent

Weso very fine sandy loam, 2 to 8 percent slopes--25 percent

Beoska very fine sandy loam, 2 to 8 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: McConnel gravelly very fine sandy loam, 2 to 8 percent slopes, occasionally flooded--5 percent

Inclusion 2: Dun Glen very fine sandy loam, 2 to 8 percent slopes--4 percent

Inclusion 3: Snapp gravelly very fine sandy loam, 2 to 8 percent slopes--3 percent

Inclusion 4: McConnel gravelly very fine sandy loam, 15 to 30 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Oxcorel--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Weso--Landform: Inset fans
 Beoska--Landform: Fan remnants; geomorphic position: summit; position on slope: lower
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Inset fans; position on slope: lower
 Inclusion 3--Landform: Fan remnants; position on slope: upper
 Inclusion 4--Landform: Fan remnants; geomorphic position: backslope

Major Component Description**Oxcorel Series**

Elevation: 4,300 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 1 percent cobbles; 15 percent gravel
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Weso Series

Elevation: 4,300 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Beoska Series

Elevation: 4,300 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Oxcorel: Bottlebrush squirreltail, bud sagebrush, shadscale
 Weso: Bottlebrush squirreltail, bud sagebrush, shadscale

Beoska: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 3: Wyoming big sagebrush, bluegrass, bottlebrush squirreltail
 Inclusion 4: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Oxcorel: 024XY002NV
 Weso: 024XY002NV
 Beoska: 024XY002NV
 Inclusion 1: 024XY006NV
 Inclusion 2: 024XY002NV
 Inclusion 3: 024XY005NV
 Inclusion 4: 024XY020NV

664--Oxcorel-Golconda association**Composition****Major Components**

Oxcorel gravelly very fine sandy loam, 2 to 8 percent slopes--50 percent
 Golconda silt loam, 2 to 8 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Rebel very fine sandy loam, 2 to 4 percent slopes, occasionally flooded--5 percent
 Inclusion 2: McConnel gravelly very fine sandy loam, 0 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Oxcorel--Landform: Fan remnants; position on slope: lower
 Golconda--Landform: Fan remnants; position on slope: upper
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Inset fans

Major Component Description**Oxcorel Series**

Elevation: 4,300 to 5,700 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Golconda Series*Elevation:* 4,300 to 5,700 feet*Precipitation:* About 7 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Silt loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash***Dominant Present Vegetation***

Oxcorel: Bottlebrush squirreltail, bud sagebrush, shadscale

Golconda: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Basin big sagebrush, basin wildrye

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Oxcorel: 024XY002NV

Golconda: 024XY002NV

Inclusion 1: 024XY006NV

Inclusion 2: 024XY020NV

665--Oxcorel-Snapp association***Composition*****Major Components**

Oxcorel cobbly very fine sandy loam, 2 to 8 percent slopes--45 percent

Snapp very cobbly very fine sandy loam, 2 to 8 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Whirlo gravelly very fine sandy loam, 2 to 8 percent slopes--6 percent

Inclusion 2: McConnel gravelly very fine sandy loam, 2 to 8 percent slopes--5 percent

Inclusion 3: Knott very fine sandy loam, 2 to 8 percent slopes--4 percent

Map Unit Setting*Landscape position:* Fan piedmonts

Oxcorel--Landform: Fan remnants; position on slope: lower

Snapp--Landform: Fan remnants; position on slope: upper

Inclusion 1--Landform: Inset fans; position on slope: lower

Inclusion 2--Landform: Inset fans; position on slope: upper

Inclusion 3--Landform: Fan remnants

Major Component Description**Oxcorel Series***Elevation:* 4,300 to 5,800 feet*Precipitation:* About 7 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Cobbly very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash**Snapp Series***Elevation:* 4,300 to 5,800 feet*Precipitation:* About 9 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Very cobbly very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks***Dominant Present Vegetation***

Oxcorel: Bottlebrush squirreltail, bud sagebrush, shadscale

Snapp: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Oxcorel: 024XY002NV

Snapp: 024XY020NV

Inclusion 1: 024XY002NV

Inclusion 2: 024XY020NV

Inclusion 3: 024XY002NV

669--Oxcorel-Dewar-Soughe association***Composition*****Major Components**

Oxcorel very fine sandy loam, 2 to 4 percent slopes--45 percent

Dewar gravelly silt loam, 2 to 8 percent slopes--25 percent

Soughe cobbly loam, dry, 15 to 30 percent slopes--15 percent

Contrasting Inclusions

- Inclusion 1: Wieland gravelly loam, 8 to 15 percent slopes--7 percent
 Inclusion 2: Enko very fine sandy loam, moist, 0 to 2 percent slopes--6 percent
 Inclusion 3: Clementine silt loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

- Landscape position:* Plateaus
 Oxcorel--Landform: Plateaus; geomorphic position: summit; shape of slope: plane
 Dewar--Landform: Plateaus; geomorphic position: summit; shape of slope: concave
 Soughe--Landform: Plateaus; geomorphic position: backslope
 Inclusion 1--Landform: Plateaus; geomorphic position: footslope
 Inclusion 2--Landform: Plateaus; geomorphic position: toeslope
 Inclusion 3--Landform: Stream terraces

Major Component Description**Oxcorel Series**

- Elevation:* 4,600 to 5,000 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dewar Series

- Elevation:* 4,600 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Soughe Series

- Elevation:* 4,600 to 5,000 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

- Oxcorel: Bottlebrush squirreltail, bud sagebrush, shadscale, spiny hopsage
 Dewar: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Soughe: Wyoming big sagebrush, bottlebrush squirreltail, horsebrush, spiny hopsage
 Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Wyoming big sagebrush, basin wildrye, bottlebrush squirreltail
 Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

- Oxcorel: 024XY002NV
 Dewar: 024XY020NV
 Soughe: 024XY020NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY005NV
 Inclusion 3: 025XY003NV

670--Devada-Goosel association**Composition****Major Components**

- Devada cobbly very fine sandy loam, 2 to 4 percent slopes--35 percent
 Devada very cobbly very fine sandy loam, 4 to 15 percent slopes--30 percent
 Goosel very fine sandy loam, 2 to 8 percent slopes--25 percent

Contrasting Inclusions

- Inclusion 1: Devada extremely cobbly loam, 2 to 4 percent slopes, rarely flooded--9 percent
 Inclusion 2: Rock outcrop--1 percent

Map Unit Setting

- Landscape position:* Plateaus
 Devada--Landform: Plateaus; geomorphic position: summit
 Devada--Landform: Plateaus; geomorphic position: backslope
 Goosel--Landform: Plateaus; geomorphic position: summit
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Plateaus

Major Component Description**Devada Series**

- Elevation:* 5,600 to 6,000 feet
Precipitation: About 10 inches

Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Devada Series

Elevation: 5,600 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Goosel Series

Elevation: 5,600 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Devada: Thurber needlegrass, bluebunch wheatgrass, bluegrass, low sagebrush
 Devada: Thurber needlegrass, bluebunch wheatgrass, bluegrass, low sagebrush
 Goosel: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bluegrass
 Inclusion 1: Bluebunch wheatgrass, bluegrass, low sagebrush
 Inclusion 2: None

Ecological Site

Devada: 025XY018NV
 Devada: 025XY022NV
 Goosel: 025XY019NV
 Inclusion 1: 025XY022NV
 Inclusion 2: none

671--Devada-Burrita-Rock outcrop association

Composition

Major Components

Devada cobbly loam, 4 to 15 percent slopes--50 percent

Burrita very gravelly loam, 8 to 30 percent slopes--20 percent

Rock outcrop--15 percent

Contrasting Inclusions

Inclusion 1: Ninemile gravelly loam, 4 to 15 percent slopes--6 percent

Inclusion 2: Pachic Haploxerolls, fine-loamy, mixed, mesic loam, 8 to 30 percent slopes--5 percent

Inclusion 3: Clementine silt loam, high water table, 4 to 15 percent slopes--4 percent

Map Unit Setting

Landscape position: Plateaus

Devada--Landform: Plateaus; geomorphic position: summit; aspect: south

Burrita--Landform: Plateaus; geomorphic position: backslope; aspect: south

Rock outcrop--Landform: Plateaus

Inclusion 1--Landform: Plateaus; geomorphic position: shoulder; aspect: north

Inclusion 2--Landform: Plateaus; geomorphic position: footslope

Inclusion 3--Landform: Drainageways

Major Component Description

Devada Series

Elevation: 5,200 to 6,300 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Burrita Series

Elevation: 5,200 to 6,300 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 5 percent cobbles; 30 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 5,200 to 6,300 feet

Dominant Present Vegetation

Devada: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Rock outcrop: None
 Inclusion 1: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Inclusion 2: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 3: Nevada bluegrass, rose, rush, tufted hairgrass

Ecological Site

Devada: 025XY018NV
 Burrita: 025XY019NV
 Rock outcrop: None
 Inclusion 1: 025XY017NV
 Inclusion 2: 025XY014NV
 Inclusion 3: 025XY005NV

673--Devada association

Composition

Major Components

Devada very gravelly loam, 2 to 8 percent slopes--65 percent
 Devada very cobbly loam, 8 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Alyan stony loam, 15 to 50 percent slopes--6 percent
 Inclusion 2: Vanwyper cobbly loam, 15 to 50 percent slopes--4 percent
 Inclusion 3: Goosel gravelly loam, 2 to 8 percent slopes--3 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Plateaus
 Devada--Landform: Plateaus; geomorphic position: summit
 Devada--Landform: Plateaus; geomorphic position: backslope
 Inclusion 1--Landform: Canyons; geomorphic position: backslope; aspect: north
 Inclusion 2--Landform: Canyons; geomorphic position: backslope; aspect: south
 Inclusion 3--Landform: Plateaus; geomorphic position: summit
 Inclusion 4--Landform: Plateaus

Major Component Description

Devada Series

Elevation: 5,500 to 6,100 feet

Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface rock fragments: 2 percent cobbles; 40 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Devada Series

Elevation: 5,500 to 6,100 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Devada: Sandberg bluegrass, Thurber needlegrass, bottlebrush squirreltail, low sagebrush
 Devada: Sandberg bluegrass, Thurber needlegrass, bluegrass, bottlebrush squirreltail, low sagebrush
 Inclusion 1: Idaho fescue, bluebunch wheatgrass, bottlebrush squirreltail, mountain big sagebrush
 Inclusion 2: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 4: None

Ecological Site

Devada: 025XY018NV
 Devada: 025XY022NV
 Inclusion 1: 025XY012NV
 Inclusion 2: 025XY019NV
 Inclusion 3: 025XY019NV
 Inclusion 4: none

676--Devada-Snowmore-Midraw association

Composition

Major Components

Devada cobbly loam, 2 to 8 percent slopes--50 percent
 Snowmore very fine sandy loam, 2 to 4 percent slopes--20 percent
 Midraw gravelly loam, 4 to 8 percent slopes--15 percent

Contrasting Inclusions

- Inclusion 1: Dewar very fine sandy loam, 0 to 2 percent slopes--6 percent
 Inclusion 2: Devada very cobbly loam, 0 to 2 percent slopes--5 percent
 Inclusion 3: Soughe cobbly very fine sandy loam, south, 15 to 30 percent slopes--2 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Plateaus

Devada--Landform: Plateaus; geomorphic position: backslope

Snowmore--Landform: Plateaus; geomorphic position: summit

Midraw--Landform: Plateaus; geomorphic position: shoulder

Inclusion 1--Landform: Fan remnants; geomorphic position: toeslope; position on slope: lower

Inclusion 2--Landform: Drainageways

Inclusion 3--Landform: Plateaus; geomorphic position: backslope; aspect: south

Inclusion 4--Landform: Plateaus

Major Component Description**Devada Series**

Elevation: 5,600 to 6,100 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Snowmore Series

Elevation: 5,600 to 6,100 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Midraw Series

Elevation: 5,600 to 6,100 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Devada: Thurber needlegrass, bluegrass, bottlebrush squirreltail, low sagebrush

Snowmore: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Midraw: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush, bluegrass, bottlebrush squirreltail

Inclusion 1: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Thurber needlegrass, bluegrass, bottlebrush squirreltail, low sagebrush

Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bluegrass, bottlebrush squirreltail

Inclusion 4: None

Ecological Site

Devada: 025XY018NV

Snowmore: 024XY005NV

Midraw: 024XY005NV

Inclusion 1: 024XY005NV

Inclusion 2: 025XY022NV

Inclusion 3: 024XY028NV

Inclusion 4: none

677--Devada-Ninemile-Burrita association**Composition****Major Components**

Devada very gravelly loam, 15 to 50 percent slopes--35 percent

Ninemile cobbly loam, 30 to 50 percent slopes--30 percent

Burrita gravelly loam, moist, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Softscrabble cobbly loam, 30 to 50 percent slopes--5 percent

Inclusion 2: Devada very cobbly loam, 8 to 30 percent slopes--4 percent

Inclusion 3: Zymans gravelly loam, cool, 8 to 30 percent slopes--4 percent

Inclusion 4: Cumulic Endoaquolls, loamy-skeletal, mixed, frigid cobbly loam, drained, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Devada--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: south

Ninemile--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north
 Burrita--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Ridges
 Inclusion 3--Landform: Mountains; geomorphic position: footslope
 Inclusion 4--Landform: Stream terraces

Major Component Description

Devada Series

Elevation: 5,300 to 6,200 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Ninemile Series

Elevation: 5,300 to 6,200 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Burrita Series

Elevation: 5,300 to 6,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Devada: Bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush
 Ninemile: Idaho fescue, bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush
 Burrita: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 1: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 2: Bottlebrush squirreltail, low sagebrush
 Inclusion 3: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 4: Basin wildrye, mountain big sagebrush

Ecological Site

Devada: 023XY031NV
 Ninemile: 023XY017NV
 Burrita: 023XY039NV
 Inclusion 1: 023XY007NV
 Inclusion 2: 025XY022NV
 Inclusion 3: 023XY039NV
 Inclusion 4: 023XY056NV

678--Devada-Rubble land association

Composition

Major Components

Devada cobbly loam, 8 to 30 percent slopes--40 percent
 Devada extremely gravelly loam, 8 to 30 percent slopes--25 percent
 Rubble land fragmental material, 15 to 75 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Zymans cobbly loam, 30 to 50 percent slopes--5 percent
 Inclusion 2: Burrita gravelly loam, warm, 15 to 30 percent slopes--5 percent
 Inclusion 3: Burrita very gravelly loam, south, 30 to 50 percent slopes--5 percent

Map Unit Setting

Landscape position: Hills
 Devada--Landform: Hills; geomorphic position: summit
 Devada--Landform: Hills; geomorphic position: shoulder
 Rubble land--Landform: Hills
 Inclusion 1--Landform: Hills; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Hills; geomorphic position: shoulder
 Inclusion 3--Landform: Hills; geomorphic position: backslope; shape of slope: concave; aspect: south

Major Component Description

Devada Series

Elevation: 5,500 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees

Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Devada Series

Elevation: 5,500 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Extremely gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Rubble land Miscellaneous Area

Elevation: 5,500 to 6,000 feet
Surface layer texture: Fragmental material
Drainage class: Excessively drained

Dominant Present Vegetation

Devada: Thurber needlegrass, bluebunch wheatgrass, bluegrass, low sagebrush
 Devada: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush
 Rubble land: None
 Inclusion 1: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Ecological Site

Devada: 023XY031NV
 Devada: 023XY021NV
 Rubble land: None
 Inclusion 1: 023XY020NV
 Inclusion 2: 024XY035NV
 Inclusion 3: 024XY028NV

680--Soughe-Trunk-Rock outcrop association

Composition

Major Components

Soughe very gravelly loam, dry, 30 to 50 percent slopes--35 percent
 Trunk very cobbly loam, 30 to 50 percent slopes--30 percent
 Rock outcrop--20 percent

Contrasting Inclusions

Inclusion 1: Burrita very cobbly loam, 4 to 15 percent slopes--8 percent
 Inclusion 2: Soughe very gravelly loam, 50 to 75 percent slopes--4 percent
 Inclusion 3: Hoot very gravelly loam, 30 to 50 percent slopes--2 percent
 Inclusion 4: Rodock very gravelly loam, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains
 Soughe--Landform: Mountains; geomorphic position: backslope; aspect: south
 Trunk--Landform: Mountains; geomorphic position: backslope; aspect: north
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; geomorphic position: summit
 Inclusion 2--Landform: Mountains; geomorphic position: backslope
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south
 Inclusion 4--Landform: Drainageways

Major Component Description

Soughe Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Trunk Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 5,000 to 6,000 feet

Dominant Present Vegetation

Soughe: Wyoming big sagebrush, bottlebrush squirreltail, shadscale

Trunk: Sandberg bluegrass, Thurber needlegrass,
Wyoming big sagebrush, bottlebrush squirreltail
Rock outcrop: None
Inclusion 1: Sandberg bluegrass, Wyoming big
sagebrush, bottlebrush squirreltail
Inclusion 2: Wyoming big sagebrush, bottlebrush
squirreltail, shadscale
Inclusion 3: Bottlebrush squirreltail, bud sagebrush,
shadscale
Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Soughe: 024XY020NV
Trunk: 024XY005NV
Rock outcrop: None
Inclusion 1: 024XY005NV
Inclusion 2: 024XY020NV
Inclusion 3: 024XY025NV
Inclusion 4: 025XY003NV

690--Sodhouse-Golconda association

Composition

Major Components

Sodhouse very stony very fine sandy loam, 2 to 8
percent slopes--45 percent
Golconda very fine sandy loam, 2 to 8 percent
slopes--40 percent

Contrasting Inclusions

Inclusion 1: Shabliss stony sandy loam, dry, 2 to 8
percent slopes--7 percent
Inclusion 2: Snapp stony loam, 8 to 15 percent
slopes--5 percent
Inclusion 3: Beoska stony loam, 8 to 15 percent
slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts
Sodhouse--Landform: Fan remnants; geomorphic
position: summit; position on slope: lower
Golconda--Landform: Fan remnants; geomorphic
position: summit; position on slope: upper
Inclusion 1--Landform: Drainageways
Inclusion 2--Landform: Fan remnants; geomorphic
position: backslope; position on slope: upper
Inclusion 3--Landform: Fan remnants; geomorphic
position: backslope; position on slope: lower

Major Component Description

Sodhouse Series

Elevation: 4,300 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees

Frost-free season: About 110 days
Surface rock fragments: 5 percent stones and
boulders; 10 percent cobbles; 10 percent gravel
Surface layer texture: Very stony very fine sandy
loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Golconda Series

Elevation: 4,300 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Sodhouse: Bottlebrush squirreltail, bud sagebrush,
shadscale
Golconda: Bottlebrush squirreltail, bud sagebrush,
shadscale
Inclusion 1: Wyoming big sagebrush, bottlebrush
squirreltail, spiny hopsage
Inclusion 2: Wyoming big sagebrush, bottlebrush
squirreltail, spiny hopsage
Inclusion 3: Bottlebrush squirreltail, bud sagebrush,
shadscale

Ecological Site

Sodhouse: 024XY002NV
Golconda: 024XY002NV
Inclusion 1: 024XY020NV
Inclusion 2: 024XY020NV
Inclusion 3: 024XY002NV

691--Sodhouse-Chiara association

Composition

Major Components

Sodhouse silt loam, 0 to 2 percent slopes--50
percent
Chiara silt loam, 2 to 4 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Dacker, 2 to 4 percent slopes--10
percent
Inclusion 2: Relley silt loam, 0 to 2 percent slopes,
frequently flooded--1 percent
Inclusion 3: Kelk silt loam, 0 to 2 percent slopes--2
percent

Inclusion 4: Raglan silt loam, 0 to 2 percent slopes--
2 percent

Map Unit Setting

Landscape position: Fan piedmonts
Sodhouse--Landform: Fan remnants; geomorphic
position: summit
Chiara--Landform: Fan remnants; geomorphic
position: backslope
Inclusion 1--Landform: Fan remnants; geomorphic
position: summit; position on slope: upper
Inclusion 2--Landform: Fan remnants; position on
slope: lower
Inclusion 3--Landform: Inset fans
Inclusion 4--Landform: Inset fans; position on slope:
lower

Major Component Description

Sodhouse Series

Elevation: 4,800 to 5,600 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Chiara Series

Elevation: 4,800 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Sodhouse: Bottlebrush squirreltail, bud sagebrush,
winterfat
Chiara: Wyoming big sagebrush, bluebunch
wheatgrass, bottlebrush squirreltail
Inclusion 1: Wyoming big sagebrush, bottlebrush
squirreltail
Inclusion 2: Black greasewood, sickle saltbush
Inclusion 3: Sandberg bluegrass, Wyoming big
sagebrush, bottlebrush squirreltail
Inclusion 4: Bottlebrush squirreltail, bud sagebrush,
shadscale

Ecological Site

Sodhouse: 024XY059NV
Chiara: 025XY019NV

Inclusion 1: 025XY019NV
Inclusion 2: 024XY012NV
Inclusion 3: 025XY019NV
Inclusion 4: 024XY002NV

700--Atlow-Gowjai association

Composition

Major Components

Atlow very gravelly loam, 30 to 50 percent slopes--
50 percent
Gowjai gravelly very fine sandy loam, 30 to 50
percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Soughe very gravelly fine sandy loam,
30 to 50 percent slopes--7 percent
Inclusion 2: Trunk very gravelly loam, 30 to 50
percent slopes--6 percent
Inclusion 3: Chiara very fine sandy loam, 15 to 30
percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
Atlow--Landform: Mountains; geomorphic position:
backslope; aspect: south
Gowjai--Landform: Mountains; geomorphic position:
backslope; aspect: north
Inclusion 1--Landform: Mountains; geomorphic
position: backslope; shape of slope: convex
Inclusion 2--Landform: Mountains; geomorphic
position: backslope; position on slope: lower;
aspect: north
Inclusion 3--Landform: Fan remnants; position on
slope: lower

Major Component Description

Atlow Series

Elevation: 4,500 to 6,300 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from
mixed rocks

Gowjai Series

Elevation: 5,200 to 6,300 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface rock fragments: 5 percent cobbles; 20
percent gravel

Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Atlow: Thurber needlegrass, black sagebrush, bluegrass, bottlebrush squirreltail
 Gowjai: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Atlow: 024XY030NV
 Gowjai: 024XY021NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY005NV
 Inclusion 3: 024XY005NV

701--Atlow-Wiskan association

Composition

Major Components

Atlow very gravelly loam, 30 to 50 percent slopes--45 percent
 Wiskan very gravelly loam, 30 to 50 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Mulhop very gravelly loam, 50 to 75 percent slopes--6 percent
 Inclusion 2: Carstump very gravelly loam, 30 to 50 percent slopes--3 percent
 Inclusion 3: Linrose very gravelly loam, 30 to 50 percent slopes--4 percent
 Inclusion 4: Rio King loam, 4 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Atlow--Landform: Mountains; geomorphic position: backslope; aspect: south
 Wiskan--Landform: Mountains; geomorphic position: backslope; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: backslope
 Inclusion 2--Landform: Mountains; geomorphic

position: footslope

Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north
 Inclusion 4--Landform: Stream terraces; position on slope: lower

Major Component Description

Atlow Series

Elevation: 4,900 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 10 percent cobbles; 45 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from mixed rocks

Wiskan Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 1 percent cobbles; 35 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Atlow: Thurber needlegrass, black sagebrush, bluegrass, bottlebrush squirreltail
 Wiskan: Thurber needlegrass, black sagebrush, bluebunch wheatgrass, bluegrass
 Inclusion 1: Utah juniper, black sagebrush
 Inclusion 2: Basin wildrye, big sagebrush, bluebunch wheatgrass
 Inclusion 3: Idaho fescue, black sagebrush
 Inclusion 4: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Atlow: 024XY030NV
 Wiskan: 024XY031NV
 Inclusion 1: 025XY060NV
 Inclusion 2: 025XY014NV
 Inclusion 3: 024XY042NV
 Inclusion 4: 025XY003NV

704--Atlow-Hoot association**Composition****Major Components**

- Atlow very gravelly loam, 30 to 50 percent slopes--45 percent
 Hoot very cobbly loam, 30 to 50 percent slopes--25 percent
 Atlow very gravelly loam, 4 to 15 percent slopes--15 percent

Contrasting Inclusions

- Inclusion 1: Soughe very gravelly loam, dry, 30 to 50 percent slopes--5 percent
 Inclusion 2: Rubble land, 15 to 75 percent slopes--5 percent
 Inclusion 3: Oxcorel very gravelly loam, 4 to 15 percent slopes--3 percent
 Inclusion 4: Carstamp very gravelly loam, 30 to 50 percent slopes--2 percent

Map Unit Setting

- Landscape position:* Mountains
 Atlow--Landform: Mountains; geomorphic position: backslope; aspect: north
 Hoot--Landform: Mountains; geomorphic position: backslope; aspect: south
 Atlow--Landform: Mountains; geomorphic position: summit
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: south
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Fan remnants; position on slope: lower
 Inclusion 4--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north

Major Component Description**Atlow Series**

- Elevation:* 4,800 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from mixed rocks

Hoot Series

- Elevation:* 4,800 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees

- Frost-free season:* About 110 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Atlow Series

- Elevation:* 4,800 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 55 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from mixed rocks

Dominant Present Vegetation

- Atlow: Thurber needlegrass, black sagebrush, bluegrass, bottlebrush squirreltail
 Hoot: Bottlebrush squirreltail, bud sagebrush, shadscale
 Atlow: Thurber needlegrass, black sagebrush, bottlebrush squirreltail, bud sagebrush
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, shadscale
 Inclusion 2: None
 Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 4: Basin wildrye, big sagebrush, bluebunch wheatgrass

Ecological Site

- Atlow: 024XY030NV
 Hoot: 024XY025NV
 Atlow: 024XY030NV
 Inclusion 1: 024XY020NV
 Inclusion 2: none
 Inclusion 3: 024XY002NV
 Inclusion 4: 025XY014NV

710--Xipe silt loam**Composition****Major Components**

- Xipe silt loam, drained, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

- Inclusion 1: Clementine silt loam, slightly saline, 0 to 2 percent slopes--5 percent

Inclusion 2: Xipe gravelly loam, drained, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Xipe--Landform: Stream terraces

Inclusion 1--Landform: Flood plains

Inclusion 2--Landform: Levees (stream)

Major Component Description

Xipe Series

Elevation: 4,400 to 4,900 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Silt loam

Drainage class: Very poorly drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Xipe: Basin big sagebrush, basin wildrye

Inclusion 1: Basin wildrye, creeping wildrye

Inclusion 2: Basin big sagebrush, basin wildrye

Ecological Site

Xipe: 025XY003NV

Inclusion 1: 025XY001NV

Inclusion 2: 025XY003NV

720--Dewar-Sodhouse association

Composition

Major Components

Dewar very cobbly silt loam, 4 to 8 percent slopes--55 percent

Sodhouse cobbly silt loam, 2 to 4 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Relley silt loam, 0 to 2 percent slopes, frequently flooded--3 percent

Inclusion 2: Dacker very cobbly very fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 3: Kelk very fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Dewar--Landform: Fan remnants; geomorphic position: backslope

Sodhouse--Landform: Fan remnants; geomorphic position: summit

Inclusion 1--Landform: Fan skirts; position on slope: lower

Inclusion 2--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Inclusion 3--Landform: Inset fans

Inclusion 4--Landform: Pediments

Major Component Description

Dewar Series

Elevation: 4,500 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface rock fragments: 15 percent cobbles; 20 percent gravel

Surface layer texture: Very cobbly silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Sodhouse Series

Elevation: 4,500 to 5,500 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Cobbly silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dewar: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Sodhouse: Indian ricegrass, bottlebrush squirreltail, winterfat

Inclusion 1: Alkali sacaton, black greasewood, bottlebrush squirreltail, sickle saltbush

Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 4: None

Ecological Site

Dewar: 024XY020NV

Sodhouse: 024XY059NV

Inclusion 1: 024XY012NV

Inclusion 2: 025XY019NV

Inclusion 3: 025XY019NV

Inclusion 4: none

721--Dewar-Laped-Orovada association**Composition****Major Components**

Dewar gravelly loam, 2 to 8 percent slopes--35 percent
 Laped very gravelly loam, 4 to 15 percent slopes--25 percent
 Orovada very fine sandy loam, 2 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Burrita very gravelly loam, 15 to 30 percent slopes--7 percent
 Inclusion 2: Zevadez very gravelly loam, 4 to 15 percent slopes--4 percent
 Inclusion 3: McConnel very gravelly loam, 4 to 15 percent slopes--4 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Dewar--Landform: Fan remnants
 Laped--Landform: Hills; geomorphic position: summit
 Orovada--Landform: Inset fans
 Inclusion 1--Landform: Hills; geomorphic position: backslope; aspect: north
 Inclusion 2--Landform: Hills; geomorphic position: toeslope
 Inclusion 3--Landform: Fan remnants; geomorphic position: backslope

Major Component Description**Dewar Series**

Elevation: 5,000 to 5,300 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Laped Series

Elevation: 5,000 to 5,300 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Orovada Series

Elevation: 5,000 to 5,300 feet
Precipitation: About 9 inches

Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dewar: Wyoming big sagebrush, bottlebrush squirreltail
 Laped: Bottlebrush squirreltail, bud sagebrush, shadscale
 Orovada: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Dewar: 024XY005NV
 Laped: 024XY002NV
 Orovada: 024XY020NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY005NV
 Inclusion 3: 024XY020NV

722--Dewar-Flue-Burrita association**Composition****Major Components**

Dewar gravelly very fine sandy loam, 2 to 8 percent slopes--35 percent
 Flue very gravelly very fine sandy loam, 15 to 30 percent slopes--25 percent
 Burrita gravelly loam, 4 to 15 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Soughe very gravelly loam, south, 30 to 50 percent slopes--8 percent
 Inclusion 2: Vanwyper cobbly loam, 30 to 50 percent slopes--2 percent
 Inclusion 3: Rebel very fine sandy loam, 0 to 2 percent slopes, occasionally flooded--3 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Plateaus
 Dewar--Landform: Plateaus; geomorphic position: summit

Flue--Landform: Plateaus; geomorphic position: footslope

Burrita--Landform: Plateaus; geomorphic position: summit

Inclusion 1--Landform: Plateaus; geomorphic position: backslope; aspect: south

Inclusion 2--Landform: Plateaus; geomorphic position: backslope; aspect: north

Inclusion 3--Landform: Drainageways

Inclusion 4--Landform: Plateaus

Major Component Description

Dewar Series

Elevation: 4,800 to 5,700 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface rock fragments: 20 percent gravel

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Flue Series

Elevation: 4,800 to 5,700 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Burrita Series

Elevation: 4,800 to 5,700 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Dewar: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail

Flue: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 1: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail

Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Inclusion 4: None

Ecological Site

Dewar: 025XY019NV

Flue: 024XY005NV

Burrita: 024XY005NV

Inclusion 1: 024XY028NV

Inclusion 2: 025XY019NV

Inclusion 3: 024XY006NV

Inclusion 4: none

724--Dewar-Soughe-Hoot association

Composition

Major Components

Dewar cobbly silt loam, 4 to 15 percent slopes--55 percent

Soughe very cobbly loam, dry, 15 to 50 percent slopes--20 percent

Hoot very stony loam, 15 to 50 percent slopes--10 percent

Contrasting Inclusions

Inclusion 1: Dewar gravelly very fine sandy loam, 2 to 8 percent slopes--6 percent

Inclusion 2: Rock outcrop--4 percent

Inclusion 3: Puett gravelly loam, 15 to 50 percent slopes--3 percent

Inclusion 4: Knott cobbly silt loam, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus

Dewar--Landform: Plateaus; geomorphic position: summit; aspect: south

Soughe--Landform: Plateaus; geomorphic position: backslope; aspect: north

Hoot--Landform: Plateaus; geomorphic position: backslope; aspect: south

Inclusion 1--Landform: Plateaus; geomorphic position: summit; aspect: north

Inclusion 2--Landform: Plateaus

Inclusion 3--Landform: Plateaus; geomorphic position: backslope

Inclusion 4--Landform: Fan remnants; position on slope: lower; aspect: south

Major Component Description**Dewar Series**

Elevation: 4,600 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface rock fragments: 10 percent cobbles; 10 percent gravel
Surface layer texture: Cobbly silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Soughe Series

Elevation: 4,600 to 5,200 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Hoot Series

Elevation: 4,600 to 5,200 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Dewar: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Soughe: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Hoot: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: None
 Inclusion 3: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 4: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Dewar: 024XY020NV
 Soughe: 024XY020NV
 Hoot: 024XY025NV
 Inclusion 1: 024XY005NV
 Inclusion 2: none

Inclusion 3: 024XY045NV

Inclusion 4: 024XY002NV

726--Dewar association**Composition****Major Components**

Dewar gravelly silt loam, 2 to 8 percent slopes--60 percent

Dewar gravelly very fine sandy loam, 4 to 15 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Golconda gravelly very fine sandy loam, 4 to 15 percent slopes--5 percent

Inclusion 2: Soughe very gravelly silt loam, dry, 8 to 30 percent slopes--5 percent

Inclusion 3: Connel very gravelly silt loam, 2 to 8 percent slopes, rarely flooded--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Dewar--Landform: Fan remnants; geomorphic position: summit; aspect: south

Dewar--Landform: Fan remnants; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Fan remnants; geomorphic position: backslope; position on slope: lower; aspect: south

Inclusion 2--Landform: Pediments

Inclusion 3--Landform: Inset fans

Major Component Description**Dewar Series**

Elevation: 4,500 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dewar Series

Elevation: 4,500 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface rock fragments: 15 percent gravel
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dewar: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Dewar: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 3: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Dewar: 024XY020NV

Dewar: 024XY005NV

Inclusion 1: 024XY002NV

Inclusion 2: 024XY020NV

Inclusion 3: 024XY005NV

727--Dewar-Midraw association***Composition*****Major Components**

Dewar cobbly silt loam, 2 to 8 percent slopes--35 percent

Midraw cobbly silt loam, 2 to 4 percent slopes--30 percent

Dewar very fine sandy loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Wieland cobbly loam, 0 to 4 percent slopes--10 percent

Inclusion 2: Sodhouse gravelly fine sandy loam, 2 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Plateaus

Dewar--Landform: Plateaus; geomorphic position: backslope; aspect: south

Midraw--Landform: Plateaus; geomorphic position: summit

Dewar--Landform: Plateaus; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Plateaus; geomorphic position: summit; shape of slope: concave

Inclusion 2--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Major Component Description**Dewar Series**

Elevation: 4,500 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Cobbly silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Midraw Series

Elevation: 4,500 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Cobbly silt loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dewar Series

Elevation: 4,500 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dewar: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Midraw: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Dewar: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Dewar: 024XY020NV

Midraw: 024XY020NV

Dewar: 024XY005NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY002NV

728--Dewar-Midraw-Devada association***Composition*****Major Components**

Dewar silt loam, 2 to 8 percent slopes--40 percent

Midraw silt loam, 2 to 8 percent slopes--30 percent

Devada cobbly loam, 2 to 8 percent slopes--15 percent

Contrasting Inclusions

- Inclusion 1: Dewar gravelly loam, 2 to 8 percent slopes--10 percent
 Inclusion 2: Kingsriver loam, drained, 0 to 2 percent slopes--2 percent
 Inclusion 3: Devada extremely cobbly loam, 2 to 4 percent slopes--2 percent
 Inclusion 4: Knott very fine sandy loam, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Plateaus

Dewar--Landform: Plateaus; geomorphic position: backslope; shape of slope: plane; aspect: south

Midraw--Landform: Plateaus; geomorphic position: summit

Devada--Landform: Plateaus; geomorphic position: backslope; shape of slope: convex

Inclusion 1--Landform: Plateaus; geomorphic position: backslope; shape of slope: plane; aspect: north

Inclusion 2--Landform: Stream terraces

Inclusion 3--Landform: Drainageways; position on slope: upper; shape of slope: concave

Inclusion 4--Landform: Plateaus; geomorphic position: backslope; position on slope: lower; aspect: south

Major Component Description

Dewar Series

Elevation: 4,500 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface rock fragments: 5 percent cobbles; 5 percent gravel

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Midraw Series

Elevation: 4,500 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Devada Series

Elevation: 4,500 to 5,600 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Dewar: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Midraw: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Devada: Thurber needlegrass, bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush

Inclusion 1: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Basin big sagebrush, basin wildrye

Inclusion 3: Sandberg bluegrass, low sagebrush

Inclusion 4: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Dewar: 024XY020NV

Midraw: 024XY020NV

Devada: 025XY018NV

Inclusion 1: 024XY005NV

Inclusion 2: 025XY003NV

Inclusion 3: 025XY022NV

Inclusion 4: 024XY002NV

729--Dewar-Boger association

Composition

Major Components

Dewar cobbly silt loam, 2 to 4 percent slopes--45 percent

Boger cobbly silt loam, 0 to 2 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Knott very fine sandy loam, 0 to 4 percent slopes--5 percent

Inclusion 2: Devada extremely cobbly loam, 0 to 2 percent slopes--5 percent

Inclusion 3: Kingsriver loam, drained, 0 to 2 percent slopes--3 percent

Inclusion 4: Dewar very fine sandy loam, 0 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Dewar--Landform: Plateaus; geomorphic position: backslope
 Boger--Landform: Plateaus; geomorphic position: summit
 Inclusion 1--Landform: Plateaus; geomorphic position: summit; position on slope: lower; shape of slope: convex
 Inclusion 2--Landform: Plateaus
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north

Major Component Description**Dewar Series**

Elevation: 4,500 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Cobbly silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Boger Series

Elevation: 4,500 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 110 days
Surface layer texture: Cobbly silt loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Dewar: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Boger: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: Sandberg bluegrass, low sagebrush
 Inclusion 3: Basin big sagebrush, basin wildrye
 Inclusion 4: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Dewar: 024XY020NV
 Boger: 024XY020NV
 Inclusion 1: 024XY002NV

Inclusion 2: 025XY022NV
 Inclusion 3: 025XY003NV
 Inclusion 4: 024XY005NV

732--Kelk association**Composition****Major Components**

Kelk silt loam, saline, 0 to 2 percent slopes--65 percent
 Kelk very fine sandy loam, 0 to 2 percent slopes, occasionally flooded--20 percent

Contrasting Inclusions

Inclusion 1: Broyles very fine sandy loam, moderately saline, 2 to 4 percent slopes--4 percent
 Inclusion 2: Needle Peak silt loam, 0 to 2 percent slopes--3 percent
 Inclusion 3: Orovada very fine sandy loam, 0 to 2 percent slopes--8 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Kelk--Landform: Fan remnants; position on slope: upper
 Kelk--Landform: Inset fans
 Inclusion 1--Landform: Fan skirts; position on slope: lower
 Inclusion 2--Landform: Drainageways; position on slope: lower
 Inclusion 3--Landform: Fan remnants; position on slope: upper

Major Component Description**Kelk Series**

Elevation: 4,200 to 4,400 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Kelk Series

Elevation: 4,200 to 4,400 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Kelk: Basin wildrye, big sagebrush, black greasewood
 Kelk: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale
 Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Kelk: 024XY022NV
 Kelk: 024XY006NV
 Inclusion 1: 024XY003NV
 Inclusion 2: 024XY006NV
 Inclusion 3: 024XY020NV

733--Kelk-Enko complex, 0 to 2 percent slopes

Composition

Major Components

Kelk silt loam, 0 to 2 percent slopes, occasionally flooded--65 percent
 Enko loamy very fine sand, 0 to 2 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Goldrun loamy fine sand, 4 to 15 percent slopes--2 percent
 Inclusion 2: Enko fine sandy loam, 2 to 8 percent slopes--8 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Kelk--Landform: Inset fans
 Enko--Landform: Inset fans
 Inclusion 1--Landform: Dunes
 Inclusion 2--Landform: Fan remnants; position on slope: upper

Major Component Description

Kelk Series

Elevation: 4,300 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Enko Series

Elevation: 4,300 to 4,600 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy very fine sand
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Kelk: Basin big sagebrush, basin wildrye
 Enko: Indian ricegrass, basin big sagebrush, needleandthread
 Inclusion 1: Indian ricegrass, basin big sagebrush
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Kelk: 024XY006NV
 Enko: 024XY017NV
 Inclusion 1: 024XY001NV
 Inclusion 2: 024XY005NV

734--Kelk silt loam, occasionally flooded, 0 to 2 percent slopes

Composition

Major Components

Kelk silt loam, 0 to 2 percent slopes, occasionally flooded--90 percent

Contrasting Inclusions

Inclusion 1: Snapp very fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Enko loamy very fine sand, 0 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Kelk--Landform: Inset fans
 Inclusion 1--Landform: Fan remnants; position on slope: upper
 Inclusion 2--Landform: Inset fans; position on slope: upper

Major Component Description

Kelk Series

Elevation: 4,300 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees

Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Kelk: Basin big sagebrush, basin wildrye
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Indian ricegrass, basin big sagebrush

Ecological Site

Kelk: 024XY006NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY017NV

736--Kelk-Kortty association

Composition

Major Components

Kelk very fine sandy loam, 0 to 2 percent slopes--45 percent
 Kortty silt loam, 0 to 2 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Dacker very fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Chiara very fine sandy loam, 0 to 2 percent slopes--8 percent
 Inclusion 3: Raglan silt loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Kelk--Landform: Inset fans
 Kortty--Landform: Fan remnants; geomorphic position: summit
 Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Inclusion 2--Landform: Fan remnants; geomorphic position: shoulder; position on slope: upper
 Inclusion 3--Landform: Inset fans; position on slope: lower

Major Component Description

Kelk Series

Elevation: 4,800 to 5,400 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam

Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Kortty Series

Elevation: 4,800 to 5,400 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Kelk: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Kortty: Sandberg bluegrass, bottlebrush squirreltail, bottlebrush squirreltail, shadscale
 Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: Sandberg bluegrass, bottlebrush squirreltail, shadscale

Ecological Site

Kelk: 025XY019NV
 Kortty: 024XY002NV
 Inclusion 1: 025XY019NV
 Inclusion 2: 025XY019NV
 Inclusion 3: 024XY002NV

740--Gowjai-Vanwyper-Sumine association

Composition

Major Components

Gowjai silt loam, 15 to 50 percent slopes--50 percent
 Vanwyper very cobbly loam, 15 to 50 percent slopes--20 percent
 Sumine very cobbly loam, 30 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Burrita gravelly loam, warm, 8 to 15 percent slopes--5 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Kelk very fine sandy loam, 4 to 8 percent slopes--3 percent
 Inclusion 4: Puffer very cobbly loam, 8 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Gowjai--Landform: Mountains; geomorphic position: backslope; aspect: north

Vanwyper--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south

Sumine--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: south

Inclusion 1--Landform: Mountains; geomorphic position: summit

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Mountains; geomorphic position: toeslope

Inclusion 4--Landform: Mountains; geomorphic position: shoulder

Major Component Description**Gowjai Series**

Elevation: 5,000 to 6,500 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Vanwyper Series

Elevation: 5,000 to 6,500 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Sumine Series

Elevation: 5,500 to 6,500 feet

Precipitation: About 12 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Gowjai: Idaho fescue, basin wildrye, big sagebrush, bluebunch wheatgrass

Vanwyper: Wyoming big sagebrush, basin wildrye, bluebunch wheatgrass

Sumine: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Inclusion 1: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 2: None

Inclusion 3: Wyoming big sagebrush, basin wildrye, bluebunch wheatgrass

Inclusion 4: Black sagebrush, bluegrass

Ecological Site

Gowjai: 025XY014NV

Vanwyper: 024XY028NV

Sumine: 024XY029NV

Inclusion 1: 024XY035NV

Inclusion 2: none

Inclusion 3: 025XY019NV

Inclusion 4: 024XY030NV

750--Snapp-Oxcorel association**Composition****Major Components**

Snapp very fine sandy loam, 2 to 8 percent slopes--50 percent

Oxcorel gravelly very fine sandy loam, 2 to 8 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Connel very gravelly loam, 2 to 8 percent slopes--5 percent

Inclusion 2: Rebel very fine sandy loam, 0 to 4 percent slopes, occasionally flooded--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Snapp--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Oxcorel--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: lower; shape of slope: concave

Inclusion 2--Landform: Inset fans

Major Component Description**Snapp Series**

Elevation: 4,800 to 5,700 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Oxcorel Series*Elevation:* 4,800 to 5,700 feet*Precipitation:* About 7 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Gravelly very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash***Dominant Present Vegetation***

Snapp: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Oxcorel: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Basin big sagebrush, basin wildrye

Ecological Site

Snapp: 024XY005NV

Oxcorel: 024XY002NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY006NV

751--Snapp-Sodhouse association***Composition*****Major Components**

Snapp very fine sandy loam, 2 to 8 percent slopes--60 percent

Sodhouse very fine sandy loam, 2 to 8 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Connel gravelly very fine sandy loam, 0 to 4 percent slopes--10 percent

Map Unit Setting*Landscape position:* Fan piedmonts

Snapp--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Sodhouse--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Inclusion 1--Landform: Inset fans

Major Component Description**Snapp Series***Elevation:* 4,800 to 5,500 feet*Precipitation:* About 9 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks**Sodhouse Series***Elevation:* 4,800 to 5,500 feet*Precipitation:* About 7 inches*Air temperature:* About 49 degrees*Frost-free season:* About 110 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash***Dominant Present Vegetation***

Snapp: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Sodhouse: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Snapp: 024XY005NV

Sodhouse: 024XY002NV

Inclusion 1: 024XY020NV

752--Snapp-Orovada association***Composition*****Major Components**

Snapp very fine sandy loam, 2 to 8 percent slopes--50 percent

Orovada very fine sandy loam, 2 to 8 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Rebel gravelly fine sandy loam, 2 to 8 percent slopes, occasionally flooded--10 percent

Map Unit Setting*Landscape position:* Fan piedmonts

Snapp--Landform: Fan remnants; geomorphic position: summit

Orovada--Landform: Inset fans

Inclusion 1--Landform: Drainageways

Major Component Description**Snapp Series***Elevation:* 5,000 to 5,800 feet*Precipitation:* About 9 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Well drained

Dominant parent material: Alluvium derived from mixed rocks

Orovada Series

Elevation: 5,000 to 5,800 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Snapp: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Orovada: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Basin big sagebrush, basin wildrye

Ecological Site

Snapp: 024XY005NV

Orovada: 024XY020NV

Inclusion 1: 024XY006NV

753--Snapp-Dugchip-Connel association

Composition

Major Components

Snapp gravelly silt loam, 2 to 8 percent slopes--40 percent

Dugchip very fine sandy loam, 2 to 4 percent slopes--30 percent

Connel very fine sandy loam, 0 to 2 percent slopes, rarely flooded--15 percent

Contrasting Inclusions

Inclusion 1: Golconda gravelly very fine sandy loam, 2 to 4 percent slopes--7 percent

Inclusion 2: Orovada very fine sandy loam, 0 to 2 percent slopes--5 percent

Inclusion 3: Rio King very fine sandy loam, 0 to 2 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts

Snapp--Landform: Fan remnants; geomorphic position: backslope

Dugchip--Landform: Fan remnants; geomorphic position: summit

Connel--Landform: Inset fans

Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Inclusion 2--Landform: Inset fans; position on slope: lower

Inclusion 3--Landform: Drainageways

Major Component Description

Snapp Series

Elevation: 4,700 to 5,800 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Dugchip Series

Elevation: 4,700 to 5,800 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Connel Series

Elevation: 4,700 to 5,800 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Snapp: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Dugchip: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Connel: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Snapp: 024XY020NV

Dugchip: 024XY005NV

Connel: 024XY005NV

Inclusion 1: 024XY002NV

Inclusion 2: 024XY020NV

Inclusion 3: 025XY003NV

754--Snapp-Puett association

Composition

Major Components

Snapp very fine sandy loam, 2 to 15 percent slopes--60 percent

Puett very gravelly loam, 15 to 50 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Snapp gravelly very fine sandy loam, 4 to 15 percent slopes--5 percent

Inclusion 2: Burrita gravelly loam, dry, 30 to 50 percent slopes--5 percent

Inclusion 3: Clementine loam, drained, 0 to 2 percent slopes--3 percent

Inclusion 4: Hunnton very fine sandy loam, 8 to 30 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Snapp--Landform: Pediments; geomorphic position: summit

Puett--Landform: Pediments; geomorphic position: backslope

Inclusion 1--Landform: Pediments; geomorphic position: backslope; position on slope: lower

Inclusion 2--Landform: Pediments

Inclusion 3--Landform: Drainageways

Inclusion 4--Landform: Fan remnants; geomorphic position: summit; position on slope: upper; aspect: north

Major Component Description

Snapp Series

Elevation: 4,800 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Puett Series

Elevation: 4,800 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from tuffaceous rocks

Dominant Present Vegetation

Snapp: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Puett: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 3: Basin big sagebrush, basin wildrye

Inclusion 4: Wyoming big sagebrush, bluebunch wheatgrass

Ecological Site

Snapp: 024XY005NV

Puett: 024XY045NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY020NV

Inclusion 3: 025XY003NV

Inclusion 4: 025XY019NV

755--Snapp-Connel association

Composition

Major Components

Snapp silt loam, 2 to 8 percent slopes--60 percent
Connel very fine sandy loam, 2 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Snapp very fine sandy loam, 2 to 8 percent slopes--10 percent

Inclusion 2: Orovada very fine sandy loam, 2 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Snapp--Landform: Fan remnants; geomorphic position: summit

Connel--Landform: Inset fans

Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Inclusion 2--Landform: Inset fans; position on slope: lower

Major Component Description

Snapp Series

Elevation: 4,600 to 5,200 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Connel Series

Elevation: 4,600 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Snapp: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Connel: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Snapp: 024XY020NV
 Connel: 024XY005NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY020NV

756--Snapp-McConnel-Adelaide association

Composition

Major Components

Snapp very fine sandy loam, 2 to 8 percent slopes--40 percent
 McConnel fine sandy loam, moist, 2 to 8 percent slopes--25 percent
 Adelaide silt loam, 2 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Rodock loam, 2 to 8 percent slopes--5 percent
 Inclusion 2: Zevadez gravelly loam, moist, 8 to 15 percent slopes--3 percent
 Inclusion 3: Orovada very fine sandy loam, moist, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Snapp--Landform: Fan remnants; position on slope: upper

McConnel--Landform: Inset fans
 Adelaide--Landform: Fan remnants; position on slope: lower
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Fan remnants; position on slope: upper
 Inclusion 3--Landform: Inset fans; position on slope: upper

Major Component Description

Snapp Series

Elevation: 4,400 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

McConnel Series

Elevation: 4,400 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 25 percent gravel
Surface layer texture: Fine sandy loam
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Adelaide Series

Elevation: 4,400 to 4,800 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Snapp: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 McConnel: Wyoming big sagebrush, bottlebrush squirreltail
 Adelaide: Sandberg bluegrass, Wyoming big sagebrush, spiny hopsage
 Inclusion 1: Basin wildrye, big sagebrush
 Inclusion 2: Basin wildrye, big sagebrush, bluebunch wheatgrass
 Inclusion 3: Sandberg bluegrass, Wyoming big sagebrush

Ecological Site

Snapp: 024XY005NV
 McConnel: 024XY005NV
 Adelaide: 024XY020NV
 Inclusion 1: 024XY013NV
 Inclusion 2: 024XY013NV
 Inclusion 3: 024XY005NV

760--Piline complex**Composition****Major Components**

Piline silty clay loam, 0 to 2 percent slopes--55 percent
 Piline silty clay loam, 0 to 2 percent slopes, ponded--30 percent

Contrasting Inclusions

Inclusion 1: Aeric Fluvaquents, fine, montmorillonitic, nonacid, mesic silt loam, 0 to 2 percent slopes--10 percent
 Inclusion 2: Aquic Torrifluvents, fine, montmorillonitic, nonacid, mesic silt loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Piline--Landform: Lake plains
 Piline--Landform: Lake plains; shape of slope: concave
 Inclusion 1--Landform: Lake plains
 Inclusion 2--Landform: Stream terraces; position on slope: upper

Major Component Description**Piline Series**

Elevation: 5,400 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Silty clay loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Piline Series

Elevation: 5,400 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Silty clay loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Piline: Creeping wildrye, povertyweed
 Piline: Nevada bluegrass, mat muhly
 Inclusion 1: Nevada bluegrass, mat muhly
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Piline: 025XY069NV
 Piline: 025XY049NV
 Inclusion 1: 025XY048NV
 Inclusion 2: 025XY019NV

761--Piline silty clay**Composition****Major Components**

Piline silty clay, 0 to 2 percent slopes, ponded--90 percent

Contrasting Inclusions

Inclusion 1: Rio King very fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Wieland very fine sandy loam, 2 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Piline--Landform: Lake plains
 Inclusion 1--Landform: Lake plains; shape of slope: concave
 Inclusion 2--Landform: Fan remnants; position on slope: upper

Major Component Description**Piline Series**

Elevation: 5,500 to 5,700 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Silty clay
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Piline: Mat muhly
 Inclusion 1: Basin big sagebrush, basin wildrye
 Inclusion 2: Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail

Ecological Site

Piline: 025XY048NV
 Inclusion 1: 025XY003NV

Inclusion 2: 025XY019NV

772--Broyles-Orovada association***Composition*****Major Components**

Broyles very fine sandy loam, 2 to 8 percent slopes--70 percent

Orovada very fine sandy loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Rebel loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Broyles very fine sandy loam, slightly saline, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Broyles--Landform: Fan remnants

Orovada--Landform: Inset fans

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Fan remnants; position on slope: lower

Major Component Description**Broyles Series**

Elevation: 4,200 to 4,400 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Orovada Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Broyles: Bottlebrush squirreltail, bud sagebrush, shadscale

Orovada: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Black greasewood, shadscale

Ecological Site

Broyles: 024XY002NV

Orovada: 024XY020NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY003NV

773--Broyles very fine sandy loam, moderately saline, 0 to 2 percent slopes***Composition*****Major Components**

Broyles very fine sandy loam, moderately saline, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Orovada very fine sandy loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Valmy very fine sandy loam, 0 to 2 percent slopes--3 percent

Inclusion 3: Bubus silt loam, 0 to 2 percent slopes, ponded--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Broyles--Landform: Fan skirts

Inclusion 1--Landform: Drainageways; position on slope: upper

Inclusion 2--Landform: Drainageways; position on slope: lower

Inclusion 3--Landform: Alluvial flats; position on slope: lower

Major Component Description**Broyles Series**

Elevation: 4,300 to 4,700 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Broyles: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 3: Black greasewood, seepweed

Ecological Site

Broyles: 024XY003NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY022NV
 Inclusion 3: 024XY011NV

774--Broyles very fine sandy loam, 0 to 2 percent slopes**Composition****Major Components**

Broyles very fine sandy loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Blackhawk very fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Bubus very fine sandy loam, moderately saline, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Broyles--Landform: Fan skirts
 Inclusion 1--Landform: Fan remnants; geomorphic position: summit
 Inclusion 2--Landform: Fan skirts; position on slope: lower

Major Component Description**Broyles Series**

Elevation: 4,300 to 4,800 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Broyles: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Broyles: 024XY002NV
 Inclusion 1: 024XY002NV
 Inclusion 2: 024XY003NV

775--Broyles-Bubus-Goldrun association**Composition****Major Components**

Broyles fine sandy loam, 0 to 2 percent slopes--40 percent
 Bubus very fine sandy loam, 0 to 2 percent slopes--40 percent
 Goldrun loamy sand, slightly saline, 2 to 4 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Bubus very fine sandy loam, 0 to 2 percent slopes, ponded--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Broyles--Landform: Fan remnants
 Bubus--Landform: Inset fans
 Goldrun--Landform: Dunes
 Inclusion 1--Landform: Alluvial flats; position on slope: lower

Major Component Description**Broyles Series**

Elevation: 4,300 to 4,700 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Bubus Series

Elevation: 4,300 to 4,700 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Goldrun Series

Elevation: 4,300 to 4,700 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Loamy sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Dominant Present Vegetation

Broyles: Bottlebrush squirreltail, bud sagebrush, shadscale
 Bubus: Black greasewood, bottlebrush squirreltail, shadscale
 Goldrun: Indian ricegrass, black greasewood
 Inclusion 1: Black greasewood, seepweed

Ecological Site

Broyles: 024XY002NV
 Bubus: 024XY003NV
 Goldrun: 024XY066NV
 Inclusion 1: 024XY011NV

780--Dacker-Chiara association***Composition*****Major Components**

Dacker very fine sandy loam, 2 to 4 percent slopes--50 percent
 Chiara very fine sandy loam, 0 to 2 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Kelk very fine sandy loam, 0 to 2 percent slopes--9 percent
 Inclusion 2: Connel very fine sandy loam, 0 to 2 percent slopes, rarely flooded--6 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Dacker--Landform: Fan remnants; geomorphic position: backslope
 Chiara--Landform: Fan remnants; geomorphic position: summit
 Inclusion 1--Landform: Inset fans
 Inclusion 2--Landform: Drainageways

Major Component Description**Dacker Series**

Elevation: 4,900 to 5,700 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Chiara Series

Elevation: 4,900 to 5,700 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dacker: Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Chiara: Sandberg bluegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Dacker: 025XY019NV
 Chiara: 025XY019NV
 Inclusion 1: 025XY019NV
 Inclusion 2: 025XY019NV

781--Dacker-Bilbo association***Composition*****Major Components**

Dacker silt loam, 2 to 8 percent slopes--50 percent
 Bilbo gravelly loam, 8 to 30 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Gowjai gravelly loam, 2 to 15 percent slopes--7 percent
 Inclusion 2: Clementine silt loam, drained, 0 to 2 percent slopes--3 percent
 Inclusion 3: Puett gravelly sandy loam, 8 to 30 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Dacker--Landform: Fan remnants; geomorphic position: summit
 Bilbo--Landform: Fan remnants; geomorphic position: backslope; aspect: south
 Inclusion 1--Landform: Fan remnants; geomorphic position: backslope; aspect: north
 Inclusion 2--Landform: Drainageways
 Inclusion 3--Landform: Fan remnants; geomorphic position: backslope; aspect: south

Major Component Description**Dacker Series**

Elevation: 5,400 to 5,900 feet
Precipitation: About 9 inches

Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Bilbo Series

Elevation: 5,400 to 5,900 feet
Precipitation: About 9 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface rock fragments: 5 percent cobbles; 5 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Dacker: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Bilbo: Wyoming big sagebrush, basin wildrye, bluebunch wheatgrass
 Inclusion 1: Basin wildrye, big sagebrush, bluebunch wheatgrass
 Inclusion 2: Basin big sagebrush, basin wildrye
 Inclusion 3: Indian ricegrass, Wyoming big sagebrush, spiny hopsage

Ecological Site

Dacker: 025XY019NV
 Bilbo: 025XY015NV
 Inclusion 1: 025XY014NV
 Inclusion 2: 025XY003NV
 Inclusion 3: 024XY045NV

782--Dacker-Devada-Snowmore association

Composition

Major Components

Dacker very fine sandy loam, 0 to 4 percent slopes--50 percent
 Devada cobbly very fine sandy loam, 4 to 15 percent slopes--25 percent
 Snowmore very fine sandy loam, 8 to 30 percent slopes--10 percent

Contrasting Inclusions

Inclusion 1: Carstump loam, 15 to 30 percent slopes--5 percent
 Inclusion 2: Kingsriver loam, drained, 0 to 2 percent

slopes--5 percent
 Inclusion 3: Soughe very gravelly loam, 15 to 30 percent slopes--3 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Plateaus
 Dacker--Landform: Plateaus; geomorphic position: summit
 Devada--Landform: Plateaus; geomorphic position: backslope
 Snowmore--Landform: Plateaus; geomorphic position: shoulder
 Inclusion 1--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Stream terraces
 Inclusion 3--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: south
 Inclusion 4--Landform: Plateaus

Major Component Description

Dacker Series

Elevation: 5,700 to 5,900 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Devada Series

Elevation: 5,700 to 5,900 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Snowmore Series

Elevation: 5,700 to 5,900 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Dacker: Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Devada: Sandberg bluegrass, Webber ricegrass, low sagebrush
 Snowmore: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Inclusion 1: Thurber needlegrass, basin big sagebrush, bluebunch wheatgrass
 Inclusion 2: Basin big sagebrush, basin wildrye
 Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 4: None

Ecological Site

Dacker: 025XY019NV
 Devada: 025XY018NV
 Snowmore: 025XY019NV
 Inclusion 1: 025XY014NV
 Inclusion 2: 025XY003NV
 Inclusion 3: 024XY005NV
 Inclusion 4: none

790--Rio King loam***Composition*****Major Components**

Rio King loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Kingsriver loam, drained, 0 to 2 percent slopes--5 percent
 Inclusion 2: Clementine silt loam, cool, 0 to 2 percent slopes--3 percent
 Inclusion 3: Rio King loam, slightly saline, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Rio King--Landform: Stream terraces
 Inclusion 1--Landform: Flood plains
 Inclusion 2--Landform: Stream terraces
 Inclusion 3--Landform: Stream terraces; position on slope: upper

Major Component Description**Rio King Series**

Elevation: 4,200 to 4,500 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Loam

Drainage class: Moderately well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Rio King: Basin big sagebrush, basin wildrye, bottlebrush squirreltail
 Inclusion 1: Basin big sagebrush, basin wildrye
 Inclusion 2: Nevada bluegrass, rose, tufted hairgrass, willow
 Inclusion 3: Basin big sagebrush, basin wildrye, bottlebrush squirreltail

Ecological Site

Rio King: 025XY003NV
 Inclusion 1: 025XY003NV
 Inclusion 2: 025XY005NV
 Inclusion 3: 024XY006NV

791--Rio King loam, slightly saline***Composition*****Major Components**

Rio King loam, slightly saline, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Rio King loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Wendane silty clay loam, 0 to 2 percent slopes--3 percent
 Inclusion 3: Sonoma silty clay loam, strongly saline, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Rio King--Landform: Stream terraces
 Inclusion 1--Landform: Stream terraces; position on slope: lower
 Inclusion 2--Landform: Alluvial flats
 Inclusion 3--Landform: Stream terraces; position on slope: lower

Major Component Description**Rio King Series**

Elevation: 4,200 to 4,500 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Loam
Drainage class: Moderately well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Rio King: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 1: Basin big sagebrush, basin wildrye
 Inclusion 2: Black greasewood, inland saltgrass
 Inclusion 3: Alkali sacaton, black greasewood, inland saltgrass, rubber rabbitbrush

Ecological Site

Rio King: 024XY006NV
 Inclusion 1: 025XY003NV
 Inclusion 2: 024XY011NV
 Inclusion 3: 024XY007NV

800--Udelope-Bregar-Rock outcrop association***Composition*****Major Components**

Udelope very bouldery sandy loam, 4 to 15 percent slopes--35 percent
 Bregar very cobbly loam, cool, 2 to 8 percent slopes--30 percent
 Rock outcrop--20 percent

Contrasting Inclusions

Inclusion 1: Tusk cobbly loam, 8 to 30 percent slopes--5 percent
 Inclusion 2: Hackwood stony silt loam, 8 to 30 percent slopes--4 percent
 Inclusion 3: Ninemile very cobbly loam, 4 to 15 percent slopes--4 percent
 Inclusion 4: Sumine very cobbly loam, 15 to 50 percent slopes--2 percent

Map Unit Setting***Landscape position:*** Hills

Udelope--Landform: Hills; geomorphic position: backslope; shape of slope: convex
 Bregar--Landform: Hills; geomorphic position: backslope; shape of slope: plane
 Rock outcrop--Landform: Hills
 Inclusion 1--Landform: Hills; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Hills; geomorphic position: backslope; shape of slope: convex
 Inclusion 3--Landform: Hills; geomorphic position: backslope; shape of slope: convex
 Inclusion 4--Landform: Hills; geomorphic position: backslope; shape of slope: convex; aspect: south

Major Component Description**Udelope Series**

Elevation: 6,000 to 7,000 feet
Precipitation: About 18 inches
Air temperature: About 43 degrees
Frost-free season: About 70 days
Surface layer texture: Very bouldery sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Bregar Series

Elevation: 6,000 to 7,000 feet
Precipitation: About 14 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface rock fragments: 2 percent stones and boulders; 25 percent cobbles; 30 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 6,000 to 7,000 feet

Dominant Present Vegetation

Udelope: Letterman needlegrass, bluebunch wheatgrass, curleaf mountainmahogany, mountain big sagebrush
 Bregar: Idaho fescue, Thurber needlegrass, antelope bitterbrush, bluebunch wheatgrass, low sagebrush
 Rock outcrop: None
 Inclusion 1: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 2: Groundsel, mountain brome, quaking aspen, slender wheatgrass, snowberry
 Inclusion 3: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Inclusion 4: Antelope bitterbrush, basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Ecological Site

Udelope: 025XY031NV
 Bregar: 025XY051NV
 Rock outcrop: None
 Inclusion 1: 025XY012NV
 Inclusion 2: 025XY065NV
 Inclusion 3: 025XY017NV
 Inclusion 4: 025XY009NV

801--Udelope-Hackwood-Tusel association**Composition****Major Components**

Udelope bouldery sandy loam, 15 to 30 percent slopes--35 percent

Hackwood silt loam, 30 to 50 percent slopes--30 percent

Tusel gravelly loam, dry, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Layview cobbly loam, 15 to 30 percent slopes--6 percent

Inclusion 2: Bullump cobbly loam, 30 to 50 percent slopes--4 percent

Inclusion 3: Rock outcrop--4 percent

Inclusion 4: Entic Cryumbrepts, loamy-skeletal, mixed loam, 8 to 30 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Udelope--Landform: Mountains; geomorphic position: shoulder; shape of slope: convex

Hackwood--Landform: Mountains; shape of slope: concave; aspect: north

Tusel--Landform: Mountains; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: summit; position on slope: upper; shape of slope: convex

Inclusion 2--Landform: Mountains; shape of slope: concave; aspect: south

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Mountains; shape of slope: concave

Major Component Description**Udelope Series**

Elevation: 6,400 to 7,800 feet

Precipitation: About 18 inches

Air temperature: About 43 degrees

Frost-free season: About 70 days

Surface rock fragments: 1 percent stones and boulders; 5 percent cobbles; *Surface layer texture:* Bouldery sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Hackwood Series

Elevation: 6,400 to 7,800 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium and colluvium derived from volcanic rocks

Tusel Series

Elevation: 6,400 to 7,800 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Udelope: Letterman needlegrass, curleaf mountainmahogany, mountain big sagebrush, mountain brome

Hackwood: Bluegrass, mountain brome, quaking aspen

Tusel: Columbia needlegrass, mountain big sagebrush, mountain brome, snowberry

Inclusion 1: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush

Inclusion 2: Antelope bitterbrush, basin wildrye, bluebunch wheatgrass, mountain big sagebrush, mountain brome

Inclusion 3: None

Inclusion 4: Columbia needlegrass, Letterman needlegrass

Ecological Site

Udelope: 025XY075NV

Hackwood: 025XY065NV

Tusel: 025XY004NV

Inclusion 1: 025XY017NV

Inclusion 2: 025XY016NV

Inclusion 3: none

Inclusion 4: 025XY052NV

810--Batan-Goldrun association**Composition****Major Components**

Batan very fine sandy loam, 0 to 2 percent slopes--70 percent

Goldrun loamy fine sand, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Wendane silt loam, 0 to 2 percent slopes--8 percent

Inclusion 2: Playas--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Batan--Landform: Alluvial flats
 Goldrun--Landform: Dunes
 Inclusion 1--Landform: Alluvial flats; position on slope: lower
 Inclusion 2--Landform: Playas

Major Component Description**Batan Series**

Elevation: 4,300 to 4,600 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Moderately well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Goldrun Series

Elevation: 4,300 to 4,600 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Dominant Present Vegetation

Batan: Black greasewood, bottlebrush squirreltail, shadscale
 Goldrun: Indian ricegrass, basin big sagebrush, needleandthread
 Inclusion 1: Black greasewood, inland saltgrass
 Inclusion 2: None

Ecological Site

Batan: 024XY003NV
 Goldrun: 024XY001NV
 Inclusion 1: 024XY011NV
 Inclusion 2: none

811--Batan complex**Composition****Major Components**

Batan silt loam, 0 to 2 percent slopes--55 percent
 Batan loamy fine sand, 0 to 2 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Needle Peak silt loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Bubus very fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 3: Goldrun loamy fine sand, 4 to 30 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Batan--Landform: Alluvial flats
 Batan--Landform: Alluvial flats
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Alluvial flats
 Inclusion 3--Landform: Dunes

Major Component Description**Batan Series**

Elevation: 4,200 to 4,400 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Moderately well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Batan Series

Elevation: 4,200 to 4,400 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Moderately well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Batan: Black greasewood, bottlebrush squirreltail, shadscale
 Batan: Big sagebrush, black greasewood
 Inclusion 1: Basin big sagebrush, basin wildrye
 Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale
 Inclusion 3: Indian ricegrass, basin big sagebrush, hairy horsebrush

Ecological Site

Batan: 024XY003NV
 Batan: 024XY022NV
 Inclusion 1: 024XY006NV

Inclusion 2: 024XY003NV

Inclusion 3: 024XY001NV

813--Batan silt loam, 0 to 2 percent slopes***Composition*****Major Components**

Batan silt loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Batan silt loam, 0 to 2 percent slopes, ponded--5 percent

Inclusion 2: Kelk silt loam, 0 to 2 percent slopes, occasionally flooded--5 percent

Map Unit Setting*Landscape position:* Intermontane basins

Batan--Landform: Alluvial flats

Inclusion 1--Landform: Alluvial flats; shape of slope: concave

Inclusion 2--Landform: Drainageways

Major Component Description**Batan Series***Elevation:* 4,100 to 4,400 feet*Precipitation:* About 7 inches*Air temperature:* About 49 degrees*Frost-free season:* About 110 days*Surface layer texture:* Silt loam*Drainage class:* Moderately well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash***Dominant Present Vegetation***

Batan: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 1: Black greasewood, inland saltgrass

Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood

Ecological Site

Batan: 024XY003NV

Inclusion 1: 024XY011NV

Inclusion 2: 024XY006NV

815--Batan-Prideen-Wendane complex***Composition*****Major Components**

Batan silt loam, 0 to 2 percent slopes--35 percent

Prideen silt loam, strongly saline, 0 to 2 percent slopes--30 percent

Wendane silt loam, 0 to 2 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--5 percent

Inclusion 2: Valmy very fine sandy loam, 0 to 4 percent slopes--4 percent

Inclusion 3: Prideen silt loam, 0 to 2 percent slopes, rarely flooded--4 percent

Inclusion 4: Bubus very fine sandy loam, 0 to 2 percent slopes--2 percent

Map Unit Setting*Landscape position:* Intermontane basins

Batan--Landform: Alluvial flats

Prideen--Landform: Alluvial flats; position on slope: lower

Wendane--Landform: Drainageways

Inclusion 1--Landform: Drainageways; geomorphic position: backslope

Inclusion 2--Landform: Fan skirts; position on slope: upper

Inclusion 3--Landform: Alluvial flats

Inclusion 4--Landform: Fan skirts; position on slope: upper

Major Component Description**Batan Series***Elevation:* 4,100 to 4,200 feet*Precipitation:* About 7 inches*Air temperature:* About 49 degrees*Frost-free season:* About 110 days*Surface layer texture:* Silt loam*Drainage class:* Moderately well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash**Prideen Series***Elevation:* 4,100 to 4,200 feet*Precipitation:* About 8 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Silt loam*Drainage class:* Somewhat poorly drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash**Wendane Series***Elevation:* 4,100 to 4,200 feet*Precipitation:* About 7 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Silt loam

Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Batan: Black greasewood, bottlebrush squirreltail, shadscale
 Prideen: Black greasewood, seepweed
 Wendane: Basin wildrye, black greasewood
 Inclusion 1: Alkali sacaton, black greasewood, inland saltgrass
 Inclusion 2: Big sagebrush, black greasewood, bottlebrush squirreltail
 Inclusion 3: Inland saltgrass, iodinebush
 Inclusion 4: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Batan: 024XY003NV
 Prideen: 024XY011NV
 Wendane: 024XY011NV
 Inclusion 1: 024XY007NV
 Inclusion 2: 024XY022NV
 Inclusion 3: 024XY010NV
 Inclusion 4: 024XY003NV

818--Batan-Goldrun-Bubus complex, 0 to 30 percent slopes

Composition

Major Components

Batan loamy fine sand, 0 to 2 percent slopes--45 percent
 Goldrun fine sand, 8 to 30 percent slopes--25 percent
 Bubus loamy fine sand, 2 to 4 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Rad loamy very fine sand, 2 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Batan--Landform: Alluvial flats
 Goldrun--Landform: Dunes
 Bubus--Landform: Alluvial flats
 Inclusion 1--Landform: Sand sheets

Major Component Description

Batan Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees

Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Moderately well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Goldrun Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Bubus Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Batan: Big sagebrush, black greasewood
 Goldrun: Indian ricegrass, basin big sagebrush, needleandthread
 Bubus: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail
 Inclusion 1: Indian ricegrass, big sagebrush, needleandthread

Ecological Site

Batan: 024XY022NV
 Goldrun: 024XY001NV
 Bubus: 024XY022NV
 Inclusion 1: 024XY017NV

823--Whirlo-Orovada-Snapp association

Composition

Major Components

Whirlo silt loam, 2 to 8 percent slopes--40 percent
 Orovada very fine sandy loam, 2 to 8 percent slopes--25 percent
 Snapp gravelly very fine sandy loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Connel very fine sandy loam, dry, 0 to 2 percent slopes--7 percent

Inclusion 2: Golconda very fine sandy loam, 2 to 8 percent slopes--7 percent

Inclusion 3: Valmy fine sandy loam, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Fan piedmonts

Whirlo--Landform: Inset fans; position on slope: lower

Orovada--Landform: Inset fans; position on slope: upper

Snapp--Landform: Fan remnants

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Fan remnants; position on slope: lower

Inclusion 3--Landform: Fan skirts; position on slope: lower

Major Component Description

Whirlo Series

Elevation: 4,400 to 5,200 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Orovada Series

Elevation: 4,400 to 5,200 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Snapp Series

Elevation: 4,400 to 5,200 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Whirlo: Bottlebrush squirreltail, bud sagebrush, shadscale

Orovada: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Snapp: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail

Ecological Site

Whirlo: 024XY002NV

Orovada: 024XY020NV

Snapp: 024XY005NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY002NV

Inclusion 3: 024XY022NV

825--Whirlo-Oxcorel-Weso association

Composition

Major Components

Whirlo gravelly very fine sandy loam, 2 to 8 percent slopes--35 percent

Oxcorel gravelly very fine sandy loam, 2 to 8 percent slopes--25 percent

Weso very fine sandy loam, 0 to 2 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Preble very fine sandy loam, 0 to 2 percent slopes--7 percent

Inclusion 2: Snapp gravelly very fine sandy loam, 2 to 8 percent slopes--5 percent

Inclusion 3: Whirlo very gravelly very fine sandy loam, 15 to 30 percent slopes--2 percent

Inclusion 4: Oxcorel silty clay loam, moderately saline, 0 to 4 percent slopes--1 percent

Map Unit Setting

Landscape position: Intermontane basins

Whirlo--Landform: Inset fans

Oxcorel--Landform: Fan remnants

Weso--Landform: Fan skirts

Inclusion 1--Landform: Fan skirts; position on slope: lower

Inclusion 2--Landform: Fan remnants; position on slope: upper

Inclusion 3--Landform: Fan remnants; geomorphic position: backslope

Inclusion 4--Landform: Fan remnants; position on slope: lower

Major Component Description**Whirlo Series**

Elevation: 4,300 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Oxcorel Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Weso Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Whirlo: Bottlebrush squirreltail, bud sagebrush, shadscale

Oxcorel: Bottlebrush squirreltail, bud sagebrush, shadscale

Weso: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Black greasewood, inland saltgrass

Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 4: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Whirlo: 024XY002NV

Oxcorel: 024XY002NV

Weso: 024XY002NV

Inclusion 1: 024XY011NV

Inclusion 2: 024XY005NV

Inclusion 3: 024XY002NV

Inclusion 4: 024XY003NV

831--Boton-Playas association**Composition****Major Components**

Boton silt loam, 0 to 2 percent slopes--50 percent

Playas silty clay loam, 0 to 1 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Mazuma silt loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Essal very fine sandy loam, 0 to 2 percent slopes--5 percent

Inclusion 3: Tressed very fine sandy loam, strongly saline, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Boton--Landform: Lake plains

Playas--Landform: Playas

Inclusion 1--Landform: Lake plains; position on slope: upper

Inclusion 2--Landform: Basin-floor remnants; position on slope: upper

Inclusion 3--Landform: Lake plains; shape of slope: concave

Major Component Description**Boton Series**

Elevation: 4,100 to 4,200 feet

Precipitation: About 7 inches

Air temperature: About 51 degrees

Frost-free season: About 130 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks over lacustrine sediments

Playas Miscellaneous Area

Elevation: 4,100 to 4,200 feet

Surface layer texture: Silty clay loam

Dominant Present Vegetation

Boton: Black greasewood, bottlebrush squirreltail, shadscale

Playas: None

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 3: Black greasewood, seepweed

Ecological Site

Boton: 024XY003NV

Playas: None

Inclusion 1: 024XY002NV
 Inclusion 2: 024XY003NV
 Inclusion 3: 024XY011NV

833--Boton-Isolde association

Composition

Major Components

Boton very fine sandy loam, 0 to 2 percent slopes--35 percent
 Isolde fine sand, slightly saline, 2 to 8 percent slopes--30 percent
 Boton loamy fine sand, 0 to 2 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Davey loamy fine sand, 0 to 4 percent slopes--7 percent
 Inclusion 2: Broyles very fine sandy loam, 0 to 2 percent slopes--4 percent
 Inclusion 3: Goldrun fine sand, 8 to 15 percent slopes--2 percent
 Inclusion 4: Playas--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Boton--Landform: Lake plains
 Isolde--Landform: Dunes
 Boton--Landform: Lake plains
 Inclusion 1--Landform: Sand sheets; position on slope: upper
 Inclusion 2--Landform: Fan skirts; position on slope: upper
 Inclusion 3--Landform: Dunes; position on slope: upper
 Inclusion 4--Landform: Playas

Major Component Description

Boton Series

Elevation: 4,200 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 51 degrees
Frost-free season: About 130 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks over lacustrine sediments

Isolde Series

Elevation: 4,200 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 52 degrees
Frost-free season: About 120 days
Surface layer texture: Fine sand

Drainage class: Excessively drained
Dominant parent material: Eolian sand

Boton Series

Elevation: 4,200 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 51 degrees
Frost-free season: About 130 days
Surface layer texture: Loamy fine sand
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks over lacustrine sediments

Dominant Present Vegetation

Boton: Black greasewood, bottlebrush squirreltail, shadscale
 Isolde: Indian ricegrass, black greasewood, horsebrush
 Boton: Indian ricegrass, big sagebrush, black greasewood
 Inclusion 1: Indian ricegrass, big sagebrush, needleandthread
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 3: Indian ricegrass, basin big sagebrush
 Inclusion 4: None

Ecological Site

Boton: 024XY003NV
 Isolde: 027XY016NV
 Boton: 024XY022NV
 Inclusion 1: 024XY017NV
 Inclusion 2: 024XY002NV
 Inclusion 3: 024XY001NV
 Inclusion 4: none

834--Boton-Davey association

Composition

Major Components

Boton loamy fine sand, overblown, 0 to 2 percent slopes--60 percent
 Davey loamy fine sand, 0 to 4 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Hawsley fine sand, 0 to 2 percent slopes--10 percent
 Inclusion 2: Tresed loamy very fine sand, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Boton--Landform: Lake plains

Davey--Landform: Sand sheets
 Inclusion 1--Landform: Sand sheets; position on slope: lower
 Inclusion 2--Landform: Lake plains; shape of slope: concave

Major Component Description

Boton Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 7 inches
Air temperature: About 51 degrees
Frost-free season: About 130 days
Surface layer texture: Loamy fine sand
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks over lacustrine sediments

Davey Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Boton: Indian ricegrass, big sagebrush, needleandthread
 Davey: Indian ricegrass, big sagebrush, needleandthread
 Inclusion 1: Indian ricegrass, littleleaf horsebrush, needleandthread
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Boton: 024XY017NV
 Davey: 024XY017NV
 Inclusion 1: 027XY009NV
 Inclusion 2: 024XY002NV

840--Dugchip-Flue-Dewar association

Composition

Major Components

Dugchip very fine sandy loam, 2 to 8 percent slopes--45 percent
 Flue very fine sandy loam, 2 to 8 percent slopes--25 percent
 Dewar gravelly very fine sandy loam, 4 to 8 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Rebel very fine sandy loam, 2 to 4 percent slopes--8 percent
 Inclusion 2: Enko fine sandy loam, 2 to 4 percent slopes--7 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Dugchip--Landform: Fan remnants; geomorphic position: summit; position on slope: lower
 Flue--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Dewar--Landform: Fan remnants; geomorphic position: backslope
 Inclusion 1--Landform: Inset fans
 Inclusion 2--Landform: Fan remnants; geomorphic position: footslope

Major Component Description

Dugchip Series

Elevation: 4,400 to 5,300 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Flue Series

Elevation: 4,400 to 5,300 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dewar Series

Elevation: 4,400 to 5,300 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dugchip: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Flue: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Dewar: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Dugchip: 024XY005NV
 Flue: 024XY005NV
 Dewar: 024XY005NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY005NV

842--Dugchip-Kelk association

Composition

Major Components

Dugchip very fine sandy loam, 2 to 8 percent slopes--65 percent
 Kelk silt loam, 0 to 2 percent slopes, occasionally flooded--20 percent

Contrasting Inclusions

Inclusion 1: Enko loamy very fine sand, 2 to 8 percent slopes--9 percent
 Inclusion 2: Enko fine sandy loam, 2 to 8 percent slopes--4 percent
 Inclusion 3: Connel silt loam, 0 to 4 percent slopes, occasionally flooded--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Dugchip--Landform: Fan remnants
 Kelk--Landform: Inset fans
 Inclusion 1--Landform: Fan remnants; geomorphic position: footslope; position on slope: lower
 Inclusion 2--Landform: Fan remnants; geomorphic position: footslope; position on slope: lower
 Inclusion 3--Landform: Drainageways; position on slope: upper

Major Component Description

Dugchip Series

Elevation: 4,300 to 4,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Kelk Series

Elevation: 4,300 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dugchip: Wyoming big sagebrush, bottlebrush squirreltail
 Kelk: Basin big sagebrush, basin wildrye
 Inclusion 1: Big sagebrush, bottlebrush squirreltail, thickspike wheatgrass
 Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: Basin wildrye

Ecological Site

Dugchip: 024XY005NV
 Kelk: 024XY006NV
 Inclusion 1: 024XY017NV
 Inclusion 2: 024XY005NV
 Inclusion 3: 024XY006NV

844--Dugchip-Chiara association

Composition

Major Components

Dugchip very fine sandy loam, 2 to 8 percent slopes--65 percent
 Chiara gravelly fine sandy loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Beeox gravelly very fine sandy loam, stony, 2 to 8 percent slopes--8 percent
 Inclusion 2: Dewar gravelly very fine sandy loam, dry, 2 to 8 percent slopes--4 percent
 Inclusion 3: Connel gravelly very fine sandy loam, moist, 2 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Dugchip--Landform: Fan remnants; geomorphic position: summit
 Chiara--Landform: Fan remnants; geomorphic position: backslope
 Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: lower; shape of slope: convex

Inclusion 2--Landform: Fan remnants; geomorphic position: shoulder; position on slope: upper
 Inclusion 3--Landform: Inset fans

Major Component Description

Dugchip Series

Elevation: 4,600 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Chiara Series

Elevation: 4,600 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dugchip: Wyoming big sagebrush, bottlebrush squirreltail
 Chiara: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Dugchip: 024XY005NV
 Chiara: 024XY005NV
 Inclusion 1: 024XY002NV
 Inclusion 2: 024XY020NV
 Inclusion 3: 024XY005NV

845--Dugchip-Needle Peak complex, 0 to 4 percent slopes

Composition

Major Components

Dugchip very fine sandy loam, moderately saline, 0 to 4 percent slopes--55 percent
 Needle Peak silt loam, 0 to 2 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Bliss very fine sandy loam, moderately saline, 0 to 2 percent slopes--5 percent
 Inclusion 2: Needle Peak silt loam, hardpan substratum, 0 to 2 percent slopes--5 percent
 Inclusion 3: Snapp very fine sandy loam, 0 to 2 percent slopes--3 percent
 Inclusion 4: Beeox very fine sandy loam, 2 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Dugchip--Landform: Fan remnants
 Needle Peak--Landform: Inset fans
 Inclusion 1--Landform: Fan remnants; geomorphic position: backslope; position on slope: lower
 Inclusion 2--Landform: Fan remnants; geomorphic position: toeslope
 Inclusion 3--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Inclusion 4--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Major Component Description

Dugchip Series

Elevation: 4,500 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Needle Peak Series

Elevation: 4,500 to 5,000 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dugchip: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail
 Needle Peak: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 1: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail
 Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 4: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Dugchip: 024XY022NV

Needle Peak: 024XY006NV

Inclusion 1: 024XY022NV

Inclusion 2: 024XY006NV

Inclusion 3: 024XY005NV

Inclusion 4: 024XY002NV

860--Goosel-Devada-Vanwyper association

Composition

Major Components

Goosel very fine sandy loam, 2 to 4 percent slopes--40 percent

Devada very cobbly very fine sandy loam, 4 to 15 percent slopes--30 percent

Vanwyper very cobbly loam, 15 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Wieland loam, 2 to 4 percent slopes--5 percent

Inclusion 2: Rio King loam, 0 to 2 percent slopes--4 percent

Inclusion 3: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Plateaus

Goosel--Landform: Plateaus; geomorphic position: summit

Devada--Landform: Plateaus; geomorphic position: backslope

Vanwyper--Landform: Plateaus; geomorphic position: backslope; aspect: south

Inclusion 1--Landform: Plateaus; geomorphic position: toeslope

Inclusion 2--Landform: Drainageways

Inclusion 3--Landform: Plateaus

Major Component Description

Goosel Series

Elevation: 5,200 to 5,700 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Devada Series

Elevation: 5,200 to 5,700 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Vanwyper Series

Elevation: 5,200 to 5,700 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Goosel: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Devada: Sandberg bluegrass, bluebunch wheatgrass, low sagebrush

Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 2: Basin big sagebrush, basin wildrye

Inclusion 3: None

Ecological Site

Goosel: 025XY019NV

Devada: 025XY022NV

Vanwyper: 025XY015NV

Inclusion 1: 025XY019NV

Inclusion 2: 025XY003NV

Inclusion 3: none

861--Goosel very fine sandy loam, 0 to 4 percent slopes

Composition

Major Components

Goosel very fine sandy loam, 0 to 4 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Boger very fine sandy loam, 2 to 4 percent slopes--4 percent

Inclusion 2: Devada very cobbly loam, 2 to 4 percent slopes--4 percent

Inclusion 3: Burrita very cobbly loam, warm, 15 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus

Goosel--Landform: Plateaus; geomorphic position: summit

Inclusion 1--Landform: Plateaus; geomorphic position: summit; position on slope: lower

Inclusion 2--Landform: Plateaus; geomorphic position: shoulder

Inclusion 3--Landform: Plateaus; geomorphic position: backslope

Major Component Description

Goosel Series

Elevation: 5,000 to 5,700 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Goosel: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush

Inclusion 1: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush

Inclusion 2: Sandberg bluegrass, bluebunch wheatgrass, low sagebrush

Inclusion 3: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Goosel: 024XY005NV

Inclusion 1: 024XY005NV

Inclusion 2: 025XY022NV

Inclusion 3: 024XY035NV

862--Goosel-Devada association

Composition

Major Components

Goosel silt loam, 2 to 4 percent slopes--35 percent
Devada cobbly loam, 2 to 4 percent slopes--30 percent

Goosel cobbly loam, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Clementine loam, drained, 0 to 2 percent slopes--5 percent

Inclusion 2: Devada very cobbly loam, 2 to 4 percent slopes--5 percent

Inclusion 3: Rock outcrop--5 percent

Map Unit Setting

Landscape position: Plateaus

Goosel--Landform: Plateaus; geomorphic position: summit

Devada--Landform: Plateaus; geomorphic position: backslope

Goosel--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave

Inclusion 1--Landform: Stream terraces

Inclusion 2--Landform: Plateaus

Inclusion 3--Landform: Plateaus

Major Component Description

Goosel Series

Elevation: 5,400 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Devada Series

Elevation: 5,400 to 5,600 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Goosel Series

Elevation: 5,400 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Goosel: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Devada: Thurber needlegrass, bluebunch wheatgrass, bluegrass, low sagebrush
 Goosel: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: Basin big sagebrush, basin wildrye
 Inclusion 2: Sandberg bluegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 3: None

Ecological Site

Goosel: 025XY019NV
 Devada: 025XY018NV
 Goosel: 025XY019NV
 Inclusion 1: 025XY003NV
 Inclusion 2: 025XY022NV
 Inclusion 3: none

863--Goosel-Midraw association

Composition

Major Components

Goosel gravelly loam, 4 to 15 percent slopes--60 percent
 Midraw cobbly loam, 8 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Devada very gravelly loam, 2 to 8 percent slopes--8 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Wieland gravelly loam, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Goosel--Landform: Plateaus; geomorphic position: summit
 Midraw--Landform: Plateaus; geomorphic position: backslope
 Inclusion 1--Landform: Plateaus; geomorphic position: summit
 Inclusion 2--Landform: Plateaus
 Inclusion 3--Landform: Plateaus; geomorphic position: summit; shape of slope: concave

Major Component Description

Goosel Series

Elevation: 5,400 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Gravelly loam
Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Midraw Series

Elevation: 5,400 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Goosel: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Midraw: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 2: None
 Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Ecological Site

Goosel: 025XY019NV
 Midraw: 025XY019NV
 Inclusion 1: 025XY018NV
 Inclusion 2: none
 Inclusion 3: 025XY019NV

880--Cleavage-Sumine-Harcany association

Composition

Major Components

Cleavage very cobbly loam, 30 to 50 percent slopes--40 percent
 Sumine cobbly loam, 30 to 50 percent slopes--25 percent
 Harcany very gravelly loam, cool, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Softscrabble cobbly loam, 15 to 50 percent slopes--6 percent
 Inclusion 2: Westbutte cobbly loam, 30 to 50 percent slopes--5 percent
 Inclusion 3: Cumulic Endoaquolls, fine-loamy, mixed, frigid cobbly loam, drained, 2 to 15 percent slopes--3 percent
 Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, frigid loam, 2 to 15 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Cleavage--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Sumine--Landform: Mountains; geomorphic position: backslope; aspect: south

Harcany--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: backslope

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 3--Landform: Drainageways

Inclusion 4--Landform: Flood plains

Major Component Description**Cleavage Series**

Elevation: 6,200 to 6,800 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 3 percent stones and boulders; 15 percent cobbles; 25 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Sumine Series

Elevation: 6,200 to 6,800 feet

Precipitation: About 12 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Harcany Series

Elevation: 6,200 to 6,800 feet

Precipitation: About 15 inches

Air temperature: About 40 degrees

Frost-free season: About 50 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Dominant Present Vegetation

Cleavage: Idaho fescue, bottlebrush squirreltail, low sagebrush

Sumine: Bluebunch wheatgrass, mountain big sagebrush

Harcany: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Inclusion 1: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 2: Idaho fescue, threetip sagebrush

Inclusion 3: Basin wildrye, mountain big sagebrush

Inclusion 4: Bluegrass, rush, sedge

Ecological Site

Cleavage: 023XY008NV

Sumine: 023XY016NV

Harcany: 023XY019NV

Inclusion 1: 023XY007NV

Inclusion 2: 023XY053NV

Inclusion 3: 023XY056NV

Inclusion 4: 023XY025NV

881--Cleavage-Burrita-Bregar association**Composition****Major Components**

Cleavage very gravelly loam, moist, 15 to 50 percent slopes--35 percent

Burrita very stony loam, south, 30 to 50 percent slopes--30 percent

Bregar very stony loam, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Bregar extremely cobbly loam, moist, 8 to 30 percent slopes--7 percent

Inclusion 2: Gowjai cobbly fine sandy loam, 15 to 50 percent slopes--4 percent

Inclusion 3: Harcany very stony loam, 8 to 30 percent slopes--2 percent

Inclusion 4: Sumine very cobbly loam, 15 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Cleavage--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Burrita--Landform: Mountains; geomorphic position: backslope; aspect: south

Bregar--Landform: Mountains; geomorphic position: summit

Inclusion 1--Landform: Mountains; geomorphic position: shoulder; aspect: south

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 3--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 4--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: south

Major Component Description

Cleavage Series

Elevation: 6,000 to 7,500 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Burrita Series

Elevation: 6,000 to 7,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Bregar Series

Elevation: 6,000 to 7,500 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Cleavage: Idaho fescue, bluebunch wheatgrass, low sagebrush

Burrita: Sandberg bluegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail

Bregar: Bluegrass, low sagebrush

Inclusion 1: Bluebunch wheatgrass, bluegrass, low sagebrush

Inclusion 2: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 3: Mountain big sagebrush, mountain brome, needlegrass

Inclusion 4: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Ecological Site

Cleavage: 024XY027NV

Burrita: 024XY028NV

Bregar: 024XY016NV

Inclusion 1: 024XY018NV

Inclusion 2: 024XY021NV

Inclusion 3: 024XY032NV

Inclusion 4: 024XY029NV

882--Cleavage-Rock outcrop association

Composition

Major Components

Cleavage very cobbly loam, 50 to 75 percent slopes--60 percent

Rock outcrop--30 percent

Contrasting Inclusions

Inclusion 1: Ninemile cobbly loam, 30 to 50 percent slopes--4 percent

Inclusion 2: Udelope stony loam, dry, 15 to 75 percent slopes--3 percent

Inclusion 3: Tusel loam, 30 to 50 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains

Cleavage--Landform: Mountains

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains

Inclusion 2--Landform: Mountains; geomorphic position: summit

Inclusion 3--Landform: Mountains; shape of slope: concave; aspect: north

Major Component Description

Cleavage Series

Elevation: 6,800 to 8,000 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 3 percent stones and boulders; 15 percent cobbles; 25 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 6,800 to 8,000 feet

Dominant Present Vegetation

Cleavage: Idaho fescue, bluegrass, low sagebrush

Rock outcrop: None

Inclusion 1: Idaho fescue, bluegrass, low sagebrush
 Inclusion 2: Letterman needlegrass, bluebunch wheatgrass, curlleaf mountainmahogany, mountain big sagebrush
 Inclusion 3: Idaho fescue, mountain big sagebrush, mountain brome, slender wheatgrass, snowberry

Ecological Site

Cleavage: 025XY024NV
 Rock outcrop: None
 Inclusion 1: 025XY017NV
 Inclusion 2: 025XY031NV
 Inclusion 3: 025XY004NV

883--Cleavage-Tusel-Anawalt association

Composition

Major Components

Cleavage very gravelly loam, moist, 4 to 15 percent slopes--40 percent
 Tusel cobbly loam, 4 to 15 percent slopes--35 percent
 Anawalt very gravelly loam, 8 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--3 percent
 Inclusion 2: Softscrabble stony loam, dry, 8 to 30 percent slopes--3 percent
 Inclusion 3: Cleavage very gravelly loam, 2 to 8 percent slopes--3 percent
 Inclusion 4: Udelope bouldery sandy loam, 15 to 30 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains
 Cleavage--Landform: Mountains; geomorphic position: summit; shape of slope: convex; aspect: north
 Tusel--Landform: Mountains; shape of slope: concave; aspect: north
 Anawalt--Landform: Mountains; shape of slope: convex; aspect: south
 Inclusion 1--Landform: Mountains
 Inclusion 2--Landform: Mountains; shape of slope: concave; aspect: south
 Inclusion 3--Landform: Mountains; geomorphic position: summit
 Inclusion 4--Landform: Mountains; geomorphic position: shoulder

Major Component Description

Cleavage Series

Elevation: 6,200 to 7,100 feet

Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Tusel Series

Elevation: 6,200 to 7,100 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface rock fragments: 15 percent cobbles; 10 percent gravel
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Anawalt Series

Elevation: 6,200 to 6,700 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 5 percent cobbles; 45 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Cleavage: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Tusel: Columbia needlegrass, Idaho fescue, mountain big sagebrush, mountain brome, serviceberry, wheatgrass
 Anawalt: Thurber needlegrass, low sagebrush
 Inclusion 1: None
 Inclusion 2: Idaho fescue, arrowleaf balsamroot, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 3: Idaho fescue, bluegrass, low sagebrush
 Inclusion 4: Idaho fescue, bluebunch wheatgrass, curlleaf mountainmahogany, mountain big sagebrush, needlegrass

Ecological Site

Cleavage: 024XY027NV
 Tusel: 024XY032NV
 Anawalt: 024XY018NV
 Inclusion 1: none
 Inclusion 2: 024XY021NV

Inclusion 3: 024XY016NV

Inclusion 4: 025XY071NV

884--Cleavage-Anawalt-Tusel association

Composition

Major Components

Cleavage very gravelly loam, moist, 15 to 30 percent slopes--35 percent

Anawalt very gravelly loam, 8 to 30 percent slopes--30 percent

Tusel cobbly loam, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Softscrabble stony loam, dry, 8 to 30 percent slopes--6 percent

Inclusion 2: Bregar very gravelly loam, dry, 4 to 15 percent slopes--5 percent

Inclusion 3: Rock outcrop--2 percent

Inclusion 4: Hackwood silt loam, 15 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Cleavage--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Anawalt--Landform: Mountains; geomorphic position: backslope; aspect: south

Tusel--Landform: Mountains; geomorphic position: backslope; shape of slope: concave

Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave

Inclusion 2--Landform: Mountains; geomorphic position: summit

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Mountains; shape of slope: concave

Major Component Description

Cleavage Series

Elevation: 6,000 to 7,000 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Anawalt Series

Elevation: 6,000 to 7,000 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent cobbles; 45 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Tusel Series

Elevation: 6,000 to 7,000 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface rock fragments: 15 percent cobbles; 10 percent gravel

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Cleavage: Idaho fescue, Thurber needlegrass, bluebunch wheatgrass, bluegrass, low sagebrush

Anawalt: Thurber needlegrass, low sagebrush

Tusel: Idaho fescue, lupine, mountain big sagebrush, serviceberry, slender wheatgrass

Inclusion 1: Bluebunch wheatgrass, mountain big sagebrush

Inclusion 2: Idaho fescue, black sagebrush, low sagebrush

Inclusion 3: None

Inclusion 4: Mountain brome, quaking aspen

Ecological Site

Cleavage: 024XY027NV

Anawalt: 024XY018NV

Tusel: 024XY032NV

Inclusion 1: 024XY021NV

Inclusion 2: 024XY016NV

Inclusion 3: none

Inclusion 4: 025XY065NV

885--Cleavage-Reluctan association

Composition

Major Components

Cleavage extremely cobbly loam, moist, 4 to 15 percent slopes--45 percent

Cleavage very cobbly loam, moist, 15 to 30 percent slopes--20 percent

Reluctan cobbly loam, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

- Inclusion 1: Bregar extremely stony loam, 2 to 8 percent slopes--7 percent
 Inclusion 2: Softscrabble stony loam, 15 to 50 percent slopes--4 percent
 Inclusion 3: Rock outcrop--2 percent
 Inclusion 4: Udelope very bouldery loam, 15 to 75 percent slopes--2 percent

Map Unit Setting

- Landscape position:* Mountains
Cleavage--Landform: Mountains; geomorphic position: summit
Cleavage--Landform: Mountains; shape of slope: convex
Reluctan--Landform: Mountains; position on slope: upper; aspect: north
Inclusion 1--Landform: Mountains; geomorphic position: summit
Inclusion 2--Landform: Mountains; position on slope: lower; shape of slope: concave; aspect: north
Inclusion 3--Landform: Mountains
Inclusion 4--Landform: Mountains; geomorphic position: shoulder

Major Component Description**Cleavage Series**

- Elevation:* 6,200 to 7,200 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface rock fragments: 1 percent stones and boulders; 30 percent cobbles; 25 percent gravel
Surface layer texture: Extremely cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Cleavage Series

- Elevation:* 6,200 to 7,200 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface rock fragments: 1 percent stones and boulders; 15 percent cobbles; 25 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Reluctan Series

- Elevation:* 6,200 to 7,200 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

- Cleavage:* Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, bluegrass, low sagebrush
Cleavage: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, bluegrass, low sagebrush
Reluctan: Idaho fescue, Nevada bluegrass, basin big sagebrush, basin wildrye, bluebunch wheatgrass
Inclusion 1: Idaho fescue, bluegrass
Inclusion 2: Idaho fescue, Nevada bluegrass, antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush
Inclusion 3: None
Inclusion 4: Idaho fescue, bluebunch wheatgrass, curlleaf mountainmahogany, mountain big sagebrush, needlegrass

Ecological Site

- Cleavage:* 025XY017NV
Cleavage: 025XY017NV
Reluctan: 025XY027NV
Inclusion 1: 025XY024NV
Inclusion 2: 025XY012NV
Inclusion 3: none
Inclusion 4: 025XY071NV

886--Cleavage-Bullump association**Composition****Major Components**

- Cleavage cobbly loam,* moist, 30 to 50 percent slopes--45 percent
Bullump cobbly loam, 30 to 50 percent slopes--40 percent

Contrasting Inclusions

- Inclusion 1:* Cleavage very gravelly loam, 8 to 15 percent slopes--8 percent
Inclusion 2: Rock outcrop--3 percent
Inclusion 3: Udelope stony loam, 15 to 50 percent slopes--3 percent
Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, drained, 2 to 8 percent slopes--1 percent

Map Unit Setting

- Landscape position:* Mountains
Cleavage--Landform: Mountains; shape of slope: convex

Bullump--Landform: Mountains; shape of slope: concave

Inclusion 1--Landform: Mountains; geomorphic position: summit

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Drainageways

Inclusion 4--Landform: Drainageways

Major Component Description

Cleavage Series

Elevation: 6,400 to 7,600 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 3 percent stones and boulders; 15 percent cobbles; 25 percent gravel

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Bullump Series

Elevation: 6,400 to 7,600 feet

Precipitation: About 16 inches

Air temperature: About 43 degrees

Frost-free season: About 70 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from mixed rocks

Dominant Present Vegetation

Cleavage: Idaho fescue, bluebunch wheatgrass, low sagebrush

Bullump: Antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush, mountain brome

Inclusion 1: Idaho fescue, bluegrass, low sagebrush

Inclusion 2: None

Inclusion 3: Bluebunch wheatgrass, curlleaf mountainmahogany, mountain big sagebrush, mountain snowberry

Inclusion 4: Nevada bluegrass, Woods rose, quaking aspen, sedge

Ecological Site

Cleavage: 025XY017NV

Bullump: 025XY016NV

Inclusion 1: 025XY024NV

Inclusion 2: none

Inclusion 3: 025XY031NV

Inclusion 4: 025XY064NV

891--Softscrabble-Cleavage-Harcany association

Composition

Major Components

Softscrabble stony fine sandy loam, 8 to 30 percent slopes--40 percent

Cleavage very cobbly loam, 8 to 30 percent slopes--30 percent

Harcany gravelly loam, cool, 15 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Westbutte very gravelly loam, 15 to 30 percent slopes--5 percent

Inclusion 2: Pachic Cryoborolls, loamy-skeletal, mixed very gravelly loam, cold, 30 to 75 percent slopes--5 percent

Inclusion 3: Cleavage cobbly loam, moist, 30 to 50 percent slopes--3 percent

Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, frigid loam, drained, 4 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Softscrabble--Landform: Mountains; geomorphic position: backslope; aspect: south

Cleavage--Landform: Mountains; geomorphic position: summit

Harcany--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: summit; position on slope: upper

Inclusion 3--Landform: Mountains; geomorphic position: backslope; shape of slope: convex

Inclusion 4--Landform: Stream terraces

Major Component Description

Softscrabble Series

Elevation: 6,500 to 7,200 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 60 days

Surface rock fragments: 2 percent stones and boulders; 15 percent gravel

Surface layer texture: Stony fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Cleavage Series*Elevation:* 6,500 to 7,200 feet*Precipitation:* About 14 inches*Air temperature:* About 43 degrees*Frost-free season:* About 80 days*Surface layer texture:* Very cobbly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks**Harcany Series***Elevation:* 6,500 to 7,200 feet*Precipitation:* About 15 inches*Air temperature:* About 40 degrees*Frost-free season:* About 50 days*Surface layer texture:* Gravelly loam*Drainage class:* Well drained*Dominant parent material:* Colluvium derived from volcanic rocks***Dominant Present Vegetation***

Softscrabble: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Cleavage: Idaho fescue, bluegrass, low sagebrush

Harcany: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Inclusion 1: Idaho fescue, threetip sagebrush

Inclusion 2: Needlegrass, tailcup lupine

Inclusion 3: Idaho fescue, low sagebrush

Inclusion 4: Bluegrass, iris, rush

Ecological Site

Softscrabble: 023XY007NV

Cleavage: 023XY008NV

Harcany: 023XY019NV

Inclusion 1: 023XY053NV

Inclusion 2: 023XY062NV

Inclusion 3: 023XY017NV

Inclusion 4: 023XY013NV

892--Softscrabble-Cleavage-Ninemile association***Composition*****Major Components**

Softscrabble gravelly loam, 8 to 30 percent slopes--40 percent

Cleavage cobbly loam, moist, 4 to 15 percent slopes--25 percent

Ninemile stony loam, 8 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Udelope very stony loam, 8 to 30

percent slopes--5 percent

Inclusion 2: Rock outcrop--5 percent

Inclusion 3: Tusel loam, 15 to 50 percent slopes--4 percent

Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed frigid silt loam, drained, 2 to 4 percent slopes--1 percent

Map Unit Setting*Landscape position:* Mountains

Softscrabble--Landform: Mountains; shape of slope: plane

Cleavage--Landform: Mountains; geomorphic position: summit; shape of slope: convex

Ninemile--Landform: Mountains

Inclusion 1--Landform: Canyons; geomorphic position: backslope; position on slope: upper

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Mountains; shape of slope: concave; aspect: north

Inclusion 4--Landform: Stream terraces

Major Component Description**Softscrabble Series***Elevation:* 6,200 to 7,600 feet*Precipitation:* About 14 inches*Air temperature:* About 42 degrees*Frost-free season:* About 60 days*Surface rock fragments:* 15 percent gravel*Surface layer texture:* Gravelly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from volcanic rocks**Cleavage Series***Elevation:* 6,200 to 7,600 feet*Precipitation:* About 14 inches*Air temperature:* About 43 degrees*Frost-free season:* About 80 days*Surface rock fragments:* 3 percent stones and boulders; 15 percent cobbles; 25 percent gravel*Surface layer texture:* Cobbly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks**Ninemile Series***Elevation:* 6,200 to 7,600 feet*Precipitation:* About 14 inches*Air temperature:* About 43 degrees*Frost-free season:* About 90 days*Surface rock fragments:* 25 percent gravel*Surface layer texture:* Stony loam*Drainage class:* Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Softscrabble: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Cleavage: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, bluegrass, low sagebrush
 Ninemile: Idaho fescue, Thurber needlegrass, antelope bitterbrush, bluebunch wheatgrass, low sagebrush
 Inclusion 1: Idaho fescue, bluebunch wheatgrass, curleaf mountainmahogany, mountain big sagebrush, needlegrass
 Inclusion 2: None
 Inclusion 3: Idaho fescue, mountain big sagebrush, mountain brome, slender wheatgrass, snowberry, spike fescue
 Inclusion 4: Nevada bluegrass, alpine timothy, basin wildrye, mat muhly, meadow barley, rose, sedge

Ecological Site

Softscrabble: 025XY012NV
 Cleavage: 025XY017NV
 Ninemile: 025XY023NV
 Inclusion 1: 025XY071NV
 Inclusion 2: none
 Inclusion 3: 025XY004NV
 Inclusion 4: 025XY006NV

900--Roca-Bregar-Linrose association

Composition

Major Components

Roca very cobbly loam, 50 to 75 percent slopes--35 percent
 Bregar very stony loam, 4 to 15 percent slopes--25 percent
 Linrose gravelly loam, 50 to 75 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Rubble land--6 percent
 Inclusion 2: Quomus stony loam, moist, 50 to 75 percent slopes--5 percent
 Inclusion 3: Rock outcrop--3 percent
 Inclusion 4: Cumulic Endoaquolls, loamy-skeletal, mixed, frigid stony loam, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains
Roca--Landform: Mountains; geomorphic position: backslope; aspect: south

Bregar--Landform: Mountains; geomorphic position: summit

Linrose--Landform: Mountains; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Mountains

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Stream terraces

Major Component Description

Roca Series

Elevation: 6,000 to 7,500 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface rock fragments: 2 percent stones and boulders; 35 percent cobbles; 10 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Bregar Series

Elevation: 6,000 to 8,000 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Linrose Series

Elevation: 6,000 to 8,000 feet

Precipitation: About 12 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface rock fragments: 2 percent cobbles; 20 percent gravel

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from sedimentary rocks

Dominant Present Vegetation

Roca: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Bregar: Idaho fescue, black sagebrush, low sagebrush

Linrose: Cusick bluegrass, Idaho fescue, black sagebrush

Inclusion 1: None

Inclusion 2: Idaho fescue, mountain big sagebrush
 Inclusion 3: None
 Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Roca: 024XY028NV
 Bregar: 024XY016NV
 Linrose: 024XY042NV
 Inclusion 1: none
 Inclusion 2: 024XY023NV
 Inclusion 3: none
 Inclusion 4: 025XY003NV

901--Roca-Reluctan association

Composition

Major Components

Roca very cobbly loam, 30 to 50 percent slopes--50 percent
 Reluctan gravelly loam, 30 to 50 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Bregar extremely gravelly loam, 4 to 15 percent slopes--5 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Gowjai very cobbly loam, 30 to 50 percent slopes--3 percent
 Inclusion 4: Gosumi very cobbly loam, 30 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Roca--Landform: Mountains; geomorphic position: backslope; aspect: south
 Reluctan--Landform: Mountains; geomorphic position: backslope; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: summit
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: lower
 Inclusion 4--Landform: Mountains; geomorphic position: shoulder

Major Component Description

Roca Series

Elevation: 6,000 to 7,500 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Reluctan Series

Elevation: 6,000 to 8,000 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Roca: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Reluctan: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 1: Idaho fescue, black sagebrush, low sagebrush
 Inclusion 2: None
 Inclusion 3: Thurber needlegrass, basin big sagebrush, bluebunch wheatgrass
 Inclusion 4: Idaho fescue, bluebunch wheatgrass, low sagebrush

Ecological Site

Roca: 024XY028NV
 Reluctan: 024XY021NV
 Inclusion 1: 024XY016NV
 Inclusion 2: none
 Inclusion 3: 024XY013NV
 Inclusion 4: 024XY027NV

902--Roca-Alyan-Quomus association

Composition

Major Components

Roca very cobbly loam, 15 to 50 percent slopes--35 percent
 Alyan silt loam, 15 to 50 percent slopes--25 percent
 Quomus very fine sandy loam, 8 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Gosumi gravelly loam, 15 to 50 percent slopes--8 percent
 Inclusion 2: Quomus silt loam, moist, 15 to 50 percent slopes--4 percent
 Inclusion 3: Burrita very gravelly loam, 15 to 50 percent slopes--2 percent
 Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Mountains

Roca--Landform: Mountains; geomorphic position: backslope; aspect: south

Alyan--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: north

Quomus--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: shoulder; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north

Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: lower

Inclusion 4--Landform: Mountains

Major Component Description**Roca Series**

Elevation: 6,000 to 7,500 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Alyan Series

Elevation: 5,500 to 7,500 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Quomus Series

Elevation: 5,500 to 6,800 feet

Precipitation: About 10 inches

Air temperature: About 43 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Roca: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Alyan: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Quomus: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 1: Idaho fescue, bluebunch wheatgrass, low sagebrush

Inclusion 2: Idaho fescue, mountain big sagebrush

Inclusion 3: Thurber needlegrass, Wyoming big sagebrush

Inclusion 4: None

Ecological Site

Roca: 024XY028NV

Alyan: 024XY021NV

Quomus: 024XY013NV

Inclusion 1: 024XY027NV

Inclusion 2: 024XY023NV

Inclusion 3: 025XY019NV

Inclusion 4: none

903--Roca-Walti-Reluctan association**Composition****Major Components**

Roca very stony loam, 30 to 50 percent slopes--40 percent

Walti cobbly loam, 30 to 50 percent slopes--30 percent

Reluctan very cobbly loam, 30 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Trunk very cobbly loam, 15 to 50 percent slopes--6 percent

Inclusion 2: Bregar very cobbly loam, 4 to 15 percent slopes--5 percent

Inclusion 3: Rock outcrop--2 percent

Inclusion 4: Cumulic Endoaquolls, coarse-loamy, mixed, frigid stony loam, 4 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Roca--Landform: Mountains; geomorphic position: backslope; aspect: south

Walti--Landform: Mountains; geomorphic position: backslope; shape of slope: convex

Reluctan--Landform: Mountains; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: footslope; position on slope: lower

Inclusion 2--Landform: Mountains; geomorphic position: summit

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Stream terraces

Major Component Description

Roca Series

Elevation: 6,000 to 7,500 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Walti Series

Elevation: 6,000 to 8,000 feet

Precipitation: About 14 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Reluctan Series

Elevation: 6,000 to 8,000 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Roca: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Walti: Idaho fescue, bluebunch wheatgrass, low sagebrush

Reluctan: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush

Inclusion 2: Idaho fescue, black sagebrush, low sagebrush

Inclusion 3: None

Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Roca: 024XY028NV

Walti: 024XY027NV

Reluctan: 024XY021NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY016NV

Inclusion 3: none

Inclusion 4: 025XY003NV

907--Roca-Climine-Rock outcrop association

Composition

Major Components

Roca very gravelly loam, 30 to 50 percent slopes--40 percent

Climine very gravelly loam, 50 to 75 percent slopes--25 percent

Rock outcrop--20 percent

Contrasting Inclusions

Inclusion 1: Burrita very gravelly loam, warm, 15 to 50 percent slopes--5 percent

Inclusion 2: Gowjai gravelly very fine sandy loam, 30 to 50 percent slopes--4 percent

Inclusion 3: Panlee very fine sandy loam, 30 to 50 percent slopes--3 percent

Inclusion 4: Walti cobbly loam, 30 to 50 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains

Roca--Landform: Mountains; geomorphic position: backslope; aspect: south

Climine--Landform: Mountains; geomorphic position: backslope; aspect: north

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; geomorphic position: shoulder; position on slope: lower

Inclusion 2--Landform: Mountains; geomorphic position: footslope; aspect: north

Inclusion 3--Landform: Mountains; geomorphic position: footslope; position on slope: lower; aspect: south

Inclusion 4--Landform: Mountains; geomorphic position: shoulder

Major Component Description

Roca Series

Elevation: 6,000 to 7,500 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Climine Series

Elevation: 5,800 to 7,500 feet

Precipitation: About 12 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 5,800 to 7,500 feet

Dominant Present Vegetation

Roca: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Climine: Idaho fescue, bluebunch wheatgrass, threetip sagebrush
 Rock outcrop: None
 Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 2: Idaho fescue, bluebunch wheatgrass
 Inclusion 3: Thurber needlegrass, big sagebrush, needleandthread
 Inclusion 4: Idaho fescue, bluebunch wheatgrass, low sagebrush

Ecological Site

Roca: 024XY028NV
 Climine: 024XY046NV
 Rock outcrop: None
 Inclusion 1: 024XY035NV
 Inclusion 2: 024XY021NV
 Inclusion 3: 024XY058NV
 Inclusion 4: 024XY027NV

909--Roca-Nomara-Rock outcrop association

Composition

Major Components

Roca very stony loam, 30 to 75 percent slopes--35 percent
 Nomara stony silt loam, 30 to 75 percent slopes--30 percent
 Rock outcrop--20 percent

Contrasting Inclusions

Inclusion 1: Bregar cobbly loam, 30 to 50 percent slopes--7 percent
 Inclusion 2: Udelope very bouldery sandy loam, 15 to 50 percent slopes--5 percent
 Inclusion 3: Layview very cobbly loam, 8 to 15 percent slopes--2 percent
 Inclusion 4: Cumulic Endoaquolls, coarse-loamy, mixed, frigid loam, drained, 0 to 4 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains
 Roca--Landform: Mountains; aspect: south
 Nomara--Landform: Mountains; shape of slope: concave; aspect: north
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; position on slope: upper; shape of slope: convex
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Mountains; geomorphic position: summit
 Inclusion 4--Landform: Drainageways

Major Component Description

Roca Series

Elevation: 5,600 to 7,600 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface layer texture: Very stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Nomara Series

Elevation: 5,600 to 7,600 feet
Precipitation: About 12 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface layer texture: Stony silt loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 5,600 to 7,600 feet

Dominant Present Vegetation

Roca: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Nomara: Idaho fescue, basin wildrye, bluebunch wheatgrass, currant, mountain big sagebrush, serviceberry
 Rock outcrop: None
 Inclusion 1: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush
 Inclusion 2: Idaho fescue, curlleaf mountainmahogany, needlegrass
 Inclusion 3: Idaho fescue
 Inclusion 4: Basin big sagebrush, basin wildrye, rose

Ecological Site

Roca: 024XY028NV
 Nomara: 024XY021NV

Rock outcrop: None
 Inclusion 1: 024XY027NV
 Inclusion 2: 025XY031NV
 Inclusion 3: 024XY016NV
 Inclusion 4: 025XY003NV

911--Barnard-Devada association

Composition

Major Components

Barnard loam, 4 to 15 percent slopes--40 percent
 Barnard cobbly loam, 15 to 30 percent slopes--25 percent
 Devada very cobbly loam, warm, 8 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Reluctan loam, dry, 15 to 50 percent slopes--8 percent
 Inclusion 2: Rio King loam, 2 to 8 percent slopes--2 percent
 Inclusion 3: Walti cobbly loam, 8 to 30 percent slopes--4 percent
 Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, mesic silt loam, drained, 2 to 4 percent slopes--1 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Barnard--Landform: Fan remnants; geomorphic position: summit; position on slope: lower; shape of slope: convex
 Barnard--Landform: Fan remnants; geomorphic position: backslope; shape of slope: plane; aspect: south
 Devada--Landform: Hills; geomorphic position: shoulder; position on slope: upper
 Inclusion 1--Landform: Fan remnants; geomorphic position: backslope; aspect: north
 Inclusion 2--Landform: Drainageways
 Inclusion 3--Landform: Fan remnants; geomorphic position: backslope
 Inclusion 4--Landform: Drainageways

Major Component Description

Barnard Series

Elevation: 5,200 to 5,600 feet
Precipitation: About 12 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface rock fragments: 5 percent gravel
Surface layer texture: Loam
Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Barnard Series

Elevation: 5,200 to 5,600 feet
Precipitation: About 12 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Devada Series

Elevation: 5,200 to 5,600 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Barnard: Big sagebrush, bluebunch wheatgrass
 Barnard: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Devada: Thurber needlegrass, Webber ricegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 1: Idaho fescue, Wyoming big sagebrush, bluegrass
 Inclusion 2: Nevada bluegrass, basin big sagebrush, basin wildrye
 Inclusion 3: Idaho fescue, Thurber needlegrass, bluebunch wheatgrass, bluegrass, low sagebrush
 Inclusion 4: Nevada bluegrass, alpine timothy, basin wildrye, mat muhly, meadow barley, sedge

Ecological Site

Barnard: 024XY013NV
 Barnard: 024XY028NV
 Devada: 024XY018NV
 Inclusion 1: 024XY033NV
 Inclusion 2: 025XY003NV
 Inclusion 3: 024XY027NV
 Inclusion 4: 025XY006NV

921--Walti-Sumine-Reluctan association

Composition

Major Components

Walti cobbly loam, 8 to 30 percent slopes--45 percent

Sumine gravelly loam, 15 to 50 percent slopes--20 percent

Reluctan sandy loam, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Gowjai gravelly loam, 8 to 30 percent slopes--5 percent

Inclusion 2: Rock outcrop--5 percent

Inclusion 3: Bregar very gravelly loam, dry, 2 to 8 percent slopes--3 percent

Inclusion 4: Cumulic Haploxerolls, loamy-skeletal, mixed, frigid gravelly loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Walti--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: convex

Sumine--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south

Reluctan--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: footslope

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Stream terraces

Major Component Description

Walti Series

Elevation: 6,000 to 8,000 feet

Precipitation: About 14 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 15 percent cobbles; 15 percent gravel

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Sumine Series

Elevation: 6,000 to 8,000 feet

Precipitation: About 12 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Reluctan Series

Elevation: 6,000 to 8,000 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent cobbles; 5 percent gravel

Surface layer texture: Sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Walti: Idaho fescue, Thurber needlegrass, low sagebrush

Sumine: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Reluctan: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 1: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 2: None

Inclusion 3: Idaho fescue, black sagebrush, low sagebrush

Inclusion 4: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Walti: 024XY027NV

Sumine: 024XY029NV

Reluctan: 024XY021NV

Inclusion 1: 025XY014NV

Inclusion 2: none

Inclusion 3: 024XY016NV

Inclusion 4: 025XY003NV

922--Walti-Reluctan-Tusel association

Composition

Major Components

Walti gravelly loam, 4 to 15 percent slopes--40 percent

Reluctan gravelly loam, cool, 2 to 8 percent slopes--30 percent

Tusel gravelly loam, 8 to 15 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Anawalt very cobbly loam, 2 to 8 percent slopes--7 percent

Inclusion 2: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, 0 to 4 percent slopes--4 percent

Inclusion 3: Rock outcrop--2 percent

Inclusion 4: Ninemile stony loam, dry, 2 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus

Walti--Landform: Plateaus; geomorphic position: backslope; aspect: south

Reluctan--Landform: Plateaus; geomorphic position: summit

Tusel--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Plateaus; geomorphic position: footslope

Inclusion 2--Landform: Flood plains

Inclusion 3--Landform: Plateaus

Inclusion 4--Landform: Plateaus; geomorphic position: summit; position on slope: upper

Major Component Description

Walti Series

Elevation: 6,400 to 7,200 feet

Precipitation: About 14 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Reluctan Series

Elevation: 6,400 to 7,200 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Tusel Series

Elevation: 6,400 to 7,200 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Walti: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush

Reluctan: Idaho fescue, bluegrass, mountain big sagebrush, needlegrass, snowberry

Tusel: Currant, mountain big sagebrush, mountain brome, needlegrass, snowberry

Inclusion 1: Sandberg bluegrass, bluebunch wheatgrass, low sagebrush

Inclusion 2: Bluegrass, rush, sedge, tufted hairgrass

Inclusion 3: None

Inclusion 4: Idaho fescue, low sagebrush

Ecological Site

Walti: 023XY017NV

Reluctan: 023XY058NV

Tusel: 023XY065NV

Inclusion 1: 023XY031NV

Inclusion 2: 023XY025NV

Inclusion 3: none

Inclusion 4: 023XY008NV

923--Walti-Tusel-Anawalt association

Composition

Major Components

Walti gravelly loam, 15 to 30 percent slopes--40 percent

Tusel gravelly loam, 15 to 30 percent slopes--35 percent

Anawalt very gravelly loam, 15 to 50 percent slopes--10 percent

Contrasting Inclusions

Inclusion 1: Menbo very cobbly loam, warm, 15 to 50 percent slopes--6 percent

Inclusion 2: Rock outcrop--4 percent

Inclusion 3: Cumulic Endoaquolls, fine-loamy, mixed, frigid loam, 2 to 8 percent slopes--2 percent

Inclusion 4: Ninemile very cobbly loam, dry, 8 to 30 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains

Walti--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Tusel--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Anawalt--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: south

Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Stream terraces

Inclusion 4--Landform: Mountains

Major Component Description**Walti Series***Elevation:* 5,800 to 7,000 feet*Precipitation:* About 14 inches*Air temperature:* About 44 degrees*Frost-free season:* About 80 days*Surface layer texture:* Gravelly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from volcanic rocks**Tusel Series***Elevation:* 5,800 to 7,000 feet*Precipitation:* About 16 inches*Air temperature:* About 41 degrees*Frost-free season:* About 50 days*Surface layer texture:* Gravelly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks**Anawalt Series***Elevation:* 5,800 to 7,000 feet*Precipitation:* About 11 inches*Air temperature:* About 44 degrees*Frost-free season:* About 80 days*Surface rock fragments:* 5 percent cobbles; 45 percent gravel*Surface layer texture:* Very gravelly loam*Drainage class:* Well drained*Dominant parent material:* Residuum derived from volcanic rocks**Dominant Present Vegetation**

Walti: Idaho fescue, bluebunch wheatgrass, low sagebrush

Tusel: Mountain brome, needlegrass

Anawalt: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 1: Antelope bitterbrush, basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Inclusion 2: None

Inclusion 3: Bluegrass, iris, tufted hairgrass

Inclusion 4: Bluegrass, low sagebrush

Ecological Site

Walti: 023XY017NV

Tusel: 023XY065NV

Anawalt: 023XY031NV

Inclusion 1: 023XY018NV

Inclusion 2: none

Inclusion 3: 023XY025NV

Inclusion 4: 023XY008NV

924--Walti-Tusk-Alyan association**Composition****Major Components**

Walti gravelly loam, 4 to 15 percent slopes--40 percent

Tusk loam, 15 to 50 percent slopes--25 percent

Alyan cobbly loam, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Anawalt very gravelly loam, 4 to 8 percent slopes--8 percent

Inclusion 2: Sumine cobbly loam, 30 to 50 percent slopes--4 percent

Inclusion 3: Rock outcrop--2 percent

Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid loam, 0 to 4 percent slopes--1 percent

Map Unit Setting*Landscape position:* Plateaus

Walti--Landform: Plateaus; geomorphic position: backslope; shape of slope: convex

Tusk--Landform: Plateaus; geomorphic position: backslope; aspect: north

Alyan--Landform: Plateaus; geomorphic position: summit

Inclusion 1--Landform: Plateaus; geomorphic position: footslope; shape of slope: convex; aspect: south

Inclusion 2--Landform: Plateaus; geomorphic position: backslope; aspect: south

Inclusion 3--Landform: Plateaus

Inclusion 4--Landform: Stream terraces

Major Component Description**Walti Series***Elevation:* 6,000 to 6,700 feet*Precipitation:* About 14 inches*Air temperature:* About 44 degrees*Frost-free season:* About 80 days*Surface layer texture:* Gravelly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from volcanic rocks**Tusk Series***Elevation:* 6,000 to 6,700 feet*Precipitation:* About 14 inches*Air temperature:* About 43 degrees*Frost-free season:* About 70 days

Surface rock fragments: 5 percent cobbles; 20 percent gravel

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Alyan Series

Elevation: 6,000 to 6,700 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Walti: Idaho fescue, bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush

Tusk: Idaho fescue, bluebunch wheatgrass, bluegrass, mountain big sagebrush

Alyan: Thurber needlegrass, basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Inclusion 1: Sandberg bluegrass, Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 2: Bluebunch wheatgrass, mountain big sagebrush

Inclusion 3: None

Inclusion 4: Bluegrass, rush, sedge, tufted hairgrass

Ecological Site

Walti: 023XY017NV

Tusk: 023XY007NV

Alyan: 023XY041NV

Inclusion 1: 023XY031NV

Inclusion 2: 023XY016NV

Inclusion 3: none

Inclusion 4: 023XY025NV

930--Tenabo-Oxcorel association

Composition

Major Components

Tenabo cobbly very fine sandy loam, 4 to 15 percent slopes--50 percent

Oxcorel very stony loam, 15 to 30 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Lunder cobbly fine sandy loam, dry, 15 to 30 percent slopes--8 percent

Inclusion 2: Snapp very gravelly fine sandy loam, dry, 2 to 4 percent slopes--5 percent

Inclusion 3: Rodock loam, moist, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Tenabo--Landform: Fan remnants; geomorphic position: summit

Oxcorel--Landform: Fan remnants; geomorphic position: backslope

Inclusion 1--Landform: Partial ballenas; position on slope: upper

Inclusion 2--Landform: Fan remnants; position on slope: lower

Inclusion 3--Landform: Drainageways

Major Component Description

Tenabo Series

Elevation: 4,300 to 4,600 feet

Precipitation: About 7 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface rock fragments: 10 percent cobbles; 15 percent gravel

Surface layer texture: Cobbly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Oxcorel Series

Elevation: 4,300 to 4,600 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 3 percent stones and boulders; 5 percent cobbles; 20 percent gravel

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Tenabo: Bud sagebrush, shadscale

Oxcorel: Bud sagebrush, shadscale

Inclusion 1: Sandberg bluegrass, spiny hopsage

Inclusion 2: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Tenabo: 024XY002NV

Oxcorel: 024XY002NV
Inclusion 1: 023XY047NV
Inclusion 2: 024XY020NV
Inclusion 3: 025XY003NV

940--Soughe-Soughe, very steep-Rock outcrop association

Composition

Major Components

Soughe very stony loam, south, 30 to 50 percent slopes--40 percent
Soughe very cobbly loam, south, 50 to 75 percent slopes--30 percent
Rock outcrop--15 percent

Contrasting Inclusions

Inclusion 1: Puett very gravelly loam, 15 to 50 percent slopes--10 percent
Inclusion 2: Rubble land, 15 to 75 percent slopes--3 percent
Inclusion 3: Clementine loam, drained, 0 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
Soughe--Landform: Plateaus; geomorphic position: backslope; position on slope: lower
Soughe--Landform: Plateaus; geomorphic position: backslope; position on slope: upper
Rock outcrop--Landform: Plateaus
Inclusion 1--Landform: Plateaus; geomorphic position: backslope
Inclusion 2--Landform: Mountains
Inclusion 3--Landform: Stream terraces

Major Component Description

Soughe Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Soughe Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days

Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 5,000 to 5,800 feet

Dominant Present Vegetation

Soughe: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
Soughe: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
Rock outcrop: None
Inclusion 1: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush
Inclusion 2: None
Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Soughe: 025XY015NV
Soughe: 025XY015NV
Rock outcrop: None
Inclusion 1: 024XY045NV
Inclusion 2: none
Inclusion 3: 025XY003NV

941--Soughe-Rock outcrop association

Composition

Major Components

Soughe very cobbly loam, 15 to 30 percent slopes--60 percent
Rock outcrop--25 percent

Contrasting Inclusions

Inclusion 1: Puett very gravelly loam, 30 to 50 percent slopes--10 percent
Inclusion 2: McConnel gravelly loam, 0 to 4 percent slopes, rarely flooded--3 percent
Inclusion 3: Kingsriver loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
Soughe--Landform: Plateaus; geomorphic position: summit
Rock outcrop--Landform: Plateaus
Inclusion 1--Landform: Plateaus; geomorphic position: backslope; shape of slope: convex
Inclusion 2--Landform: Drainageways
Inclusion 3--Landform: Stream terraces

Major Component Description**Soughe Series***Elevation:* 4,600 to 5,000 feet*Precipitation:* About 10 inches*Air temperature:* About 46 degrees*Frost-free season:* About 90 days*Surface layer texture:* Very cobbly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks**Rock outcrop Miscellaneous Area***Elevation:* 4,600 to 5,000 feet**Dominant Present Vegetation**

Soughe: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Rock outcrop: None

Inclusion 1: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush

Inclusion 2: Thurber needlegrass, Wyoming big sagebrush

Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Soughe: 025XY019NV

Rock outcrop: None

Inclusion 1: 024XY045NV

Inclusion 2: 025XY019NV

Inclusion 3: 025XY003NV

942--Soughe-Ninemile-Rock outcrop association**Composition****Major Components**

Soughe very stony loam, south, 30 to 50 percent slopes--45 percent

Ninemile very cobbly loam, 30 to 50 percent slopes--20 percent

Rock outcrop--20 percent

Contrasting Inclusions

Inclusion 1: Kingsriver loam, drained, 0 to 2 percent slopes--10 percent

Inclusion 2: Alyan very stony loam, 8 to 30 percent slopes--3 percent

Inclusion 3: Madeline very stony loam, 15 to 30 percent slopes--2 percent

Map Unit Setting*Landscape position:* Plateaus

Soughe--Landform: Plateaus; geomorphic position: backslope; aspect: south

Ninemile--Landform: Plateaus; geomorphic position: backslope; aspect: north

Rock outcrop--Landform: Plateaus

Inclusion 1--Landform: Stream terraces

Inclusion 2--Landform: Plateaus; geomorphic position: footslope

Inclusion 3--Landform: Plateaus; geomorphic position: backslope; position on slope: upper

Major Component Description**Soughe Series***Elevation:* 4,800 to 6,000 feet*Precipitation:* About 10 inches*Air temperature:* About 46 degrees*Frost-free season:* About 90 days*Surface layer texture:* Very stony loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks**Ninemile Series***Elevation:* 5,500 to 6,200 feet*Precipitation:* About 14 inches*Air temperature:* About 43 degrees*Frost-free season:* About 90 days*Surface layer texture:* Very cobbly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from volcanic rocks**Rock outcrop Miscellaneous Area***Elevation:* 4,600 to 5,000 feet**Dominant Present Vegetation**

Soughe: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush

Rock outcrop: None

Inclusion 1: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Inclusion 2: Idaho fescue, big sagebrush, bluebunch wheatgrass

Inclusion 3: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush

Ecological Site

Soughe: 025XY015NV

Ninemile: 025XY017NV

Rock outcrop: None

Inclusion 1: 025XY003NV

Inclusion 2: 025XY027NV

Inclusion 3: 025XY012NV

943--Soughe-Vanwyper association**Composition****Major Components**

Soughe cobbly loam, 15 to 30 percent slopes--35 percent

Vanwyper very cobbly loam, 30 to 50 percent slopes--30 percent

Soughe very cobbly loam, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Bliss fine sandy loam, 2 to 8 percent slopes--5 percent

Inclusion 2: Flue very fine sandy loam, dry, 2 to 4 percent slopes--5 percent

Inclusion 3: Clementine silt loam, drained, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Plateaus

Soughe--Landform: Plateaus; geomorphic position: backslope; aspect: north

Vanwyper--Landform: Plateaus; geomorphic position: backslope; aspect: south

Soughe--Landform: Plateaus; geomorphic position: summit

Inclusion 1--Landform: Fan remnants; position on slope: lower

Inclusion 2--Landform: Fan remnants; geomorphic position: summit; position on slope: lower

Inclusion 3--Landform: Stream terraces

Major Component Description**Soughe Series**

Elevation: 5,000 to 6,000 feet

Precipitation: About 10 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Vanwyper Series

Elevation: 5,000 to 6,000 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Soughe Series

Elevation: 5,500 to 6,000 feet

Precipitation: About 10 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Soughe: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Soughe: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Soughe: 025XY019NV

Vanwyper: 025XY015NV

Soughe: 025XY019NV

Inclusion 1: 024XY005NV

Inclusion 2: 024XY020NV

Inclusion 3: 025XY003NV

944--Soughe-Vanwyper-Rock outcrop association**Composition****Major Components**

Soughe extremely gravelly fine sandy loam, 15 to 50 percent slopes--40 percent

Vanwyper very cobbly loam, 30 to 50 percent slopes--35 percent

Rock outcrop--10 percent

Contrasting Inclusions

Inclusion 1: Midraw cobbly loam, 4 to 15 percent slopes--7 percent

Inclusion 2: Vanwyper cobbly loam, 15 to 50 percent slopes--5 percent

Inclusion 3: Aeric Fluvaquents very stony sandy loam, 0 to 2 percent slopes--1 percent

Inclusion 4: Connel very cobbly loam, moist, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Soughe--Landform: Mountains; geomorphic position: backslope; aspect: north
 Vanwyper--Landform: Mountains; geomorphic position: backslope; aspect: south
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; geomorphic position: summit
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: north
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Fan remnants; position on slope: lower

Major Component Description**Soughe Series**

Elevation: 5,000 to 5,900 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Extremely gravelly fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Vanwyper Series

Elevation: 5,000 to 5,900 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface rock fragments: 2 percent stones and boulders; 30 percent cobbles; 15 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 5,000 to 5,900 feet

Dominant Present Vegetation

Soughe: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Rock outcrop: None
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Thurber needlegrass, Wyoming big sagebrush
 Inclusion 3: Alkali bluegrass, inland saltgrass

Inclusion 4: Wyoming big sagebrush

Ecological Site

Soughe: 024XY035NV
 Vanwyper: 024XY028NV
 Rock outcrop: None
 Inclusion 1: 024XY005NV
 Inclusion 2: 025XY019NV
 Inclusion 3: 024XY043NV
 Inclusion 4: 024XY005NV

946--Soughe-Rubble land complex, 30 to 75 percent slopes**Composition****Major Components**

Soughe very cobbly loam, 30 to 75 percent slopes--50 percent
 Rubble land fragmental material, 30 to 75 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Zymans very stony loam, 30 to 50 percent slopes--4 percent
 Inclusion 2: Anawalt very cobbly loam, cold, 8 to 30 percent slopes--3 percent
 Inclusion 3: Xipe very cobbly loam, 15 to 30 percent slopes--2 percent
 Inclusion 4: Menbo very stony loam, cool, 30 to 75 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains
 Soughe--Landform: Mountains; geomorphic position: backslope; aspect: south
 Rubble land--Landform: Mountains
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: north
 Inclusion 2--Landform: Mountains; geomorphic position: summit; position on slope: upper
 Inclusion 3--Landform: Flood plains
 Inclusion 4--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: north

Major Component Description**Soughe Series**

Elevation: 4,600 to 7,000 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface rock fragments: 2 percent stones and boulders; 30 percent cobbles; 20 percent gravel

Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Rubble land Miscellaneous Area

Elevation: 4,600 to 7,000 feet
Surface layer texture: Fragmental material
Drainage class: Excessively drained

Dominant Present Vegetation

Soughe: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Rubble land: None
 Inclusion 1: Basin wildrye, big sagebrush, bluebunch wheatgrass
 Inclusion 2: Idaho fescue, Sandberg bluegrass, low sagebrush
 Inclusion 3: Bluegrass, rose, sedge, tufted hairgrass, willow
 Inclusion 4: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, snowberry

Ecological Site

Soughe: 024XY035NV
 Rubble land: None
 Inclusion 1: 024XY013NV
 Inclusion 2: 024XY016NV
 Inclusion 3: 025XY005NV
 Inclusion 4: 024XY021NV

947--Soughe association

Composition

Major Components

Soughe very cobbly loam, 8 to 30 percent slopes--45 percent
 Soughe cobbly loam, 15 to 50 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--7 percent
 Inclusion 2: Hoot very gravelly loam, 8 to 30 percent slopes--4 percent
 Inclusion 3: Quomus very cobbly very fine sandy loam, 15 to 50 percent slopes--3 percent
 Inclusion 4: Rodock very stony loam, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains
 Soughe--Landform: Mountains; geomorphic position: summit; aspect: north

Soughe--Landform: Mountains; geomorphic position: backslope; aspect: south
 Inclusion 1--Landform: Mountains
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 4--Landform: Drainageways

Major Component Description

Soughe Series

Elevation: 4,500 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface rock fragments: 15 percent cobbles; 20 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Soughe Series

Elevation: 4,500 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Soughe: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Soughe: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Inclusion 1: None
 Inclusion 2: Bud sagebrush, shadscale
 Inclusion 3: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 4: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Soughe: 024XY005NV
 Soughe: 024XY035NV
 Inclusion 1: none
 Inclusion 2: 024XY025NV

Inclusion 3: 024XY013NV
Inclusion 4: 025XY003NV

954--Puffer-Xine-Rock outcrop association

Composition

Major Components

Puffer very cobbly loam, 50 to 75 percent slopes--40 percent
Xine gravelly loam, 50 to 75 percent slopes--25 percent
Rock outcrop--20 percent

Contrasting Inclusions

Inclusion 1: Linrose gravelly loam, 50 to 75 percent slopes--8 percent
Inclusion 2: Mulhop very cobbly loam, 50 to 75 percent slopes--7 percent

Map Unit Setting

Landscape position: Mountains

Puffer--Landform: Mountains; geomorphic position: backslope; aspect: south

Xine--Landform: Mountains; geomorphic position: backslope; aspect: north

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: south

Major Component Description

Puffer Series

Elevation: 5,500 to 6,500 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface rock fragments: 2 percent stones and boulders; 20 percent cobbles; 25 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from sedimentary rocks

Xine Series

Elevation: 5,800 to 6,800 feet

Precipitation: About 13 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent cobbles; 25 percent gravel

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from limestone and dolomite

Rock outcrop Miscellaneous Area

Elevation: 5,500 to 6,800 feet

Dominant Present Vegetation

Puffer: Indian ricegrass, Thurber needlegrass, black sagebrush

Xine: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Rock outcrop: None

Inclusion 1: Idaho fescue, black sagebrush

Inclusion 2: Utah juniper, black sagebrush

Ecological Site

Puffer: 024XY030NV

Xine: 024XY021NV

Rock outcrop: None

Inclusion 1: 024XY042NV

Inclusion 2: 025XY060NV

955--Puffer-Soughe-Rock outcrop association

Composition

Major Components

Puffer very cobbly loam, 30 to 50 percent slopes--45 percent

Soughe very stony loam, 30 to 50 percent slopes--25 percent

Rock outcrop--15 percent

Contrasting Inclusions

Inclusion 1: Vanwyper cobbly loam, south, 15 to 30 percent slopes--7 percent

Inclusion 2: Flue gravelly loam, 4 to 8 percent slopes--4 percent

Inclusion 3: Lithic Xeric Torriorthents, loamy-skeletal, mixed (calcareous), mesic stony loam, 15 to 30 percent slopes--2 percent

Inclusion 4: Gowjai fine sandy loam, 30 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains and intermontane basins

Puffer--Landform: Mountains; geomorphic position: backslope; aspect: south

Soughe--Landform: Mountains; geomorphic position: backslope; aspect: north

Rock outcrop--Landform: Mountains

- Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: south
- Inclusion 2--Landform: Fan remnants; position on slope: lower
- Inclusion 3--Landform: Mountains; geomorphic position: shoulder; position on slope: upper; aspect: south
- Inclusion 4--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north

Major Component Description

Puffer Series

- Elevation:* 5,500 to 6,500 feet
- Precipitation:* About 9 inches
- Air temperature:* About 47 degrees
- Frost-free season:* About 100 days
- Surface layer texture:* Very cobbly loam
- Drainage class:* Well drained
- Dominant parent material:* Residuum derived from sedimentary rocks

Soughe Series

- Elevation:* 5,500 to 6,500 feet
- Precipitation:* About 10 inches
- Air temperature:* About 46 degrees
- Frost-free season:* About 90 days
- Surface layer texture:* Very stony loam
- Drainage class:* Well drained
- Dominant parent material:* Residuum and colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

- Elevation:* 5,500 to 6,500 feet

Dominant Present Vegetation

- Puffer: Indian ricegrass, Thurber needlegrass, black sagebrush
- Soughe: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
- Rock outcrop: None
- Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
- Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush
- Inclusion 3: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush, spiny hopsage
- Inclusion 4: Idaho fescue, Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Ecological Site

- Puffer: 024XY030NV

- Soughe: 025XY019NV
- Rock outcrop: None
- Inclusion 1: 024XY028NV
- Inclusion 2: 024XY005NV
- Inclusion 3: 024XY045NV
- Inclusion 4: 025XY014NV

960--Zevadez-Wieland-Kelk association

Composition

Major Components

- Zevadez very fine sandy loam, 0 to 2 percent slopes--45 percent
- Wieland loam, 0 to 2 percent slopes--25 percent
- Kelk very fine sandy loam, 0 to 2 percent slopes--15 percent

Contrasting Inclusions

- Inclusion 1: Piline silty clay, 0 to 2 percent slopes--10 percent
- Inclusion 2: Connel very fine sandy loam, 0 to 2 percent slopes, rarely flooded--5 percent

Map Unit Setting

- Landscape position:* Plateaus
- Zevadez--Landform: Plateaus; geomorphic position: summit; position on slope: lower
- Wieland--Landform: Plateaus; geomorphic position: summit; position on slope: upper
- Kelk--Landform: Stream terraces
- Inclusion 1--Landform: Basin floors; position on slope: lower
- Inclusion 2--Landform: Stream terraces; position on slope: upper

Major Component Description

Zevadez Series

- Elevation:* 5,000 to 5,800 feet
- Precipitation:* About 9 inches
- Air temperature:* About 47 degrees
- Frost-free season:* About 100 days
- Surface layer texture:* Very fine sandy loam
- Drainage class:* Well drained
- Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash

Wieland Series

- Elevation:* 5,000 to 5,800 feet
- Precipitation:* About 9 inches
- Air temperature:* About 48 degrees
- Frost-free season:* About 100 days
- Surface layer texture:* Loam

Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Kelk Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Zevadez: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Wieland: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush
 Kelk: Thurber needlegrass, Wyoming big sagebrush, basin wildrye
 Inclusion 1: Mat muhly
 Inclusion 2: Thurber needlegrass, Wyoming big sagebrush

Ecological Site

Zevadez: 025XY019NV
 Wieland: 025XY019NV
 Kelk: 025XY019NV
 Inclusion 1: 025XY048NV
 Inclusion 2: 025XY019NV

962--Zevadez-Vanwyper association

Composition

Major Components

Zevadez loam, 4 to 15 percent slopes--55 percent
 Vanwyper gravelly loam, 15 to 50 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Pocan loam, 8 to 30 percent slopes--7 percent
 Inclusion 2: Gowjai gravelly loam, 15 to 50 percent slopes--4 percent
 Inclusion 3: Enko loam, 2 to 8 percent slopes--3 percent
 Inclusion 4: Clementine gravelly loam, drained, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Zevadez--Landform: Fan remnants

Vanwyper--Landform: Hills; geomorphic position: backslope
 Inclusion 1--Landform: Pediments; geomorphic position: backslope; aspect: north
 Inclusion 2--Landform: Hills; geomorphic position: footslope; aspect: north
 Inclusion 3--Landform: Inset fans; position on slope: lower
 Inclusion 4--Landform: Stream terraces

Major Component Description

Zevadez Series

Elevation: 4,800 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Vanwyper Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Zevadez: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Vanwyper: Sandberg bluegrass, Wyoming big sagebrush
 Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush
 Inclusion 2: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 3: Sandberg bluegrass, Wyoming big sagebrush
 Inclusion 4: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Zevadez: 024XY005NV
 Vanwyper: 024XY005NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 025XY014NV
 Inclusion 3: 024XY005NV
 Inclusion 4: 025XY003NV

963--Zevadez-McConnel association**Composition****Major Components**

Zevadez gravelly loam, 2 to 8 percent slopes--50 percent

McConnel gravelly fine sandy loam, 2 to 8 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Rodock cobbly loam, 2 to 8 percent slopes, occasionally flooded--5 percent

Inclusion 2: Connel loam, slightly saline, 0 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Zevadez--Landform: Fan remnants

McConnel--Landform: Inset fans

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Fan skirts; position on slope: lower

Major Component Description**Zevadez Series**

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

McConnel Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 5 percent gravel

Surface layer texture: Gravelly fine sandy loam

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Zevadez: Sandberg bluegrass, Wyoming big sagebrush

McConnel: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Basin big sagebrush, basin wildrye

Inclusion 2: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail

Ecological Site

Zevadez: 024XY005NV

McConnel: 024XY020NV

Inclusion 1: 025XY003NV

Inclusion 2: 024XY022NV

964--Zevadez loam, 2 to 4 percent slopes**Composition****Major Components**

Zevadez loam, 2 to 4 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Rodock loam, slightly saline, 0 to 2 percent slopes--5 percent

Inclusion 2: Clurde loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Zevadez--Landform: Fan remnants

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Inset fans

Major Component Description**Zevadez Series**

Elevation: 4,200 to 4,400 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Zevadez: Wyoming big sagebrush

Inclusion 1: Basin big sagebrush, basin wildrye, black greasewood

Inclusion 2: Basin big sagebrush

Ecological Site

Zevadez: 024XY005NV

Inclusion 1: 024XY006NV

Inclusion 2: 024XY006NV

970--Gosumi-Walti association**Composition****Major Components**

Gosumi very cobbly loam, 30 to 50 percent slopes--

60 percent

Walti cobbly loam, 4 to 8 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Fluvaquentic Haploxerolls, loamy-skeletal, mixed, frigid stony loam, 2 to 8 percent slopes--5 percent

Inclusion 2: Cumulic Endoaquolls, fine, montmorillonitic, frigid stony silty clay loam, 0 to 2 percent slopes--4 percent

Inclusion 3: Gowjai cobbly loam, 30 to 50 percent slopes--4 percent

Inclusion 4: Bregar very cobbly loam, 4 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Gosumi--Landform: Mountains; geomorphic position: backslope; shape of slope: convex

Walti--Landform: Mountains; geomorphic position: summit

Inclusion 1--Landform: Stream terraces

Inclusion 2--Landform: Stream terraces

Inclusion 3--Landform: Mountains; geomorphic position: backslope; shape of slope: concave

Inclusion 4--Landform: Mountains

Major Component Description

Gosumi Series

Elevation: 6,000 to 7,000 feet

Precipitation: About 12 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Walti Series

Elevation: 6,000 to 7,500 feet

Precipitation: About 14 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Gosumi: Idaho fescue, bluebunch wheatgrass, low sagebrush

Walti: Idaho fescue, bluebunch wheatgrass, low sagebrush

Inclusion 1: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Inclusion 2: Nevada bluegrass, alpine timothy, sedge

Inclusion 3: Idaho fescue, mountain big sagebrush

Inclusion 4: Idaho fescue, black sagebrush, low sagebrush

Ecological Site

Gosumi: 024XY027NV

Walti: 024XY027NV

Inclusion 1: 025XY003NV

Inclusion 2: 025XY006NV

Inclusion 3: 024XY021NV

Inclusion 4: 024XY016NV

980--Snowmore association

Composition

Major Components

Snowmore cobbly fine sandy loam, 2 to 4 percent slopes--60 percent

Snowmore very fine sandy loam, 0 to 2 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Dewar gravelly very fine sandy loam, 0 to 2 percent slopes--8 percent

Inclusion 2: Dewar cobbly loam, 4 to 8 percent slopes--5 percent

Inclusion 3: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Plateaus

Snowmore--Landform: Plateaus; geomorphic position: backslope

Snowmore--Landform: Plateaus; geomorphic position: summit

Inclusion 1--Landform: Plateaus; geomorphic position: summit; position on slope: lower

Inclusion 2--Landform: Plateaus; geomorphic position: footslope

Inclusion 3--Landform: Plateaus

Major Component Description

Snowmore Series

Elevation: 5,000 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Cobbly fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Snowmore Series*Elevation:* 5,000 to 5,600 feet*Precipitation:* About 9 inches*Air temperature:* About 47 degrees*Frost-free season:* About 100 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Residuum derived from volcanic rocks***Dominant Present Vegetation***

Snowmore: Indian ricegrass, Thurber needlegrass,

Wyoming big sagebrush

Snowmore: Indian ricegrass, Thurber needlegrass,

Wyoming big sagebrush

Inclusion 1: Indian ricegrass, Thurber needlegrass,

Wyoming big sagebrush

Inclusion 2: Indian ricegrass, Thurber needlegrass,

Wyoming big sagebrush

Inclusion 3: None

Ecological Site

Snowmore: 025XY019NV

Snowmore: 025XY019NV

Inclusion 1: 025XY019NV

Inclusion 2: 025XY019NV

Inclusion 3: none

981--Snowmore-Zevadez association***Composition*****Major Components**

Snowmore very fine sandy loam, 0 to 2 percent slopes--55 percent

Zevadez very fine sandy loam, 0 to 2 percent slopes--25 percent

Snowmore cobbly fine sandy loam, 2 to 4 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Dewar cobbly loam, 4 to 8 percent slopes--5 percent

Map Unit Setting*Landscape position:* Plateaus

Snowmore--Landform: Plateaus; geomorphic position: summit; position on slope: upper

Zevadez--Landform: Plateaus; geomorphic position: summit; position on slope: lower

Snowmore--Landform: Plateaus; geomorphic position: backslope

Inclusion 1--Landform: Plateaus; geomorphic position: footslope

Major Component Description**Snowmore Series***Elevation:* 5,000 to 5,800 feet*Precipitation:* About 9 inches*Air temperature:* About 47 degrees*Frost-free season:* About 100 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Residuum derived from volcanic rocks**Zevadez Series***Elevation:* 5,000 to 5,600 feet*Precipitation:* About 9 inches*Air temperature:* About 47 degrees*Frost-free season:* About 100 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash**Snowmore Series***Elevation:* 5,000 to 5,800 feet*Precipitation:* About 9 inches*Air temperature:* About 47 degrees*Frost-free season:* About 100 days*Surface layer texture:* Cobbly fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Residuum derived from volcanic rocks***Dominant Present Vegetation***

Snowmore: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Zevadez: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Snowmore: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush

Inclusion 1: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Snowmore: 025XY019NV

Zevadez: 025XY019NV

Snowmore: 025XY019NV

Inclusion 1: 025XY019NV

983--Snowmore-Devada association***Composition*****Major Components**

Snowmore very fine sandy loam, 2 to 8 percent slopes--45 percent

Devada very cobbly very fine sandy loam, 4 to 15 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Boger very fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 2: Devada cobbly very fine sandy loam, 2 to 4 percent slopes--5 percent

Inclusion 3: Burrita very cobbly very fine sandy loam, south, 15 to 50 percent slopes--5 percent

Map Unit Setting

Landscape position: Plateaus

Snowmore--Landform: Plateaus; geomorphic position: summit

Devada--Landform: Plateaus; geomorphic position: backslope

Inclusion 1--Landform: Plateaus; position on slope: lower

Inclusion 2--Landform: Plateaus; geomorphic position: shoulder; position on slope: upper

Inclusion 3--Landform: Plateaus; geomorphic position: backslope; position on slope: lower; aspect: south

Major Component Description

Snowmore Series

Elevation: 5,000 to 6,000 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Devada Series

Elevation: 5,000 to 6,000 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Snowmore: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Devada: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 1: Wyoming big sagebrush

Inclusion 2: Sandberg bluegrass, bluebunch

wheatgrass, low sagebrush

Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Ecological Site

Snowmore: 025XY019NV

Devada: 025XY022NV

Inclusion 1: 024XY005NV

Inclusion 2: 025XY018NV

Inclusion 3: 025XY015NV

984--Snowmore-Vanwyper-Devada association

Composition

Major Components

Snowmore very fine sandy loam, 2 to 8 percent slopes--45 percent

Vanwyper very cobbly loam, 15 to 50 percent slopes--30 percent

Devada cobbly very fine sandy loam, 2 to 4 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--5 percent

Inclusion 2: Boger gravelly very fine sandy loam, 2 to 8 percent slopes--3 percent

Inclusion 3: Clementine silt loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus

Snowmore--Landform: Plateaus; geomorphic position: backslope; aspect: north

Vanwyper--Landform: Plateaus; geomorphic position: backslope; aspect: south

Devada--Landform: Plateaus; geomorphic position: summit

Inclusion 1--Landform: Plateaus

Inclusion 2--Landform: Plateaus; geomorphic position: shoulder

Inclusion 3--Landform: Stream terraces

Major Component Description

Snowmore Series

Elevation: 5,000 to 6,000 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Vanwyper Series*Elevation:* 5,000 to 6,000 feet*Precipitation:* About 10 inches*Air temperature:* About 47 degrees*Frost-free season:* About 90 days*Surface layer texture:* Very cobbly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks**Devada Series***Elevation:* 5,000 to 6,000 feet*Precipitation:* About 10 inches*Air temperature:* About 45 degrees*Frost-free season:* About 90 days*Surface layer texture:* Cobbly very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Residuum derived from volcanic rocks***Dominant Present Vegetation***

Snowmore: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Devada: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 1: None

Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush

Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Snowmore: 025XY019NV

Vanwyper: 025XY015NV

Devada: 025XY018NV

Inclusion 1: none

Inclusion 2: 024XY005NV

Inclusion 3: 025XY003NV

990--Playas***Composition*****Major Components**

Playas silty clay loam, 0 to 1 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Typic Torriorthents, fine-silty, mixed (calcareous), mesic very fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting*Landscape position:* Intermontane basins

Playas--Landform: Playas

Inclusion 1--Landform: Alluvial flats; position on slope: upper

Major Component Description**Playas Miscellaneous Area***Elevation:* 4,100 to 5,100 feet*Surface layer texture:* Silty clay loam***Dominant Present Vegetation***

Playas: None

Inclusion 1: Black greasewood, inland saltgrass

Ecological Site

Playas: None

Inclusion 1: 024XY011NV

994--Duneland***Composition*****Major Components**

Duneland fine sand, 4 to 30 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Davey loamy fine sand, 2 to 4 percent slopes--5 percent

Inclusion 2: Goldrun fine sand, 4 to 15 percent slopes--5 percent

Map Unit Setting*Landscape position:* Intermontane basins

Duneland--Landform: Dunes

Inclusion 1--Landform: Sand sheets

Inclusion 2--Landform: Dunes

Major Component Description**Duneland Miscellaneous Area***Elevation:* 4,400 to 4,900 feet*Surface layer texture:* Fine sand*Drainage class:* Excessively drained***Dominant Present Vegetation***

Duneland: None

Inclusion 1: Indian ricegrass, Wyoming big sagebrush, needleandthread

Inclusion 2: Indian ricegrass, basin big sagebrush, hairy horsebrush

Ecological Site

Duneland: None
 Inclusion 1: 024XY017NV
 Inclusion 2: 024XY001NV

995--Duneland-Goldrun-Davey association**Composition****Major Components**

Duneland fine sand, 4 to 30 percent slopes--40 percent
 Goldrun fine sand, 4 to 15 percent slopes--25 percent
 Davey loamy fine sand, 2 to 4 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Shabliss very fine sandy loam, dry, 2 to 8 percent slopes--8 percent
 Inclusion 2: Orovada fine sandy loam, hardpan substratum, 2 to 4 percent slopes--7 percent

Map Unit Setting

Landscape position: Intermontane basins
 Duneland--Landform: Dunes
 Goldrun--Landform: Dunes
 Davey--Landform: Sand sheets
 Inclusion 1--Landform: Fan remnants; position on slope: upper
 Inclusion 2--Landform: Fan skirts; position on slope: upper

Major Component Description**Duneland Miscellaneous Area**

Elevation: 4,000 to 5,000 feet
Surface layer texture: Fine sand
Drainage class: Excessively drained

Goldrun Series

Elevation: 4,200 to 4,800 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Eolian sand

Davey Series

Elevation: 4,000 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Duneland: None
 Goldrun: Indian ricegrass, basin big sagebrush, hairy horsebrush, needleandthread
 Davey: Indian ricegrass, big sagebrush, needleandthread
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Goldrun: 024XY001NV
 Davey: 024XY017NV
 Duneland: None
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY020NV

998--Dumps-Pits complex**Composition****Major Components**

Dumps fragmental material, 0 to 75 percent slopes--55 percent
 Pits unweathered bedrock, 0 to 10 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Rubble land, 0 to 99 percent slopes--5 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Dumps--Landform: Hills
 Pits--Landform: Hills
 Inclusion 1--Landform: Fan piedmonts

Major Component Description**Dumps Miscellaneous Area**

Elevation: 4,400 to 7,400 feet
Surface layer texture: Fragmental material

Pits Miscellaneous Area

Elevation: 4,400 to 7,400 feet
Surface layer texture: Unweathered bedrock

Dominant Present Vegetation

Dumps: None
 Pits: None
 Inclusion 1: None

Ecological Site

Dumps: None
 Pits: None
 Inclusion 1: none

999--Slickens**Composition****Major Components**

Slickens silt loam, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Dugchip very fine sandy loam, 2 to 8 percent slopes--2 percent
 Inclusion 2: Enko loamy fine sand, moist, 2 to 8 percent slopes--2 percent
 Inclusion 3: Rio King fine sandy loam, slightly saline, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Slickens--Landform: Fan remnants
 Inclusion 1--Landform: Fan remnants
 Inclusion 2--Landform: Fan aprons
 Inclusion 3--Landform: Stream terraces

Major Component Description**Slickens Miscellaneous Area**

Elevation: 4,300 to 5,200 feet
Surface layer texture: Silt loam

Dominant Present Vegetation

Slickens: None
 Inclusion 1: Wyoming big sagebrush, basin wildrye
 Inclusion 2: Wyoming big sagebrush, basin wildrye, bluebunch wheatgrass
 Inclusion 3: Basin big sagebrush, basin wildrye, black greasewood

Ecological Site

Slickens: None
 Inclusion 1: 024XY005NV
 Inclusion 2: 025XY019NV
 Inclusion 3: 024XY006NV

1004--Soughe-Davey association**Composition****Major Components**

Soughe very gravelly loam, dry, 15 to 50 percent slopes--45 percent

Davey loamy fine sand, 4 to 15 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Goldrun fine sand, 4 to 15 percent slopes--10 percent
 Inclusion 2: Hoot gravelly loam, 15 to 30 percent slopes--5 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Soughe--Landform: Hills; geomorphic position: summit; position on slope: upper
 Davey--Landform: Sand sheets
 Inclusion 1--Landform: Dunes
 Inclusion 2--Landform: Hills; geomorphic position: backslope; aspect: south

Major Component Description**Soughe Series**

Elevation: 4,400 to 5,500 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Davey Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Soughe: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Davey: Indian ricegrass, big sagebrush, needleandthread
 Inclusion 1: Indian ricegrass, basin big sagebrush, hairy horsebrush
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Soughe: 024XY020NV
 Davey: 024XY017NV
 Inclusion 1: 024XY001NV
 Inclusion 2: 024XY025NV

1005--Soughe-Flue association**Composition****Major Components**

Soughe gravelly very fine sandy loam, dry, 8 to 30 percent slopes--35 percent

Flue silt loam, 2 to 8 percent slopes--35 percent

Soughe very gravelly loam, 8 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Enko very fine sandy loam, moist, 2 to 8 percent slopes--5 percent

Inclusion 2: Rock outcrop--3 percent

Inclusion 3: McConnel gravelly very fine sandy loam, 0 to 2 percent slopes, occasionally flooded--2 percent

Map Unit Setting

Landscape position: Hills and intermontane basins

Soughe--Landform: Hills; geomorphic position: backslope; aspect: south

Flue--Landform: Fan remnants

Soughe--Landform: Hills; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Inset fans

Inclusion 2--Landform: Hills

Inclusion 3--Landform: Drainageways

Major Component Description**Soughe Series**

Elevation: 4,500 to 5,200 feet

Precipitation: About 10 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Flue Series

Elevation: 4,500 to 4,800 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Soughe Series

Elevation: 4,500 to 5,200 feet

Precipitation: About 10 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Soughe: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Flue: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Soughe: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: None

Inclusion 3: Basin big sagebrush, basin wildrye, black greasewood, rubber rabbitbrush

Ecological Site

Soughe: 024XY020NV

Flue: 024XY020NV

Soughe: 024XY005NV

Inclusion 1: 024XY005NV

Inclusion 2: none

Inclusion 3: 024XY006NV

1007--Soughe-Puett-Burrita association**Composition****Major Components**

Soughe very gravelly loam, 15 to 50 percent slopes--40 percent

Puett gravelly loam, 15 to 50 percent slopes--30 percent

Burrita gravelly loam, 8 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Gowjai very fine sandy loam, 4 to 15 percent slopes--5 percent

Inclusion 2: Puett gravelly loam, warm, 30 to 50 percent slopes--4 percent

Inclusion 3: Atlow very gravelly loam, 4 to 15 percent slopes--2 percent

Inclusion 4: Panlee cobbly very fine sandy loam, 15 to 50 percent slopes--4 percent

Map Unit Setting

Landscape position: Hills

Soughe--Landform: Hills; geomorphic position: backslope; aspect: north

Puett--Landform: Hills; geomorphic position: backslope; aspect: south

Burrita--Landform: Hills; geomorphic position: summit; aspect: south
 Inclusion 1--Landform: Hills; geomorphic position: footslope; aspect: north
 Inclusion 2--Landform: Hills; geomorphic position: shoulder; position on slope: upper; aspect: south
 Inclusion 3--Landform: Hills; geomorphic position: shoulder; position on slope: upper; aspect: north
 Inclusion 4--Landform: Hills; geomorphic position: backslope; shape of slope: concave; aspect: north

Major Component Description

Soughe Series

Elevation: 4,700 to 5,500 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Puett Series

Elevation: 4,700 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from tuffaceous rocks

Burrita Series

Elevation: 4,700 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Soughe: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Puett: Indian ricegrass, Wyoming big sagebrush, shadscale
 Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 2: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: Indian ricegrass, Thurber needlegrass, black sagebrush
 Inclusion 4: Indian ricegrass, big sagebrush, needleandthread

Ecological Site

Soughe: 024XY005NV
 Puett: 024XY045NV
 Burrita: 024XY005NV
 Inclusion 1: 024XY013NV
 Inclusion 2: 025XY025NV
 Inclusion 3: 024XY030NV
 Inclusion 4: 024XY058NV

1010--Bartome-Chiara association

Composition

Major Components

Bartome very fine sandy loam, 0 to 2 percent slopes--55 percent
 Chiara very fine sandy loam, 2 to 4 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Hunnton gravelly loam, 0 to 2 percent slopes--10 percent
 Inclusion 2: Abruptic Aridic Durixerolls, clayey, montmorillonitic, mesic, shallow extremely cobbly clay loam, 0 to 4 percent slopes--2 percent
 Inclusion 3: Zevadez very fine sandy loam, 0 to 2 percent slopes--3 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Bartome--Landform: Fan remnants; geomorphic position: summit
 Chiara--Landform: Fan remnants; geomorphic position: backslope
 Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Inclusion 2--Landform: Drainageways; shape of slope: concave
 Inclusion 3--Landform: Fan remnants; geomorphic position: toeslope

Major Component Description

Bartome Series

Elevation: 4,800 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Chiara Series

Elevation: 4,800 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Bartome: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail

Chiara: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail

Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Bartome: 025XY019NV

Chiara: 025XY019NV

Inclusion 1: 025XY019NV

Inclusion 2: 025XY022NV

Inclusion 3: 025XY019NV

1020--Wholan very fine sandy loam, 0 to 2 percent slopes

Composition

Major Components

Wholan very fine sandy loam, sodic, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Whirlo very gravelly loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Orovada very fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Wholan--Landform: Alluvial flats

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Fan skirts; position on slope: upper

Major Component Description

Wholan Series

Elevation: 4,200 to 4,600 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Wholan: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Wholan: 024XY002NV

Inclusion 1: 024XY002NV

Inclusion 2: 024XY020NV

1023--Wholan-Bliss-Enko association

Composition

Major Components

Wholan silt loam, 2 to 4 percent slopes--40 percent

Bliss fine sandy loam, 4 to 8 percent slopes--30 percent

Enko fine sandy loam, 2 to 4 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Dun Glen fine sandy loam, 2 to 4 percent slopes--7 percent

Inclusion 2: Golconda fine sandy loam, 4 to 8 percent slopes--5 percent

Inclusion 3: Orovada fine sandy loam, hardpan substratum, 2 to 4 percent slopes--3 percent

Map Unit Setting

Landscape position: Intermontane basins

Wholan--Landform: Fan remnants; position on slope: lower

Bliss--Landform: Fan remnants; position on slope: upper

Enko--Landform: Inset fans

Inclusion 1--Landform: Fan skirts; position on slope: lower

Inclusion 2--Landform: Fan remnants; geomorphic position: summit; position on slope: upper; aspect: south

Inclusion 3--Landform: Fan remnants; position on slope: upper

Major Component Description

Wholan Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Bliss Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Enko Series

Elevation: 4,400 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Wholan: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, winterfat

Bliss: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Enko: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale, winterfat

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Wholan: 024XY004NV

Bliss: 024XY005NV

Enko: 024XY005NV

Inclusion 1: 024XY014NV

Inclusion 2: 024XY002NV

Inclusion 3: 024XY020NV

1025--Wholan silt loam, 0 to 2 percent slopes

Composition

Major Components

Wholan silt loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Rad silt loam, 0 to 2 percent slopes--5 percent

Inclusion 3: Pumper very fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Wholan--Landform: Fan skirts

Inclusion 1--Landform: Fan remnants; position on slope: upper

Inclusion 3--Landform: Beach terraces

Major Component Description

Wholan Series

Elevation: 4,100 to 4,300 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Wholan: Bottlebrush squirreltail, bud sagebrush

Inclusion 1: Indian ricegrass, Wyoming big sagebrush, needleandthread

Inclusion 3: Indian ricegrass, bud sagebrush, shadscale

Ecological Site

Wholan: 024XY004NV

Inclusion 1: 024XY017NV

Inclusion 3: 024XY002NV

1030--Bullump-Westbutte-Harcany association

Composition

Major Components

Bullump very gravelly loam, 30 to 50 percent slopes--40 percent

Westbutte stony loam, 50 to 75 percent slopes--25 percent

Harcany gravelly loam, cool, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Cleavage very cobbly loam, 30 to 75 percent slopes--8 percent

Inclusion 2: Sumine very cobbly loam, 30 to 75 percent slopes--4 percent

Inclusion 3: Cumulic Endoaquolls, loamy-skeletal, mixed, frigid stony loam, drained, 2 to 15 percent slopes--2 percent

Inclusion 4: Cumulic Endoaquolls, loamy-skeletal, mixed, frigid stony loam, 2 to 15 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Bullump--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south

Westbutte--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Harcany--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: summit

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: south

Inclusion 3--Landform: Stream terraces

Inclusion 4--Landform: Flood plains

Major Component Description

Bullump Series

Elevation: 6,600 to 7,500 feet

Precipitation: About 16 inches

Air temperature: About 43 degrees

Frost-free season: About 70 days

Surface rock fragments: 3 percent cobbles; 20 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from mixed rocks

Westbutte Series

Elevation: 6,600 to 7,500 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 2 percent stones and boulders; 10 percent cobbles; 20 percent gravel

Surface layer texture: Stony loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Harcany Series

Elevation: 6,600 to 7,500 feet

Precipitation: About 15 inches

Air temperature: About 40 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from mixed rocks

Dominant Present Vegetation

Bullump: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Westbutte: Idaho fescue, threetip sagebrush

Harcany: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Inclusion 1: Idaho fescue, bottlebrush squirreltail, low sagebrush

Inclusion 2: Antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush

Inclusion 3: Basin wildrye, mountain big sagebrush

Inclusion 4: Bluegrass, rush, sedge

Ecological Site

Bullump: 023XY019NV

Westbutte: 023XY053NV

Harcany: 023XY019NV

Inclusion 1: 023XY008NV

Inclusion 2: 023XY016NV

Inclusion 3: 023XY056NV

Inclusion 4: 023XY025NV

1031--Bullump-Sumine-Cleavage association

Composition

Major Components

Bullump gravelly loam, 15 to 50 percent slopes--40 percent

Sumine cobbly loam, 15 to 50 percent slopes--30 percent

Cleavage extremely gravelly loam, 8 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Menbo gravelly loam, 30 to 75 percent slopes--6 percent

- Inclusion 2: Harcany gravelly loam, cool, 50 to 75 percent slopes--4 percent
 Inclusion 3: Rock outcrop--4 percent
 Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, frigid stony loam, 8 to 30 percent slopes--1 percent

Map Unit Setting

- Landscape position:* Mountains
 Bullump--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Sumine--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south
 Cleavage--Landform: Mountains; geomorphic position: summit
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: convex; aspect: north
 Inclusion 2--Landform: Mountains; position on slope: upper; aspect: north
 Inclusion 3--Landform: Mountains
 Inclusion 4--Landform: Stream terraces

Major Component Description

Bullump Series

- Elevation:* 6,400 to 7,700 feet
Precipitation: About 16 inches
Air temperature: About 43 degrees
Frost-free season: About 70 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Colluvium derived from mixed rocks

Sumine Series

- Elevation:* 6,400 to 7,700 feet
Precipitation: About 12 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Cleavage Series

- Elevation:* 6,400 to 7,700 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface rock fragments: 5 percent stones and boulders; 20 percent cobbles; 45 percent gravel
Surface layer texture: Extremely gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

- Bullump: Mountain big sagebrush, mountain brome, needlegrass, snowberry
 Sumine: Antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush
 Cleavage: Idaho fescue, bottlebrush squirreltail, low sagebrush
 Inclusion 1: Idaho fescue, mountain big sagebrush
 Inclusion 2: Mountain big sagebrush, mountain brome, needlegrass, snowberry
 Inclusion 3: None
 Inclusion 4: Bluegrass, rush, sedge, willow

Ecological Site

- Bullump: 023XY019NV
 Sumine: 023XY016NV
 Cleavage: 023XY008NV
 Inclusion 1: 023XY007NV
 Inclusion 2: 023XY019NV
 Inclusion 3: none
 Inclusion 4: 023XY025NV

1050--Argenta fine sandy loam

Composition

Major Components

Argenta fine sandy loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

- Inclusion 1: Parana silt loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--5 percent
 Inclusion 3: Sonoma silty clay loam, strongly saline, 0 to 2 percent slopes--3 percent
 Inclusion 4: Wendane silt loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

- Landscape position:* Intermontane basins
 Argenta--Landform: Basin-floor remnants
 Inclusion 1--Landform: Flood plains
 Inclusion 2--Landform: Inset fans
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Stream terraces

Major Component Description

Argenta Series

Elevation: 4,200 to 4,500 feet

Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Argenta: Basin wildrye, black greasewood, inland saltgrass
 Inclusion 1: Basin wildrye, creeping wildrye, silver buffaloberry, willow
 Inclusion 2: Alkali sacaton, basin wildrye, black greasewood
 Inclusion 3: Alkali bluegrass, alkali sacaton, basin wildrye, inland saltgrass, rabbitbrush
 Inclusion 4: Black greasewood, inland saltgrass

Ecological Site

Argenta: 024XY011NV
 Inclusion 1: 025XY001NV
 Inclusion 2: 024XY007NV
 Inclusion 3: 024XY009NV
 Inclusion 4: 026XY002NV

1051--Argenta-Preble complex

Composition

Major Components

Argenta fine sandy loam, 0 to 2 percent slopes--50 percent
 Preble silt loam, 0 to 2 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--8 percent
 Inclusion 2: Bubus fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 3: Playas--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Argenta--Landform: Inset fans
 Preble--Landform: Basin-floor remnants
 Inclusion 1--Landform: Inset fans; position on slope: lower
 Inclusion 2--Landform: Basin-floor remnants; position on slope: upper
 Inclusion 3--Landform: Playas

Major Component Description

Argenta Series

Elevation: 4,200 to 4,500 feet

Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Preble Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Dominant Present Vegetation

Argenta: Basin wildrye, black greasewood, inland saltgrass
 Preble: Basin wildrye, black greasewood, inland saltgrass
 Inclusion 1: Alkali sacaton, basin wildrye, black greasewood
 Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale
 Inclusion 3: None

Ecological Site

Argenta: 024XY011NV
 Preble: 024XY011NV
 Inclusion 1: 024XY007NV
 Inclusion 2: 024XY003NV
 Inclusion 3: none

1052--Argenta, rarely flooded-Preble complex

Composition

Major Components

Argenta very fine sandy loam, 0 to 2 percent slopes, rarely flooded--45 percent
 Preble very fine sandy loam, 0 to 2 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: Bubus very fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Sonoma loam, drained, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Argenta--Landform: Inset fans
 Preble--Landform: Basin-floor remnants
 Inclusion 1--Landform: Basin-floor remnants; position
 on slope: upper
 Inclusion 2--Landform: Stream terraces

Major Component Description

Argenta Series

Elevation: 4,100 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from
 mixed rocks, loess and volcanic ash

Preble Series

Elevation: 4,100 to 4,300 feet
Precipitation: About 8 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from
 mixed rocks and lacustrine sediments

Dominant Present Vegetation

Argenta: Alkali sacaton, black greasewood, inland
 saltgrass
 Preble: Black greasewood, inland saltgrass
 Inclusion 1: Black greasewood, bottlebrush
 squirreltail, shadscale
 Inclusion 2: Basin big sagebrush, basin wildrye,
 black greasewood

Ecological Site

Argenta: 024XY007NV
 Preble: 024XY011NV
 Inclusion 1: 024XY003NV
 Inclusion 2: 024XY006NV

1055--Argenta silt loam, rarely flooded

Composition

Major Components

Argenta silt loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Rose Creek silt loam, drained, 0 to 2
 percent slopes--7 percent
 Inclusion 2: Argenta silt loam, strongly saline, 0 to 2

percent slopes--3 percent

Map Unit Setting

Landscape position: Intermontane basins
 Argenta--Landform: Alluvial flats
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Basin-floor remnants

Major Component Description

Argenta Series

Elevation: 4,100 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from
 mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Argenta: Basin wildrye, black greasewood, inland
 saltgrass, rabbitbrush
 Inclusion 1: Basin big sagebrush, basin wildrye,
 black greasewood
 Inclusion 2: Black greasewood, inland saltgrass

Ecological Site

Argenta: 024XY007NV
 Inclusion 1: 024XY006NV
 Inclusion 2: 024XY011NV

1060--Paranat silty clay loam, drained

Composition

Major Components

Paranat silty clay loam, drained, 0 to 2 percent
 slopes--85 percent

Contrasting Inclusions

Inclusion 1: Sonoma silty clay loam, drained,
 occasionally flooded--8 percent
 Inclusion 2: Wendane silt loam, 0 to 2 percent
 slopes, occasionally flooded--5 percent
 Inclusion 3: Paranat silt loam, 0 to 2 percent slopes--
 2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Paranat--Landform: Stream terraces
 Inclusion 1--Landform: Stream terraces
 Inclusion 2--Landform: Stream terraces; position on
 slope: upper

Inclusion 3--Landform: Flood plains

Major Component Description

Paranat Series

Elevation: 4,200 to 4,800 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Silty clay loam

Drainage class: Poorly drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Paranat: Alkali sacaton, basin wildrye, black greasewood

Inclusion 1: Alkali sacaton, basin wildrye, black greasewood

Inclusion 2: Alkali sacaton, basin wildrye, black greasewood

Inclusion 3: Basin wildrye, creeping wildrye, silver buffaloberry, willow

Ecological Site

Paranat: 024XY007NV

Inclusion 1: 024XY007NV

Inclusion 2: 024XY007NV

Inclusion 3: 025XY001NV

1061--Paranat silt loam

Composition

Major Components

Paranat silt loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Sonoma silt loam, strongly saline, 0 to 2 percent slopes--5 percent

Inclusion 2: Sonoma silty clay loam, 0 to 2 percent slopes, frequently flooded--5 percent

Inclusion 3: Wendane silt loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Paranat--Landform: Flood plains

Inclusion 1--Landform: Stream terraces

Inclusion 2--Landform: Basin-floor remnants

Inclusion 3--Landform: Stream terraces

Major Component Description

Paranat Series

Elevation: 4,200 to 4,600 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Poorly drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Paranat: Basin big sagebrush, basin wildrye, creeping wildrye, silver buffaloberry, willow
Inclusion 1: Alkali sacaton, basin wildrye, black greasewood

Inclusion 2: Alkali muhly, alkali sacaton, basin wildrye, inland saltgrass

Inclusion 3: Black greasewood, inland saltgrass

Ecological Site

Paranat: 025XY001NV

Inclusion 1: 024XY007NV

Inclusion 2: 024XY009NV

Inclusion 3: 024XY011NV

1064--Paranat complex

Composition

Major Components

Paranat silt loam, 0 to 2 percent slopes--50 percent

Paranat silt loam, strongly saline, 0 to 2 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Paranat silty clay loam, drained, 0 to 2 percent slopes--8 percent

Inclusion 2: Delvada silty clay loam, 0 to 2 percent slopes--7 percent

Map Unit Setting

Landscape position: Intermontane basins

Paranat--Landform: Flood plains

Paranat--Landform: Stream terraces

Inclusion 1--Landform: Stream terraces

Inclusion 2--Landform: Sloughs

Major Component Description

Paranat Series

Elevation: 4,200 to 4,800 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Poorly drained

Dominant parent material: Alluvium derived from mixed rocks

Paranat Series*Elevation:* 4,200 to 4,800 feet*Precipitation:* About 8 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Silt loam*Drainage class:* Poorly drained*Dominant parent material:* Alluvium derived from mixed rocks***Dominant Present Vegetation***

Paranat: Basin wildrye, creeping wildrye, inland saltgrass, willow

Paranat: Alkali muhly, alkali sacaton, basin wildrye, inland saltgrass

Inclusion 1: Basin wildrye, black greasewood, inland saltgrass

Inclusion 2: Creeping wildrye, rush, willow

Ecological Site

Paranat: 025XY001NV

Paranat: 024XY009NV

Inclusion 1: 024XY011NV

Inclusion 2: 025XY001NV

1066--Paranat very fine sandy loam***Composition*****Major Components**

Paranat very fine sandy loam, moderately wet, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Paranat loam, strongly sodic, 0 to 2 percent slopes--6 percent

Inclusion 2: Delvada silty clay, 0 to 2 percent slopes--2 percent

Inclusion 3: McConnel loam, 0 to 2 percent slopes, occasionally flooded--2 percent

Map Unit Setting*Landscape position:* Intermontane basins

Paranat--Landform: Flood plains

Inclusion 1--Landform: Basin-floor remnants

Inclusion 2--Landform: Sloughs

Inclusion 3--Landform: Inset fans; position on slope: upper

Major Component Description**Paranat Series***Elevation:* 4,200 to 4,600 feet*Precipitation:* About 8 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Poorly drained*Dominant parent material:* Alluvium derived from mixed rocks***Dominant Present Vegetation***

Paranat: Basin wildrye

Inclusion 1: Basin wildrye, inland saltgrass, silver buffaloberry

Inclusion 2: Basin wildrye, creeping wildrye, willow

Inclusion 3: Basin big sagebrush, basin wildrye, black greasewood, rubber rabbitbrush

Ecological Site

Paranat: 024XY063NV

Inclusion 1: 024XY064NV

Inclusion 2: 025XY001NV

Inclusion 3: 024XY006NV

1067--Paranat silt loam, sodic***Composition*****Major Components**

Paranat silt loam, sodic, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Paranat very fine sandy loam, moderately wet, 0 to 2 percent slopes--5 percent

Inclusion 2: Clementine silt loam, high water table, 0 to 2 percent slopes--5 percent

Inclusion 3: Sonoma silt loam, strongly saline, 0 to 2 percent slopes--3 percent

Inclusion 4: Wendane very fine sandy loam, wet, 0 to 2 percent slopes--2 percent

Map Unit Setting*Landscape position:* Intermontane basins

Paranat--Landform: Stream terraces

Inclusion 1--Landform: Flood plains

Inclusion 2--Landform: Stream terraces

Inclusion 3--Landform: Stream terraces

Inclusion 4--Landform: Stream terraces; position on slope: upper

Major Component Description**Paranat Series***Elevation:* 4,200 to 4,800 feet*Precipitation:* About 8 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Silt loam*Drainage class:* Poorly drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Paranat: Basin wildrye, inland saltgrass, silver buffaloberry

Inclusion 1: Basin wildrye, silver buffaloberry, willow

Inclusion 2: Alkali bluegrass, inland saltgrass

Inclusion 3: Alkali sacaton, basin wildrye, black greasewood

Inclusion 4: Black greasewood, inland saltgrass

Ecological Site

Paranat: 024XY064NV

Inclusion 1: 024XY063NV

Inclusion 2: 024XY043NV

Inclusion 3: 024XY007NV

Inclusion 4: 026XY002NV

1072--Hoot-Laped-Rubble land association

Composition

Major Components

Hoot very stony loam, 30 to 50 percent slopes--40 percent

Laped stony very fine sandy loam, 2 to 8 percent slopes--30 percent

Rubble land fragmental material, 15 to 75 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Burrita stony loam, 30 to 50 percent slopes--10 percent

Inclusion 2: Knott stony very fine sandy loam, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Plateaus

Hoot--Landform: Plateaus; geomorphic position: backslope

Laped--Landform: Plateaus; geomorphic position: summit

Rubble land--Landform: Plateaus

Inclusion 1--Landform: Plateaus; geomorphic position: backslope; position on slope: upper

Inclusion 2--Landform: Plateaus; geomorphic position: summit; position on slope: upper

Major Component Description

Hoot Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Laped Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface rock fragments: 2 percent stones and boulders; 5 percent cobbles; 10 percent gravel

Surface layer texture: Stony very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Rubble land Miscellaneous Area

Elevation: 4,300 to 5,000 feet

Surface layer texture: Fragmental material

Drainage class: Excessively drained

Dominant Present Vegetation

Hoot: Bottlebrush squirreltail, bud sagebrush, shadscale

Laped: Indian ricegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Rubble land: None

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Hoot: 024XY025NV

Laped: 024XY002NV

Rubble land: None

Inclusion 1: 024XY005NV

Inclusion 2: 024XY002NV

1075--Hoot-Panlee-Rock outcrop association

Composition

Major Components

Hoot very gravelly loam, 15 to 50 percent slopes--45 percent

Panlee cobbly very fine sandy loam, 15 to 30 percent slopes--25 percent

Rock outcrop--15 percent

Contrasting Inclusions

Inclusion 1: Rocconda very channery loam, 15 to 30 percent slopes--6 percent

Inclusion 2: Davey loamy fine sand, 2 to 15 percent slopes--5 percent
 Inclusion 3: Haploxerollic Durorthids, loamy-skeletal, mixed, mesic gravelly very fine sandy loam, 15 to 50 percent slopes--4 percent

Map Unit Setting

Landscape position: Mountains
 Hoot--Landform: Mountains; geomorphic position: backslope; aspect: south
 Panlee--Landform: Mountains; geomorphic position: backslope; aspect: north
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; geomorphic position: summit
 Inclusion 2--Landform: Sand sheets; geomorphic position: footslope; aspect: north
 Inclusion 3--Landform: Mountains; geomorphic position: footslope; aspect: south

Major Component Description

Hoot Series

Elevation: 4,200 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Panlee Series

Elevation: 4,500 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Cobbly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 4,200 to 5,500 feet

Dominant Present Vegetation

Hoot: Bottlebrush squirreltail, bud sagebrush, shadscale
 Panlee: Wyoming big sagebrush, bottlebrush squirreltail, needleandthread, spiny hopsage
 Rock outcrop: None
 Inclusion 1: Sandberg bluegrass, bottlebrush squirreltail, shadscale
 Inclusion 2: Indian ricegrass, basin big sagebrush, needleandthread

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Hoot: 024XY025NV
 Panlee: 024XY058NV
 Rock outcrop: None
 Inclusion 1: 024XY057NV
 Inclusion 2: 024XY017NV
 Inclusion 3: 024XY020NV

1077--Hoot-Rock outcrop-Soughe association

Composition

Major Components

Hoot very gravelly loam, 15 to 50 percent slopes--40 percent
 Rock outcrop--30 percent
 Soughe very cobbly loam, warm, 15 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Soughe very cobbly fine sandy loam, warm, 50 to 75 percent slopes--9 percent
 Inclusion 2: Theon very channery fine sandy loam, 30 to 50 percent slopes--4 percent
 Inclusion 3: Puett very gravelly loam, 15 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Hoot--Landform: Mountains; geomorphic position: backslope; aspect: south
 Rock outcrop--Landform: Mountains
 Soughe--Landform: Mountains; geomorphic position: backslope; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: south
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south
 Inclusion 3--Landform: Mountains; geomorphic position: backslope

Major Component Description

Hoot Series

Elevation: 4,500 to 7,000 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 4,500 to 7,000 feet

Soughe Series

Elevation: 4,500 to 7,000 feet

Precipitation: About 10 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Hoot: Bottlebrush squirreltail, bud sagebrush, shadscale

Rock outcrop: None

Soughe: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Wyoming big sagebrush, green ephedra, needlegrass

Inclusion 2: Indian ricegrass, Nevada ephedra, desert needlegrass

Inclusion 3: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Hoot: 024XY025NV

Soughe: 027XY007NV

Rock outcrop: None

Inclusion 1: 027XY007NV

Inclusion 2: 027XY017NV

Inclusion 3: 024XY045NV

1078--Hoot-Genaw association

Composition

Major Components

Hoot very gravelly very fine sandy loam, 4 to 15 percent slopes--60 percent

Genaw silt loam, 4 to 15 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Orovada gravelly fine sandy loam, 0 to 4 percent slopes--5 percent

Inclusion 2: McConnel gravelly very fine sandy loam, 0 to 2 percent slopes, rarely flooded--5 percent

Map Unit Setting

Landscape position: Hills and intermontane basins

Hoot--Landform: Hills; geomorphic position: summit; shape of slope: convex

Genaw--Landform: Hills; geomorphic position: backslope; shape of slope: concave

Inclusion 1--Landform: Fan remnants

Inclusion 2--Landform: Inset fans

Major Component Description

Hoot Series

Elevation: 5,000 to 6,000 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Genaw Series

Elevation: 4,400 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Residuum derived from tuffaceous rocks

Dominant Present Vegetation

Hoot: Bottlebrush squirreltail, bud sagebrush, shadscale

Genaw: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Hoot: 024XY025NV

Genaw: 023XY038NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY005NV

1090--Soolake-Argenta association

Composition

Major Components

Soolake fine sandy loam, 0 to 2 percent slopes--50 percent

Argenta fine sandy loam, 0 to 2 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--5 percent

Inclusion 2: Goldrun fine sand, 0 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Soolake--Landform: Basin-floor remnants

Argenta--Landform: Inset fans

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Dunes; position on slope: upper

Major Component Description

Soolake Series

Elevation: 4,400 to 4,700 feet

Precipitation: About 8 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Argenta Series

Elevation: 4,400 to 4,700 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Fine sandy loam

Drainage class: Somewhat poorly drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Soolake: Black greasewood, bottlebrush squirreltail, shadscale

Argenta: Black greasewood, inland saltgrass

Inclusion 1: Alkali sacaton, basin wildrye, black greasewood

Inclusion 2: Indian ricegrass, basin big sagebrush

Ecological Site

Soolake: 024XY003NV

Argenta: 024XY011NV

Inclusion 1: 024XY007NV

Inclusion 2: 024XY001NV

1100--Wendane silt loam, occasionally flooded

Composition

Major Components

Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--90 percent

Contrasting Inclusions

Inclusion 1: Batan silt loam, 0 to 2 percent slopes--5 percent

Inclusion 2: Wendane silt loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Wendane--Landform: Stream terraces

Inclusion 1--Landform: Basin-floor remnants

Inclusion 2--Landform: Stream terraces

Major Component Description

Wendane Series

Elevation: 4,200 to 4,600 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Somewhat poorly drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Wendane: Alkali sacaton, basin wildrye, black greasewood

Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 2: Black greasewood, inland saltgrass

Ecological Site

Wendane: 024XY007NV

Inclusion 1: 024XY003NV

Inclusion 2: 024XY011NV

1101--Wendane silt loam

Composition

Major Components

Wendane silt loam, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--5 percent

Inclusion 2: Paranaat silt loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
Wendane--Landform: Stream terraces
Inclusion 1--Landform: Stream terraces
Inclusion 2--Landform: Flood plains

Major Component Description

Wendane Series

Elevation: 4,300 to 4,700 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Wendane: Black greasewood, inland saltgrass
Inclusion 1: Alkali sacaton, basin wildrye, black greasewood, inland saltgrass
Inclusion 2: Basin big sagebrush, basin wildrye, creeping wildrye, willow

Ecological Site

Wendane: 024XY011NV
Inclusion 1: 024XY007NV
Inclusion 2: 025XY001NV

1102--Wendane complex

Composition

Major Components

Wendane silt loam, 0 to 2 percent slopes--50 percent
Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--35 percent

Contrasting Inclusions

Inclusion 1: Paranaat silt loam, strongly saline, 0 to 2 percent slopes--8 percent
Inclusion 2: Paranaat silt loam, 0 to 2 percent slopes--2 percent
Inclusion 3: Batan very fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
Wendane--Landform: Stream terraces
Wendane--Landform: Stream terraces

Inclusion 1--Landform: Stream terraces
Inclusion 2--Landform: Flood plains
Inclusion 3--Landform: Basin-floor remnants; position on slope: lower

Major Component Description

Wendane Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Wendane Series

Elevation: 4,200 to 4,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Wendane: Black greasewood, inland saltgrass
Wendane: Alkali sacaton, basin wildrye, black greasewood
Inclusion 1: Alkali muhly, alkali sacaton, black greasewood
Inclusion 2: Basin big sagebrush, basin wildrye, creeping wildrye, willow
Inclusion 3: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Wendane: 024XY011NV
Wendane: 024XY007NV
Inclusion 1: 024XY009NV
Inclusion 2: 025XY001NV
Inclusion 3: 024XY003NV

1104--Wendane-Sonoma complex

Composition

Major Components

Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--50 percent
Sonoma silt loam, 0 to 2 percent slopes, occasionally flooded--35 percent

Contrasting Inclusions

- Inclusion 1: Argenta very fine sandy loam, strongly saline, 0 to 2 percent slopes--8 percent
 Inclusion 2: Sonoma silt loam, 0 to 2 percent slopes, frequently flooded--5 percent
 Inclusion 3: Wendane silt loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

- Landscape position:* Intermontane basins
 Wendane--Landform: Stream terraces
 Sonoma--Landform: Flood plains
 Inclusion 1--Landform: Basin-floor remnants; position on slope: upper
 Inclusion 2--Landform: Stream terraces
 Inclusion 3--Landform: Stream terraces

Major Component Description**Wendane Series**

- Elevation:* 4,200 to 4,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Somewhat poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Sonoma Series

- Elevation:* 4,200 to 4,500 feet
Precipitation: About 8 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Poorly drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

- Wendane: Alkali sacaton, basin wildrye, black greasewood
 Sonoma: Basin wildrye, creeping wildrye, willow
 Inclusion 1: Black greasewood, inland saltgrass
 Inclusion 2: Alkali bluegrass, alkali muhly, alkali sacaton, basin wildrye, black greasewood, inland saltgrass
 Inclusion 3: Black greasewood, inland saltgrass

Ecological Site

- Wendane: 024XY007NV
 Sonoma: 025XY001NV
 Inclusion 1: 024XY011NV
 Inclusion 2: 024XY009NV

Inclusion 3: 024XY011NV

1110--Theon very cobbly loam, 15 to 50 percent slopes**Composition****Major Components**

Theon very cobbly loam, 15 to 50 percent slopes--90 percent

Contrasting Inclusions

- Inclusion 1: Bluewing very cobbly loam, 2 to 8 percent slopes, occasionally flooded--5 percent
 Inclusion 2: Rock outcrop--5 percent

Map Unit Setting

- Landscape position:* Hills
 Theon--Landform: Hills
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Hills

Major Component Description**Theon Series**

- Elevation:* 4,200 to 6,200 feet
Precipitation: About 7 inches
Air temperature: About 52 degrees
Frost-free season: About 110 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

- Theon: Bailey greasewood, bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Indian ricegrass, littleleaf horsebrush, rubber rabbitbrush
 Inclusion 2: None

Ecological Site

- Theon: 027XY019NV
 Inclusion 1: 027XY022NV
 Inclusion 2: none

1120--Relley-Kelk association**Composition****Major Components**

- Relley silt loam, 0 to 2 percent slopes, frequently flooded--65 percent
 Kelk very fine sandy loam, 0 to 2 percent slopes--20

percent

Contrasting Inclusions

Inclusion 1: Zevadez very fine sandy loam, 0 to 2 percent slopes--10 percent

Inclusion 2: Dacker very fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Relley--Landform: Inset fans

Kelk--Landform: Fan remnants

Inclusion 1--Landform: Fan remnants; position on slope: upper

Inclusion 2--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Major Component Description

Relley Series

Elevation: 4,700 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Kelk Series

Elevation: 4,700 to 5,000 feet

Precipitation: About 8 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Relley: Alkali sacaton, black greasewood, bottlebrush squirreltail, sickle saltbush

Kelk: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Relley: 024XY012NV

Kelk: 025XY019NV

Inclusion 1: 025XY019NV

Inclusion 2: 025XY019NV

1140--Layview-Tusel association

Composition

Major Components

Layview very gravelly loam, 50 to 75 percent slopes--35 percent

Tusel very cobbly loam, 50 to 75 percent slopes--30 percent

Layview very gravelly loam, dry, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Quomus gravelly silt loam, moist, 50 to 75 percent slopes--5 percent

Inclusion 2: Spinlin very gravelly loam, 30 to 50 percent slopes--4 percent

Inclusion 3: Rock outcrop--4 percent

Inclusion 4: Harcany silt loam, cold, 30 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Layview--Landform: Mountains; aspect: south

Tusel--Landform: Mountains; aspect: north

Layview--Landform: Mountains; geomorphic position: summit

Inclusion 1--Landform: Mountains; position on slope: lower; shape of slope: concave; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: toeslope; aspect: south

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Mountains; position on slope: upper; shape of slope: concave

Major Component Description

Layview Series

Elevation: 7,000 to 9,700 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 50 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Tusel Series

Elevation: 7,000 to 9,700 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface rock fragments: 1 percent stones and

boulders; 30 percent cobbles; 10 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Layview Series

Elevation: 7,000 to 9,700 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 50 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Layview: Idaho fescue, bluebunch wheatgrass, low sagebrush

Tusel: Idaho fescue, lupine, mountain big sagebrush, serviceberry, slender wheatgrass

Layview: Idaho fescue, bottlebrush squirreltail, low sagebrush

Inclusion 1: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, snowberry

Inclusion 2: Idaho fescue, bluebunch wheatgrass, low sagebrush

Inclusion 3: None

Inclusion 4: Letterman needlegrass, tailcup lupine

Ecological Site

Layview: 024XY027NV

Tusel: 024XY032NV

Layview: 024XY016NV

Inclusion 1: 024XY023NV

Inclusion 2: 024XY027NV

Inclusion 3: none

Inclusion 4: 025XY028NV

1142--Layview-Udelope association

Composition

Major Components

Layview very gravelly loam, 8 to 30 percent slopes--50 percent

Udelope bouldery sandy loam, 8 to 30 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Hackwood silt loam, 15 to 30 percent slopes--5 percent

Inclusion 2: Tusel gravelly loam, 30 to 50 percent slopes--5 percent

Inclusion 3: Croesus stony loam, 4 to 15 percent slopes--3 percent

Inclusion 4: Entic Cryumbrepts, coarse-loamy, mixed loam, 30 to 75 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Layview--Landform: Mountains; geomorphic position: summit

Udelope--Landform: Mountains; shape of slope: convex

Inclusion 1--Landform: Mountains; shape of slope: concave

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Mountains; geomorphic position: summit; shape of slope: concave

Inclusion 4--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Major Component Description

Layview Series

Elevation: 7,500 to 8,500 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 50 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Udelope Series

Elevation: 7,500 to 8,500 feet

Precipitation: About 18 inches

Air temperature: About 43 degrees

Frost-free season: About 70 days

Surface rock fragments: 1 percent stones and boulders; 5 percent cobbles; *Surface layer texture:* Bouldery sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Layview: Idaho fescue, low sagebrush

Udelope: Curleaf mountainmahogany, mountain big sagebrush, mountain snowberry, needlegrass

Inclusion 1: Mountain brome, quaking aspen, snowberry

Inclusion 2: Idaho fescue, mountain big sagebrush, mountain brome, slender wheatgrass, snowberry

Inclusion 3: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, spike fescue

Inclusion 4: Limber pine, mountain snowberry, snowbrush ceanothus, spike fescue

Ecological Site

Layview: 025XY024NV

Udelope: 025XY075NV

Inclusion 1: 025XY065NV
 Inclusion 2: 025XY004NV
 Inclusion 3: 025XY076NV
 Inclusion 4: 025XY073NV

1150--Cotant-Say association

Composition

Major Components

Cotant very cobbly loam, 15 to 30 percent slopes--35 percent
 Say stony loam, 30 to 50 percent slopes--30 percent
 Cotant stony loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Carstump very cobbly loam, 4 to 15 percent slopes--7 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Rodock stony loam, dry, 2 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains
 Cotant--Landform: Mountains; aspect: south
 Say--Landform: Mountains; aspect: north
 Cotant--Landform: Mountains; geomorphic position: summit
 Inclusion 1--Landform: Mountains; position on slope: lower; shape of slope: concave
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Drainageways

Major Component Description

Cotant Series

Elevation: 5,500 to 6,500 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface rock fragments: 5 percent cobbles; 20 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Say Series

Elevation: 5,500 to 6,500 feet
Precipitation: About 13 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface layer texture: Stony loam
Drainage class: Well drained

Dominant parent material: Residuum derived from granitic rocks

Cotant Series

Elevation: 5,500 to 6,500 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Cotant: Douglas rabbitbrush, Idaho fescue, Sandberg bluegrass, low sagebrush
 Say: Idaho fescue, Sandberg bluegrass, bluebunch wheatgrass, mountain big sagebrush, rabbitbrush
 Cotant: Douglas rabbitbrush, Idaho fescue, Sandberg bluegrass, low sagebrush
 Inclusion 1: Idaho fescue, big sagebrush, bluebunch wheatgrass
 Inclusion 2: None
 Inclusion 3: Big sagebrush, bluebunch wheatgrass

Ecological Site

Cotant: 024XY027NV
 Say: 024XY021NV
 Cotant: 024XY027NV
 Inclusion 1: 025XY014NV
 Inclusion 2: none
 Inclusion 3: 025XY014NV

1151--Cotant-Say-Gol association

Composition

Major Components

Cotant gravelly loam, 15 to 30 percent slopes--35 percent
 Say stony loam, 15 to 30 percent slopes--30 percent
 Gol very stony sandy loam, 15 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Cumulic Haploxerolls, fine-loamy, mixed, frigid cobbly loam, 2 to 8 percent slopes--8 percent
 Inclusion 2: Xerollic Camborthids, coarse-loamy, mixed, frigid cobbly loam, 2 to 8 percent slopes--4 percent
 Inclusion 3: Rock outcrop--2 percent
 Inclusion 4: Aridic Argixerolls, clayey,

montmorillonitic, frigid, shallow stony loam, 4 to 15 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains
Cotant--Landform: Mountains; position on slope: upper; shape of slope: convex; aspect: north
Say--Landform: Mountains; shape of slope: concave; aspect: north
Gol--Landform: Mountains; aspect: south
Inclusion 1--Landform: Stream terraces
Inclusion 2--Landform: Mountains; geomorphic position: footslope
Inclusion 3--Landform: Mountains
Inclusion 4--Landform: Mountains; geomorphic position: summit

Major Component Description

Cotant Series

Elevation: 5,500 to 6,500 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Say Series

Elevation: 5,500 to 6,500 feet
Precipitation: About 13 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface rock fragments: 2 percent stones and boulders; 5 percent cobbles; 10 percent gravel
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum derived from granitic rocks

Gol Series

Elevation: 5,500 to 6,500 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface layer texture: Very stony sandy loam
Drainage class: Well drained
Dominant parent material: Residuum derived from granitic rocks

Dominant Present Vegetation

Cotant: Douglas rabbitbrush, Idaho fescue, Sandberg bluegrass, low sagebrush

Say: Idaho fescue, Sandberg bluegrass, bluebunch wheatgrass, mountain big sagebrush, rabbitbrush
 Gol: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: Basin big sagebrush, basin wildrye, rubber rabbitbrush
 Inclusion 2: Idaho fescue, big sagebrush, bluebunch wheatgrass
 Inclusion 3: None
 Inclusion 4: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Ecological Site

Cotant: 024XY027NV
 Say: 024XY021NV
 Gol: 024XY028NV
 Inclusion 1: 025XY003NV
 Inclusion 2: 025XY014NV
 Inclusion 3: none
 Inclusion 4: 024XY021NV

1160--Hawsley fine sand, 0 to 4 percent slopes

Composition

Major Components

Hawsley fine sand, 0 to 4 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Isolde fine sand, 4 to 15 percent slopes--7 percent
 Inclusion 2: Davey fine sand, 0 to 8 percent slopes--4 percent
 Inclusion 3: Cresal fine sandy loam, 0 to 2 percent slopes--3 percent
 Inclusion 4: Trocken gravelly loamy sand, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Intermontane basins
Hawsley--Landform: Sand sheets
Inclusion 1--Landform: Dunes
Inclusion 2--Landform: Sand sheets; position on slope: upper
Inclusion 3--Landform: Lake plains; position on slope: lower
Inclusion 4--Landform: Drainageways; position on slope: upper

Major Component Description

Hawsley Series

Elevation: 4,150 to 4,200 feet
Precipitation: About 7 inches

Air temperature: About 50 degrees
Frost-free season: About 120 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Hawsley: Indian ricegrass, fourwing saltbush, littleleaf horsebrush, needleandthread, spiny hopsage
 Inclusion 1: Indian ricegrass, fourwing saltbush, littleleaf horsebrush, needleandthread
 Inclusion 2: Indian ricegrass, basin big sagebrush, needleandthread, spiny hopsage
 Inclusion 3: Shadscale
 Inclusion 4: Indian ricegrass, needleandthread, spiny hopsage

Ecological Site

Hawsley: 027XY009NV
 Inclusion 1: 027XY023NV
 Inclusion 2: 024XY017NV
 Inclusion 3: 024XY067NV
 Inclusion 4: 024XY055NV

1161--Hawsley-Isolde association

Composition

Major Components

Hawsley fine sand, 2 to 8 percent slopes--55 percent
 Isolde fine sand, 4 to 15 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Goldrun fine sand, 4 to 15 percent slopes--6 percent
 Inclusion 2: Mazuma silt loam, slightly saline, 0 to 2 percent slopes--3 percent
 Inclusion 3: Playas--1 percent

Map Unit Setting

Landscape position: Intermontane basins
 Hawsley--Landform: Sand sheets
 Isolde--Landform: Dunes
 Inclusion 1--Landform: Dunes
 Inclusion 2--Landform: Lake plains
 Inclusion 3--Landform: Playas

Major Component Description

Hawsley Series

Elevation: 4,100 to 4,200 feet
Precipitation: About 7 inches
Air temperature: About 50 degrees

Frost-free season: About 120 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Isolde Series

Elevation: 4,100 to 4,200 feet
Precipitation: About 7 inches
Air temperature: About 52 degrees
Frost-free season: About 120 days
Surface layer texture: Fine sand
Drainage class: Excessively drained
Dominant parent material: Eolian sand

Dominant Present Vegetation

Hawsley: Indian ricegrass, fourwing saltbush, littleleaf horsebrush, needleandthread, spiny hopsage
 Isolde: Indian ricegrass, fourwing saltbush, horsebrush, needleandthread
 Inclusion 1: Indian ricegrass, basin big sagebrush, littleleaf horsebrush, spiny hopsage
 Inclusion 2: Black greasewood, bottlebrush squirreltail, shadscale
 Inclusion 3: None

Ecological Site

Hawsley: 027XY009NV
 Isolde: 027XY023NV
 Inclusion 1: 024XY001NV
 Inclusion 2: 024XY003NV
 Inclusion 3: none

1162--Hawsley-Davey-Mazuma association

Composition

Major Components

Hawsley fine sand, 2 to 4 percent slopes--35 percent
 Davey loamy fine sand, 2 to 8 percent slopes--30 percent
 Mazuma very fine sandy loam, 0 to 2 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Typic Torriorthents, sandy-skeletal, mixed, mesic fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Boton loamy fine sand, overblown, 0 to 2 percent slopes--5 percent
 Inclusion 3: Isolde fine sand, 4 to 15 percent slopes--4 percent
 Inclusion 4: Playas--1 percent

Map Unit Setting

Landscape position: Intermontane basins
 Hawsley--Landform: Sand sheets; position on slope: upper
 Davey--Landform: Sand sheets; position on slope: lower
 Mazuma--Landform: Lake plains
 Inclusion 1--Landform: Lake plains
 Inclusion 2--Landform: Lake plains; position on slope: lower
 Inclusion 3--Landform: Dunes
 Inclusion 4--Landform: Playas

Major Component Description**Hawsley Series**

Elevation: 4,200 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 50 degrees
Frost-free season: About 120 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Davey Series

Elevation: 4,200 to 4,300 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Mazuma Series

Elevation: 4,200 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 51 degrees
Frost-free season: About 120 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks and lacustrine sediments

Dominant Present Vegetation

Hawsley: Indian ricegrass, fourwing saltbush, littleleaf horsebrush, needleandthread, spiny hopsage
 Davey: Indian ricegrass, Wyoming big sagebrush, spiny hopsage
 Mazuma: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Bailey greasewood, bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 2: Indian ricegrass, Wyoming big sagebrush, spiny hopsage
 Inclusion 3: Indian ricegrass, Nevada dalea, hairy horsebrush, spiny hopsage
 Inclusion 4: None

Ecological Site

Hawsley: 027XY009NV
 Davey: 024XY017NV
 Mazuma: 027XY013NV
 Inclusion 1: 027XY018NV
 Inclusion 2: 024XY017NV
 Inclusion 3: 027XY023NV
 Inclusion 4: none

1167--Hawsley fine sand, 4 to 15 percent slopes**Composition****Major Components**

Hawsley fine sand, 4 to 15 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Hawsley fine sand, 0 to 2 percent slopes--5 percent
 Inclusion 2: Connel gravelly loamy fine sand, 4 to 15 percent slopes--5 percent
 Inclusion 3: Sodhouse gravelly very fine sandy loam, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Hawsley--Landform: Sand sheets
 Inclusion 1--Landform: Sand sheets; position on slope: lower
 Inclusion 2--Landform: Drainageways
 Inclusion 3--Landform: Fan remnants

Major Component Description**Hawsley Series**

Elevation: 4,300 to 5,000 feet
Precipitation: About 7 inches
Air temperature: About 50 degrees
Frost-free season: About 120 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Hawsley: Indian ricegrass, needleandthread, spiny hopsage

Inclusion 1: Indian ricegrass, littleleaf horsebrush, needleandthread
 Inclusion 2: Indian ricegrass, Wyoming big sagebrush, needleandthread
 Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Hawsley: 024XY055NV
 Inclusion 1: 027XY009NV
 Inclusion 2: 024XY017NV
 Inclusion 3: 024XY002NV

1168--Hawsley-Davey-Essal association

Composition

Major Components

Hawsley fine sand, 2 to 8 percent slopes--45 percent
 Davey loamy fine sand, 4 to 15 percent slopes--30 percent
 Essal loamy fine sand, 0 to 2 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Playas--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Hawsley--Landform: Sand sheets
 Davey--Landform: Fan skirts; position on slope: upper
 Essal--Landform: Lake plains; position on slope: lower
 Inclusion 1--Landform: Playas

Major Component Description

Hawsley Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 7 inches
Air temperature: About 50 degrees
Frost-free season: About 120 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Davey Series

Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Essal Series

Elevation: 4,300 to 4,500 feet
Precipitation: About 6 inches
Air temperature: About 52 degrees
Frost-free season: About 120 days
Surface layer texture: Loamy fine sand
Drainage class: Well drained
Dominant parent material: Alluvium derived from lacustrine sediments

Dominant Present Vegetation

Hawsley: Indian ricegrass, needleandthread, spiny hopsage
 Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread
 Essal: Indian ricegrass, littleleaf horsebrush, needleandthread
 Inclusion 1: None

Ecological Site

Hawsley: 024XY055NV
 Davey: 024XY017NV
 Essal: 027XY009NV
 Inclusion 1: none

1169--Hawsley-Soughe-Panlee association

Composition

Major Components

Hawsley fine sand, 8 to 15 percent slopes--50 percent
 Soughe gravelly loam, warm, 15 to 30 percent slopes--25 percent
 Panlee very fine sandy loam, 8 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--5 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Hawsley--Landform: Sand sheets; aspect: south
 Soughe--Landform: Hills; geomorphic position: summit
 Panlee--Landform: Hills; shape of slope: concave; aspect: north
 Inclusion 1--Landform: Hills

Major Component Description

Hawsley Series

Elevation: 4,300 to 4,800 feet

Precipitation: About 7 inches
Air temperature: About 50 degrees
Frost-free season: About 120 days
Surface layer texture: Fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Soughe Series

Elevation: 4,500 to 4,800 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Panlee Series

Elevation: 4,500 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Hawsley: Indian ricegrass, needleandthread, spiny hopsage
 Soughe: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush
 Panlee: Wyoming big sagebrush, basin wildrye, needleandthread
 Inclusion 1: None

Ecological Site

Hawsley: 024XY055NV
 Soughe: 027XY007NV
 Panlee: 024XY058NV
 Inclusion 1: none

1170--Hunnton-Bliss-Trunk association

Composition

Major Components

Hunnton cobbly loam, 4 to 15 percent slopes--35 percent
 Bliss cobbly loam, 8 to 15 percent slopes--25 percent
 Trunk cobbly loam, 15 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Golconda cobbly loam, 2 to 8 percent slopes--5 percent
 Inclusion 2: Xeric Torriorthents, loamy-skeletal, mixed (calcareous), mesic very cobbly sandy loam, 2 to 8 percent slopes--5 percent
 Inclusion 3: Golconda very cobbly loam, 15 to 50 percent slopes--5 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Hunnton--Landform: Fan remnants; geomorphic position: summit
 Bliss--Landform: Fan remnants
 Trunk--Landform: Hills
 Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: lower
 Inclusion 2--Landform: Drainageways
 Inclusion 3--Landform: Fan remnants; position on slope: lower

Major Component Description

Hunnton Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 5 percent cobbles; 10 percent gravel
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Bliss Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 110 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Trunk Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Hunnton: Sandberg bluegrass, Thurber needlegrass,
Wyoming big sagebrush
Bliss: Sandberg bluegrass, Thurber needlegrass,
Wyoming big sagebrush
Trunk: Sandberg bluegrass, Thurber needlegrass,
Wyoming big sagebrush
Inclusion 1: Bottlebrush squirreltail, bud sagebrush,
shadscale
Inclusion 2: Sandberg bluegrass, Wyoming big
sagebrush, bottlebrush squirreltail
Inclusion 3: Bottlebrush squirreltail, bud sagebrush,
shadscale

Ecological Site

Hunnton: 024XY005NV
Bliss: 024XY005NV
Trunk: 024XY005NV
Inclusion 1: 024XY002NV
Inclusion 2: 024XY005NV
Inclusion 3: 024XY002NV

**1171--Hunnton-Dugchip-Orovada
association*****Composition*****Major Components**

Hunnton very fine sandy loam, 2 to 8 percent
slopes--35 percent
Dugchip very fine sandy loam, 2 to 4 percent
slopes--30 percent
Orovada very fine sandy loam, moist, 2 to 4 percent
slopes--20 percent

Contrasting Inclusions

Inclusion 1: Snapp gravelly very fine sandy loam, 15
to 50 percent slopes--5 percent
Inclusion 2: Bliss very fine sandy loam, dry, 2 to 4
percent slopes--5 percent
Inclusion 3: Connel gravelly fine sandy loam, 0 to 2
percent slopes, rarely flooded--4 percent
Inclusion 4: Rose Creek loam, drained, 0 to 2
percent slopes--1 percent

Map Unit Setting

Landscape position: Fan piedmonts
Hunnton--Landform: Fan remnants; geomorphic
position: summit; position on slope: upper
Dugchip--Landform: Fan remnants; geomorphic
position: summit; position on slope: lower
Orovada--Landform: Fan aprons
Inclusion 1--Landform: Fan remnants
Inclusion 2--Landform: Fan remnants; geomorphic
position: summit; position on slope: lower

Inclusion 3--Landform: Inset fans
Inclusion 4--Landform: Drainageways

Major Component Description**Hunnton Series**

Elevation: 4,800 to 5,700 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Dugchip Series

Elevation: 4,800 to 5,700 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Orovada Series

Elevation: 4,800 to 5,700 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from
mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Hunnton: Sandberg bluegrass, Thurber needlegrass,
Wyoming big sagebrush
Dugchip: Sandberg bluegrass, Wyoming big
sagebrush, bottlebrush squirreltail
Orovada: Sandberg bluegrass, Wyoming big
sagebrush, bottlebrush squirreltail
Inclusion 1: Sandberg bluegrass, Wyoming big
sagebrush, bottlebrush squirreltail
Inclusion 2: Wyoming big sagebrush, bottlebrush
squirreltail, spiny hopsage
Inclusion 3: Sandberg bluegrass, Wyoming big
sagebrush, bottlebrush squirreltail
Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Hunnton: 024XY005NV
Dugchip: 024XY005NV
Orovada: 024XY005NV
Inclusion 1: 024XY005NV

Inclusion 2: 024XY020NV
 Inclusion 3: 024XY005NV
 Inclusion 4: 025XY003NV

1172--Hunnton-Flue-McConnel association

Composition

Major Components

Hunnton very fine sandy loam, 4 to 15 percent slopes--35 percent
 Flue very fine sandy loam, 2 to 4 percent slopes--35 percent
 McConnel gravelly fine sandy loam, 0 to 2 percent slopes, rarely flooded--15 percent

Contrasting Inclusions

Inclusion 1: Chiara very fine sandy loam, 2 to 8 percent slopes--5 percent
 Inclusion 2: Bilbo very gravelly loam, 30 to 50 percent slopes--5 percent
 Inclusion 3: Bliss very fine sandy loam, 2 to 4 percent slopes--3 percent
 Inclusion 4: Rodock loam, moist, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Hunnton--Landform: Fan remnants; position on slope: upper

Flue--Landform: Fan remnants; position on slope: lower

McConnel--Landform: Inset fans

Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Inclusion 2--Landform: Fan remnants; position on slope: upper

Inclusion 3--Landform: Fan remnants; position on slope: lower

Inclusion 4--Landform: Drainageways

Major Component Description

Hunnton Series

Elevation: 4,800 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Flue Series

Elevation: 4,800 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

McConnel Series

Elevation: 4,800 to 5,600 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly fine sandy loam

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Hunnton: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Flue: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

McConnel: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Hunnton: 024XY005NV

Flue: 024XY005NV

McConnel: 024XY005NV

Inclusion 1: 025XY019NV

Inclusion 2: 024XY005NV

Inclusion 3: 024XY005NV

Inclusion 4: 025XY003NV

1173--Hunnton very fine sandy loam, 2 to 8 percent slopes

Composition

Major Components

Hunnton very fine sandy loam, 2 to 8 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Lunder extremely cobbly loam, 2 to 4 percent slopes, rarely flooded--5 percent

Inclusion 2: Snowmore very fine sandy loam, 2 to 8 percent slopes--5 percent

Inclusion 3: Xipe gravelly loam, 0 to 4 percent slopes, occasionally flooded--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Hunnton--Landform: Fan remnants; geomorphic position: summit
 Inclusion 1--Landform: Drainageways; shape of slope: concave
 Inclusion 2--Landform: Pediments; geomorphic position: summit; position on slope: upper
 Inclusion 3--Landform: Drainageways

Major Component Description

Hunnton Series

Elevation: 4,800 to 5,700 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Hunnton: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush
 Inclusion 1: Sandberg bluegrass, low sagebrush
 Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Hunnton: 024XY005NV
 Inclusion 1: 025XY022NV
 Inclusion 2: 025XY019NV
 Inclusion 3: 025XY003NV

1174--Hunnton-Zevadez-Enko association

Composition

Major Components

Hunnton very fine sandy loam, 2 to 8 percent slopes--40 percent
 Zevadez very fine sandy loam, 2 to 4 percent slopes--35 percent
 Enko fine sandy loam, 0 to 2 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: McConnell fine sandy loam, 0 to 4 percent slopes, rarely flooded--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Hunnton--Landform: Fan remnants; geomorphic position: summit; position on slope: upper
 Zevadez--Landform: Fan remnants; position on slope: lower
 Enko--Landform: Inset fans
 Inclusion 1--Landform: Drainageways

Major Component Description

Hunnton Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Zevadez Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Enko Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Hunnton: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Zevadez: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Enko: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Hunnton: 024XY005NV

Zevadez: 024XY005NV
 Enko: 024XY005NV
 Inclusion 1: 024XY005NV

1175--Hunnton-Goosel-Connel association

Composition

Major Components

Hunnton cobbly loam, 4 to 15 percent slopes--65 percent
 Goosel very cobbly loam, 4 to 15 percent slopes--20 percent
 Connel gravelly loam, 2 to 8 percent slopes, rarely flooded--10 percent

Contrasting Inclusions

Inclusion 1: Rodock stony loam, moist, 2 to 8 percent slopes--2 percent
 Inclusion 2: Vanwyper cobbly loam, cool, 30 to 50 percent slopes--2 percent
 Inclusion 3: Puett cobbly loam, 50 to 75 percent slopes--1 percent

Map Unit Setting

Landscape position: Plateaus
 Hunnton--Landform: Plateaus; geomorphic position: summit; position on slope: lower
 Goosel--Landform: Plateaus; geomorphic position: summit; position on slope: upper
 Connel--Landform: Stream terraces
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Plateaus; aspect: south
 Inclusion 3--Landform: Plateaus

Major Component Description

Hunnton Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 5 percent cobbles; 10 percent gravel
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Goosel Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Connel Series

Elevation: 5,000 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Hunnton: Sandberg bluegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Goosel: Sandberg bluegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Connel: Sandberg bluegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Inclusion 1: Basin big sagebrush, basin wildrye
 Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Hunnton: 025XY019NV
 Goosel: 025XY019NV
 Connel: 025XY019NV
 Inclusion 1: 025XY003NV
 Inclusion 2: 025XY015NV
 Inclusion 3: 024XY045NV

1176--Hunnton-Dacker association

Composition

Major Components

Hunnton gravelly loam, 2 to 8 percent slopes--40 percent
 Hunnton cobbly loam, 8 to 15 percent slopes--25 percent
 Dacker gravelly loam, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Alyan gravelly loam, 8 to 30 percent slopes--4 percent
 Inclusion 2: Rose Creek gravelly loam, drained, 0 to 2 percent slopes--5 percent

Inclusion 3: Soughe very cobbly loam, south, 30 to 50 percent slopes--4 percent
 Inclusion 4: Devada very cobbly loam, warm, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Hunnton--Landform: Plateaus; geomorphic position: summit
 Hunnton--Landform: Plateaus; aspect: north
 Dacker--Landform: Plateaus; geomorphic position: summit; position on slope: lower; aspect: south
 Inclusion 1--Landform: Plateaus; position on slope: upper; aspect: north
 Inclusion 2--Landform: Stream terraces
 Inclusion 3--Landform: Plateaus; position on slope: upper; aspect: south
 Inclusion 4--Landform: Plateaus; geomorphic position: shoulder; position on slope: upper

Major Component Description

Hunnton Series

Elevation: 6,000 to 6,400 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Hunnton Series

Elevation: 6,000 to 6,400 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dacker Series

Elevation: 6,000 to 6,400 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Hunnton: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Hunnton: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Dacker: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush
 Inclusion 1: Idaho fescue, Thurber needlegrass
 Inclusion 2: Basin big sagebrush, basin wildrye
 Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 4: Bluebunch wheatgrass, bluegrass, low sagebrush

Ecological Site

Hunnton: 025XY019NV
 Hunnton: 025XY019NV
 Dacker: 024XY005NV
 Inclusion 1: 025XY014NV
 Inclusion 2: 025XY003NV
 Inclusion 3: 025XY015NV
 Inclusion 4: 025XY018NV

1180--Rocconda-Hoot association

Composition

Major Components

Rocconda very channery loam, 15 to 50 percent slopes--55 percent
 Hoot very gravelly loam, 15 to 50 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Panlee very fine sandy loam, 15 to 50 percent slopes--5 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Soughe very gravelly loam, dry, 8 to 30 percent slopes--5 percent

Map Unit Setting

Landscape position: Hills
 Rocconda--Landform: Hills; geomorphic position: summit; shape of slope: convex; aspect: north
 Hoot--Landform: Hills; aspect: south
 Inclusion 1--Landform: Hills; position on slope: lower; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Hills
 Inclusion 3--Landform: Hills; position on slope: upper; shape of slope: concave; aspect: north

Major Component Description

Rocconda Series

Elevation: 4,500 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days

Surface rock fragments: 1 percent cobbles; 55 percent gravel
Surface layer texture: Very channery loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Hoot Series

Elevation: 4,500 to 5,500 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 10 percent cobbles; 35 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Rocconda: Bottlebrush squirreltail, sagebrush
Hoot: Bottlebrush squirreltail, bud sagebrush, shadscale
Inclusion 1: Big sagebrush, needlegrass
Inclusion 2: None
Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Rocconda: 024XY057NV
Hoot: 024XY025NV
Inclusion 1: 024XY058NV
Inclusion 2: none
Inclusion 3: 024XY020NV

1181--Rocconda-Soughe-Hoot association***Composition*****Major Components**

Rocconda very cobbly loam, 15 to 50 percent slopes--45 percent
Soughe very cobbly loam, 30 to 50 percent slopes--20 percent
Hoot very gravelly loam, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Lithic Torriorthents, loamy-skeletal, mixed (calcareous), mesic extremely gravelly loam, 50 to 75 percent slopes--6 percent
Inclusion 2: Theon very cobbly loam, 15 to 50 percent slopes--3 percent
Inclusion 3: Rock outcrop--3 percent

Inclusion 4: Vanwyper cobbly loam, moist, 30 to 50 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains
Rocconda--Landform: Mountains; position on slope: upper; aspect: north
Soughe--Landform: Mountains; shape of slope: concave; aspect: north
Hoot--Landform: Mountains; aspect: south
Inclusion 1--Landform: Mountains; position on slope: upper; aspect: south
Inclusion 2--Landform: Mountains; position on slope: lower; aspect: south
Inclusion 3--Landform: Mountains
Inclusion 4--Landform: Mountains; position on slope: lower; shape of slope: concave; aspect: north

Major Component Description**Rocconda Series**

Elevation: 4,500 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 1 percent cobbles; 55 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Soughe Series

Elevation: 4,500 to 5,800 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Hoot Series

Elevation: 4,500 to 5,800 feet
Precipitation: About 7 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Rocconda: Sandberg bluegrass, bottlebrush squirreltail, sagebrush

Soughe: Sandberg bluegrass, Thurber needlegrass,
Wyoming big sagebrush
Hoot: Bottlebrush squirreltail, bud sagebrush,
shadscale
Inclusion 1: Wyoming big sagebrush, bottlebrush
squirreltail, shadscale
Inclusion 2: Bailey greasewood, Sandberg bluegrass,
shadscale
Inclusion 3: None
Inclusion 4: Idaho fescue, big sagebrush

Ecological Site

Rocconda: 024XY057NV
Soughe: 024XY005NV
Hoot: 024XY025NV
Inclusion 1: 024XY020NV
Inclusion 2: 027XY019NV
Inclusion 3: none
Inclusion 4: 025XY014NV

1184--Rocconda-Rock outcrop-Panlee association

Composition

Major Components

Rocconda very channery loam, 15 to 50 percent
slopes--55 percent
Rock outcrop--15 percent
Panlee very fine sandy loam, 15 to 50 percent
slopes--15 percent

Contrasting Inclusions

Inclusion 1: Burrita very cobbly loam, 15 to 50
percent slopes--6 percent
Inclusion 2: Atlow very cobbly loam, 8 to 30
percent slopes--4 percent
Inclusion 3: Rocconda very cobbly loam, moist, 15
to 50 percent slopes--4 percent
Inclusion 4: Rodock very fine sandy loam, moist, 4
to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains and foothills
Rocconda--Landform: Mountains; shape of slope:
convex
Rock outcrop--Landform: Mountains
Panlee--Landform: Mountains; shape of slope:
concave; aspect: north
Inclusion 1--Landform: Mountains; position on slope:
upper; aspect: north
Inclusion 2--Landform: Mountains; geomorphic
position: summit

Inclusion 3--Landform: Mountains; position on slope:
upper; shape of slope: convex; aspect: north
Inclusion 4--Landform: Drainageways

Major Component Description

Rocconda Series

Elevation: 4,700 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 1 percent cobbles; 55
percent gravel
Surface layer texture: Very channery loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 4,700 to 5,600 feet

Panlee Series

Elevation: 4,700 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
derived from mixed rocks

Dominant Present Vegetation

Rocconda: Sandberg bluegrass, bottlebrush
squirreltail, sagebrush
Rock outcrop: None
Panlee: Indian ricegrass, big sagebrush,
needleandthread
Inclusion 1: Thurber needlegrass, Wyoming big
sagebrush, bluebunch wheatgrass
Inclusion 2: Black sagebrush, bluegrass, bottlebrush
squirreltail
Inclusion 3: Sandberg bluegrass, Thurber
needlegrass, sagebrush
Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Rocconda: 024XY057NV
Panlee: 024XY058NV
Rock outcrop: None
Inclusion 1: 024XY005NV
Inclusion 2: 024XY030NV
Inclusion 3: 023XY037NV
Inclusion 4: 025XY003NV

1185--Rocconda-Quomus-Atlow association**Composition****Major Components**

Rocconda very channery loam, 15 to 50 percent slopes--35 percent

Quomus very fine sandy loam, 30 to 50 percent slopes--30 percent

Atlow very cobbly loam, 8 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Rocconda very channery loam, moist, 50 to 75 percent slopes--8 percent

Inclusion 2: Panlee very fine sandy loam, 15 to 30 percent slopes--4 percent

Inclusion 3: Soughe cobbly loam, dry, 15 to 30 percent slopes--2 percent

Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Mountains

Rocconda--Landform: Mountains; aspect: south

Quomus--Landform: Mountains; shape of slope: concave; aspect: north

Atlow--Landform: Mountains; geomorphic position: summit

Inclusion 1--Landform: Mountains; aspect: north

Inclusion 2--Landform: Mountains; position on slope: lower; shape of slope: concave; aspect: north

Inclusion 3--Landform: Mountains; position on slope: lower; shape of slope: convex; aspect: south

Inclusion 4--Landform: Mountains

Major Component Description**Rocconda Series**

Elevation: 5,000 to 6,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 1 percent cobbles; 55 percent gravel

Surface layer texture: Very channery loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Quomus Series

Elevation: 5,500 to 6,500 feet

Precipitation: About 10 inches

Air temperature: About 43 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Atlow Series

Elevation: 5,000 to 6,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from mixed rocks

Dominant Present Vegetation

Rocconda: Sandberg bluegrass, bottlebrush squirreltail, sagebrush

Quomus: Thurber needlegrass, basin big sagebrush, bluebunch wheatgrass

Atlow: Thurber needlegrass, black sagebrush, bluegrass, bottlebrush squirreltail

Inclusion 1: Thurber needlegrass, bluebunch wheatgrass, sagebrush

Inclusion 2: Indian ricegrass, big sagebrush, needleandthread

Inclusion 3: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 4: None

Ecological Site

Rocconda: 024XY057NV

Quomus: 024XY013NV

Atlow: 024XY030NV

Inclusion 1: 023XY037NV

Inclusion 2: 024XY058NV

Inclusion 3: 024XY020NV

Inclusion 4: none

1186--Rocconda-Burrita-Midraw association**Composition****Major Components**

Rocconda cobbly silt loam, moist, 8 to 30 percent slopes--40 percent

Burrita very cobbly loam, moist, 15 to 30 percent slopes--30 percent

Midraw gravelly loam, 2 to 8 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Rubble land, 15 to 75 percent slopes--5 percent

Inclusion 2: Zymans gravelly loam, 2 to 15 percent slopes--5 percent

Inclusion 3: Midraw silt loam, 2 to 8 percent slopes--4 percent

Inclusion 4: Kingsriver loam, drained, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Hills

Rocconda--Landform: Hills; aspect: north

Burrita--Landform: Hills; aspect: south

Midraw--Landform: Hills; geomorphic position: summit

Inclusion 1--Landform: Hills

Inclusion 2--Landform: Hills; geomorphic position: summit; position on slope: upper

Inclusion 3--Landform: Hills; geomorphic position: summit; position on slope: lower

Inclusion 4--Landform: Drainageways

Major Component Description

Rocconda Series

Elevation: 5,200 to 5,900 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Cobbly silt loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Burrita Series

Elevation: 5,200 to 5,900 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Midraw Series

Elevation: 5,200 to 5,900 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Rocconda: Thurber needlegrass, bluebunch wheatgrass

Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Midraw: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush

Inclusion 1: None

Inclusion 2: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Rocconda: 023XY037NV

Burrita: 023XY039NV

Midraw: 023XY006NV

Inclusion 1: none

Inclusion 2: 023XY020NV

Inclusion 3: 023XY038NV

Inclusion 4: 023XY005NV

1187--Rocconda-Panlee-Hoot association

Composition

Major Components

Rocconda very cobbly loam, 15 to 50 percent slopes--40 percent

Panlee very fine sandy loam, 30 to 50 percent slopes--30 percent

Hoot very gravelly loam, 15 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Soughe very cobbly loam, dry, 15 to 50 percent slopes--8 percent

Inclusion 2: Panlee very cobbly very fine sandy loam, dry, 15 to 30 percent slopes--4 percent

Inclusion 3: Rodock very fine sandy loam, slightly saline, 2 to 8 percent slopes--2 percent

Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Mountains and foothills

Rocconda--Landform: Hills; position on slope: upper; aspect: south

Panlee--Landform: Mountains; position on slope: upper; shape of slope: concave; aspect: north

Hoot--Landform: Hills; aspect: south

Inclusion 1--Landform: Hills; position on slope: lower; shape of slope: convex; aspect: north

Inclusion 2--Landform: Mountains; position on slope: lower; shape of slope: concave; aspect: north

Inclusion 3--Landform: Drainageways

Inclusion 4--Landform: Mountains

Major Component Description

Rocconda Series

Elevation: 4,500 to 5,400 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface rock fragments: 15 percent cobbles; 20 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Panlee Series

Elevation: 4,500 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Hoot Series

Elevation: 4,500 to 5,000 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Rocconda: Sandberg bluegrass, bottlebrush squirreltail, sagebrush

Panlee: Indian ricegrass, Wyoming big sagebrush, needleandthread

Hoot: Bottlebrush squirreltail, bud sagebrush, littleleaf horsebrush, shadscale

Inclusion 1: Wyoming big sagebrush, bluegrass, spiny hopsage

Inclusion 2: Wyoming big sagebrush, bluegrass, bottlebrush squirreltail, littleleaf horsebrush, spiny hopsage

Inclusion 3: Basin big sagebrush, basin wildrye, bluegrass, bottlebrush squirreltail, rubber rabbitbrush

Inclusion 4: None

Ecological Site

Rocconda: 024XY057NV

Panlee: 024XY058NV

Hoot: 024XY025NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY020NV

Inclusion 3: 024XY006NV

Inclusion 4: none

1188--Rocconda association

Composition

Major Components

Rocconda very gravelly silt loam, 15 to 50 percent slopes--45 percent

Rocconda very gravelly silt loam, moist, 15 to 50 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: Bregar very gravelly loam, dry, 30 to 45 percent slopes--5 percent

Inclusion 2: Soughe cobbly loam, 15 to 30 percent slopes--2 percent

Inclusion 3: Hoot very gravelly loam, 15 to 50 percent slopes--2 percent

Inclusion 4: Beoska silt loam, 8 to 15 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains and foothills

Rocconda--Landform: Hills; aspect: south

Rocconda--Landform: Hills; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: summit; position on slope: upper

Inclusion 2--Landform: Hills; position on slope: lower; aspect: north

Inclusion 3--Landform: Hills; position on slope: lower; aspect: south

Inclusion 4--Landform: Fan remnants

Major Component Description

Rocconda Series

Elevation: 4,800 to 5,300 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very gravelly silt loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Rocconda Series

Elevation: 4,800 to 5,300 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Very gravelly silt loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Rocconda: Thurber needlegrass, bottlebrush squirreltail, sagebrush
 Rocconda: Thurber needlegrass, bluebunch wheatgrass, bottlebrush squirreltail
 Inclusion 1: Idaho fescue, bluegrass, low sagebrush
 Inclusion 2: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 4: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Rocconda: 023XY047NV
 Rocconda: 023XY037NV
 Inclusion 1: 023XY008NV
 Inclusion 2: 023XY006NV
 Inclusion 3: 024XY025NV
 Inclusion 4: 024XY002NV

1189--Rocconda-Soughe association

Composition

Major Components

Rocconda very cobbly silt loam, moist, 8 to 30 percent slopes--60 percent
 Soughe cobbly loam, 15 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Rubble land, 15 to 75 percent slopes--5 percent
 Inclusion 2: Beoska gravelly silt loam, 8 to 30 percent slopes--4 percent
 Inclusion 3: Vanwyper stony loam, dry, 30 to 50 percent slopes--3 percent
 Inclusion 4: Zevadez loam, 2 to 4 percent slopes--3 percent

Map Unit Setting

Landscape position: Hills
 Rocconda--Landform: Mountains; geomorphic position: summit; shape of slope: convex
 Soughe--Landform: Mountains; shape of slope:

concave; aspect: north
 Inclusion 1--Landform: Mountains
 Inclusion 2--Landform: Hills; geomorphic position: toeslope; aspect: south
 Inclusion 3--Landform: Hills; shape of slope: concave; aspect: south
 Inclusion 4--Landform: Hills; geomorphic position: toeslope; aspect: north

Major Component Description

Rocconda Series

Elevation: 5,000 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface rock fragments: 1 percent cobbles; 55 percent gravel
Surface layer texture: Very cobbly silt loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Soughe Series

Elevation: 5,000 to 5,500 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Rocconda: Thurber needlegrass, bluebunch wheatgrass
 Soughe: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: None
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 4: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush

Ecological Site

Rocconda: 023XY037NV
 Soughe: 023XY006NV
 Inclusion 1: none
 Inclusion 2: 024XY002NV
 Inclusion 3: 023XY039NV

Inclusion 4: 023XY006NV

1192--Enko fine sandy loam, 2 to 4 percent slopes**Composition****Major Components**

Enko fine sandy loam, 2 to 4 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Snapp silt loam, 2 to 4 percent slopes--2 percent

Inclusion 2: Enko loamy very fine sand, 2 to 4 percent slopes--2 percent

Inclusion 3: Kelk fine sandy loam, 2 to 4 percent slopes, occasionally flooded--1 percent

Map Unit Setting*Landscape position:* Fan piedmonts

Enko--Landform: Fan skirts

Inclusion 1--Landform: Fan remnants; position on slope: upper

Inclusion 2--Landform: Fan skirts; position on slope: lower

Inclusion 3--Landform: Drainageways

Major Component Description**Enko Series***Elevation:* 4,400 to 5,000 feet*Precipitation:* About 9 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash**Dominant Present Vegetation**

Enko: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Inclusion 2: Indian ricegrass, big sagebrush

Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Enko: 024XY005NV

Inclusion 1: 024XY020NV

Inclusion 2: 024XY017NV

Inclusion 3: 024XY006NV

1194--Enko loam, 0 to 2 percent slopes**Composition****Major Components**

Enko loam, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Rodock loam, slightly saline, 0 to 2 percent slopes--5 percent

Map Unit Setting*Landscape position:* Fan piedmonts

Enko--Landform: Fan skirts

Inclusion 1--Landform: Drainageways

Major Component Description**Enko Series***Elevation:* 4,100 to 4,600 feet*Precipitation:* About 9 inches*Air temperature:* About 48 degrees*Frost-free season:* About 110 days*Surface layer texture:* Loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash**Dominant Present Vegetation**

Enko: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Basin big sagebrush, basin wildrye, black greasewood

Ecological Site

Enko: 024XY005NV

Inclusion 1: 024XY006NV

1200--Erakatak-Madeline association**Composition****Major Components**

Erakatak gravelly loam, 15 to 50 percent slopes--45 percent

Madeline loam, 2 to 8 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Ninemile cobbly loam, 2 to 8 percent slopes--5 percent

Inclusion 2: Rio King loam, dry, 2 to 4 percent slopes--5 percent

Inclusion 3: Rock outcrop--5 percent

Map Unit Setting

Landscape position: Plateaus

Erakatak--Landform: Plateaus; geomorphic position: backslope; aspect: south

Madeline--Landform: Plateaus; geomorphic position: summit; aspect: north

Inclusion 1--Landform: Plateaus; geomorphic position: shoulder; shape of slope: convex

Inclusion 2--Landform: Plateaus; geomorphic position: summit; shape of slope: concave

Inclusion 3--Landform: Plateaus

Major Component Description**Erakatak Series**

Elevation: 6,000 to 6,500 feet

Precipitation: About 16 inches

Air temperature: About 43 degrees

Frost-free season: About 70 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Madeline Series

Elevation: 6,000 to 6,500 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Erakatak: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush, mountain brome

Madeline: Idaho fescue, basin wildrye, mountain big sagebrush, mountain brome

Inclusion 1: Idaho fescue, bluebunch wheatgrass, low sagebrush

Inclusion 2: Thurber needlegrass, big sagebrush

Inclusion 3: None

Ecological Site

Erakatak: 024XY029NV

Madeline: 025XY012NV

Inclusion 1: 025XY017NV

Inclusion 2: 025XY014NV

Inclusion 3: none

1201--Erakatak-Ninemile-Harcany association**Composition****Major Components**

Erakatak very gravelly loam, 15 to 50 percent slopes--40 percent

Ninemile cobbly loam, 4 to 30 percent slopes--25 percent

Harcany gravelly silt loam, moist, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Ninemile very cobbly loam, dry, 15 to 50 percent slopes--8 percent

Inclusion 2: Menbo gravelly loam, 8 to 30 percent slopes--3 percent

Inclusion 3: Rock outcrop--3 percent

Inclusion 4: Clementine loam, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Erakatak--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south

Ninemile--Landform: Mountains; geomorphic position: backslope; shape of slope: convex

Harcany--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: shoulder

Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; shape of slope: convex; aspect: north

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Stream terraces

Major Component Description**Erakatak Series**

Elevation: 6,500 to 7,500 feet

Precipitation: About 16 inches

Air temperature: About 43 degrees

Frost-free season: About 70 days

Surface rock fragments: 10 percent cobbles; 35 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Ninemile Series*Elevation:* 6,500 to 7,500 feet*Precipitation:* About 14 inches*Air temperature:* About 43 degrees*Frost-free season:* About 90 days*Surface layer texture:* Cobbly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from volcanic rocks**Harcany Series***Elevation:* 6,500 to 7,500 feet*Precipitation:* About 15 inches*Air temperature:* About 40 degrees*Frost-free season:* About 50 days*Surface layer texture:* Gravelly silt loam*Drainage class:* Well drained*Dominant parent material:* Colluvium derived from volcanic rocks***Dominant Present Vegetation***

Erakatak: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, mountain brome

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush

Harcany: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Inclusion 1: Idaho fescue, bluegrass, low sagebrush

Inclusion 2: Idaho fescue, mountain big sagebrush

Inclusion 3: None

Inclusion 4: Bluegrass, rush, sedge, tufted hairgrass

Ecological Site

Erakatak: 023XY064NV

Ninemile: 023XY017NV

Harcany: 023XY065NV

Inclusion 1: 023XY008NV

Inclusion 2: 023XY007NV

Inclusion 3: none

Inclusion 4: 023XY025NV

1202--Erakatak-Bullump-Rock outcrop association***Composition*****Major Components**

Erakatak very cobbly loam, 50 to 75 percent slopes--40 percent

Bullump very gravelly loam, 50 to 75 percent slopes--35 percent

Rock outcrop--15 percent

Contrasting Inclusions

Inclusion 1: Cleavage extremely gravelly loam, 30 to 50 percent slopes--6 percent

Inclusion 2: Menbo very cobbly loam, 30 to 50 percent slopes--2 percent

Inclusion 3: Harcany gravelly loam, cool, 15 to 50 percent slopes--2 percent

Map Unit Setting*Landscape position:* Mountains

Erakatak--Landform: Mountains; geomorphic position: backslope; shape of slope: convex

Bullump--Landform: Mountains; geomorphic position: backslope; shape of slope: concave

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; geomorphic position: summit

Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower

Inclusion 3--Landform: Mountains; geomorphic position: toeslope

Major Component Description**Erakatak Series***Elevation:* 7,000 to 8,500 feet*Precipitation:* About 16 inches*Air temperature:* About 43 degrees*Frost-free season:* About 70 days*Surface layer texture:* Very cobbly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from volcanic rocks**Bullump Series***Elevation:* 7,000 to 8,500 feet*Precipitation:* About 16 inches*Air temperature:* About 43 degrees*Frost-free season:* About 70 days*Surface layer texture:* Very gravelly loam*Drainage class:* Well drained*Dominant parent material:* Colluvium derived from mixed rocks**Rock outcrop Miscellaneous Area***Elevation:* 7,000 to 8,500 feet***Dominant Present Vegetation***

Erakatak: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush, mountain brome

Bullump: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Rock outcrop: None

Inclusion 1: Idaho fescue, Sandberg bluegrass, low sagebrush

Inclusion 2: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 3: Mountain big sagebrush, mountain brome, snowberry

Ecological Site

Erakatak: 023XY064NV

Bullump: 023XY019NV

Rock outcrop: None

Inclusion 1: 023XY008NV

Inclusion 2: 023XY007NV

Inclusion 3: 023XY019NV

1210--Cresal-Playas association

Composition

Major Components

Cresal silt loam, 0 to 2 percent slopes--65 percent

Playas silty clay loam, 0 to 1 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Boton silt loam, 0 to 2 percent slopes--7 percent

Inclusion 2: Tresed silt loam, 0 to 2 percent slopes--4 percent

Inclusion 3: Essal silt loam, 0 to 2 percent slopes--4 percent

Map Unit Setting

Landscape position: Intermontane basins

Cresal--Landform: Lake plains

Playas--Landform: Playas

Inclusion 1--Landform: Lake plains; position on slope: lower

Inclusion 2--Landform: Lake plains; position on slope: lower

Inclusion 3--Landform: Drainageways; shape of slope: concave

Major Component Description

Cresal Series

Elevation: 4,100 to 4,200 feet

Precipitation: About 7 inches

Air temperature: About 51 degrees

Frost-free season: About 130 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from lacustrine sediments

Playas Miscellaneous Area

Elevation: 4,100 to 4,200 feet

Surface layer texture: Silty clay loam

Dominant Present Vegetation

Cresal: Shadscale

Playas: None

Inclusion 1: Black greasewood, bottlebrush squirreltail, shadscale

Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 3: Black greasewood, bottlebrush squirreltail, shadscale

Ecological Site

Cresal: 024XY067NV

Playas: None

Inclusion 1: 024XY003NV

Inclusion 2: 024XY002NV

Inclusion 3: 024XY003NV

1211--Cresal silt loam, 0 to 2 percent slopes

Composition

Major Components

Cresal silt loam, sodic, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Kelk silt loam, 0 to 2 percent slopes, occasionally flooded--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Cresal--Landform: Lake plains

Inclusion 1--Landform: Drainageways

Major Component Description

Cresal Series

Elevation: 4,100 to 4,200 feet

Precipitation: About 7 inches

Air temperature: About 51 degrees

Frost-free season: About 130 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from lacustrine sediments

Dominant Present Vegetation

Cresal: Black greasewood, bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Basin big sagebrush, basin wildrye,
black greasewood

Ecological Site

Cresal: 024XY003NV

Inclusion 1: 024XY006NV

1212--Cresal-Tresed-Playas complex

Composition

Major Components

Cresal loamy fine sand, 0 to 2 percent slopes--45
percent

Tresed loamy very fine sand, 0 to 2 percent slopes--
30 percent

Playas silty clay loam, 0 to 1 percent slopes--15
percent

Contrasting Inclusions

Inclusion 1: Cresal silt loam, 0 to 2 percent slopes--
5 percent

Inclusion 2: Trocken gravelly very fine sandy loam, 2
to 4 percent slopes--3 percent

Inclusion 3: Soolake fine sand, 0 to 8 percent
slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Cresal--Landform: Lake plains

Tresed--Landform: Drainageways

Playas--Landform: Playas

Inclusion 1--Landform: Lake plains; position on
slope: upper

Inclusion 2--Landform: Fan remnants

Inclusion 3--Landform: Sand sheets

Major Component Description

Cresal Series

Elevation: 4,150 to 4,175 feet

Precipitation: About 7 inches

Air temperature: About 51 degrees

Frost-free season: About 130 days

Surface layer texture: Loamy fine sand

Drainage class: Well drained

Dominant parent material: Alluvium derived from
lacustrine sediments

Tresed Series

Elevation: 4,150 to 4,175 feet

Precipitation: About 6 inches

Air temperature: About 52 degrees

Frost-free season: About 120 days

Surface layer texture: Loamy very fine sand

Drainage class: Moderately well drained

Dominant parent material: Alluvium derived from
lacustrine sediments

Playas Miscellaneous Area

Elevation: 4,150 to 4,175 feet

Surface layer texture: Silty clay loam

Dominant Present Vegetation

Cresal: Black greasewood, bottlebrush squirreltail,
bud sagebrush, seepweed, shadscale, spiny
horsebrush

Tresed: Black greasewood, bottlebrush squirreltail,
bud sagebrush, seepweed, shadscale, spiny
horsebrush

Playas: None

Inclusion 1: Shadscale

Inclusion 2: Indian ricegrass, bottlebrush squirreltail,
bud sagebrush, littleleaf horsebrush, shadscale

Inclusion 3: Indian ricegrass, black greasewood,
bottlebrush squirreltail, bud sagebrush,
horsebrush, shadscale

Ecological Site

Cresal: 024XY003NV

Tresed: 024XY003NV

Playas: None

Inclusion 1: 024XY067NV

Inclusion 2: 027XY013NV

Inclusion 3: 024XY003NV

1221--Alyan-Bilbo association

Composition

Major Components

Alyan very gravelly loam, 4 to 15 percent slopes--65
percent

Bilbo very gravelly loam, 15 to 30 percent slopes--
20 percent

Contrasting Inclusions

Inclusion 1: Bilbo very gravelly loam, 2 to 8 percent
slopes--7 percent

Inclusion 2: Tusk cobbly loam, dry, 15 to 50 percent
slopes--5 percent

Inclusion 3: Fluvaquentic Haploxerolls, fine-loamy,
mixed, frigid gravelly loam, 2 to 8 percent slopes--
1 percent

Inclusion 4: Devada very gravelly loam, 4 to 15
percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus

Alyan--Landform: Plateaus; geomorphic position:
summit

Bilbo--Landform: Plateaus; geomorphic position: backslope; aspect: south
 Inclusion 1--Landform: Plateaus; geomorphic position: summit; position on slope: lower
 Inclusion 2--Landform: Plateaus; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north
 Inclusion 3--Landform: Drainageways
 Inclusion 4--Landform: Plateaus; geomorphic position: backslope; shape of slope: convex; aspect: south

Major Component Description

Alyan Series

Elevation: 5,900 to 6,500 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface rock fragments: 35 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Bilbo Series

Elevation: 5,900 to 6,500 feet
Precipitation: About 9 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Alyan: Thurber needlegrass, basin big sagebrush, bluebunch wheatgrass
 Bilbo: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 1: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush
 Inclusion 2: Idaho fescue, basin big sagebrush, basin wildrye
 Inclusion 3: Basin big sagebrush, basin wildrye
 Inclusion 4: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Ecological Site

Alyan: 025XY014NV
 Bilbo: 025XY015NV
 Inclusion 1: 025XY019NV
 Inclusion 2: 025XY027NV
 Inclusion 3: 025XY003NV
 Inclusion 4: 025XY018NV

1230--Knott-Sodhouse-Wholan association

Composition

Major Components

Knott gravelly very fine sandy loam, 2 to 8 percent slopes--45 percent
 Sodhouse gravelly very fine sandy loam, 2 to 8 percent slopes--25 percent
 Wholan silt loam, sodic, 0 to 2 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Flue very fine sandy loam, 2 to 8 percent slopes--10 percent
 Inclusion 2: Oxcorel gravelly very fine sandy loam, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Knott--Landform: Fan remnants; position on slope: upper
 Sodhouse--Landform: Fan remnants; position on slope: lower
 Wholan--Landform: Fan skirts; position on slope: lower
 Inclusion 1--Landform: Fan remnants; position on slope: upper
 Inclusion 2--Landform: Fan remnants; position on slope: lower

Major Component Description

Knott Series

Elevation: 4,200 to 4,900 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Sodhouse Series

Elevation: 4,200 to 4,900 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Wholan Series

Elevation: 4,200 to 4,900 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees

Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Knott: Bottlebrush squirreltail, bud sagebrush, shadscale
 Sodhouse: Bottlebrush squirreltail, bud sagebrush, shadscale
 Wholan: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Bottlebrush squirreltail, bud sagebrush, shadscale

Ecological Site

Knott: 024XY002NV
 Sodhouse: 024XY002NV
 Wholan: 024XY002NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY002NV

1240--Laped very stony very fine sandy loam, 4 to 15 percent slopes

Composition

Major Components

Laped very stony very fine sandy loam, 4 to 15 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Oxcorel gravelly very fine sandy loam, 2 to 8 percent slopes--4 percent
 Inclusion 2: Rock outcrop--4 percent
 Inclusion 3: Soughe very stony loam, dry, 15 to 30 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Laped--Landform: Plateaus; geomorphic position: summit
 Inclusion 1--Landform: Plateaus; geomorphic position: footslope
 Inclusion 2--Landform: Plateaus
 Inclusion 3--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave

Major Component Description

Laped Series

Elevation: 4,500 to 5,000 feet
Precipitation: About 7 inches

Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Very stony very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Laped: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: None
 Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Laped: 024XY002NV
 Inclusion 1: 024XY002NV
 Inclusion 2: none
 Inclusion 3: 024XY020NV

1241--Laped-Boger association

Composition

Major Components

Laped gravelly very fine sandy loam, 4 to 8 percent slopes--50 percent
 Boger cobbly very fine sandy loam, 2 to 4 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Whirlo very cobbly loam, 30 to 50 percent slopes--8 percent
 Inclusion 2: Goldrun fine sand, thick surface, 2 to 8 percent slopes--3 percent
 Inclusion 3: Rock outcrop--2 percent
 Inclusion 4: Panlee very cobbly loam, dry, 15 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Laped--Landform: Plateaus; geomorphic position: backslope; aspect: south
 Boger--Landform: Plateaus; geomorphic position: summit
 Inclusion 1--Landform: Plateaus; geomorphic position: footslope
 Inclusion 2--Landform: Sand sheets
 Inclusion 3--Landform: Plateaus
 Inclusion 4--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave

Major Component Description**Laped Series**

Elevation: 4,400 to 5,500 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Gravelly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Boger Series

Elevation: 4,400 to 5,500 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 110 days

Surface layer texture: Cobbly very fine sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Laped: Bottlebrush squirreltail, bud sagebrush, shadscale

Boger: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Indian ricegrass, Sandberg bluegrass, Wyoming big sagebrush

Inclusion 2: Indian ricegrass, big sagebrush, needleandthread

Inclusion 3: None

Inclusion 4: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Laped: 024XY002NV

Boger: 024XY005NV

Inclusion 1: 024XY045NV

Inclusion 2: 024XY017NV

Inclusion 3: none

Inclusion 4: 024XY020NV

1255--Dutchjohn-Cleavage-Bregar association**Composition****Major Components**

Dutchjohn loam, 4 to 15 percent slopes--35 percent

Cleavage cobbly loam, 4 to 15 percent slopes--30 percent

Bregar very gravelly loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Walti cobbly loam, 2 to 8 percent slopes--5 percent

Inclusion 2: Tusk gravelly loam, 8 to 30 percent slopes--5 percent

Inclusion 3: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, drained, 0 to 4 percent slopes--3 percent

Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, 2 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus

Dutchjohn--Landform: Plateaus; geomorphic position: summit; position on slope: upper; shape of slope: concave

Cleavage--Landform: Plateaus; geomorphic position: summit; shape of slope: convex

Bregar--Landform: Plateaus; geomorphic position: summit; position on slope: lower; shape of slope: plane

Inclusion 1--Landform: Plateaus; geomorphic position: summit; position on slope: upper; shape of slope: plane

Inclusion 2--Landform: Plateaus; geomorphic position: backslope; position on slope: upper; aspect: north

Inclusion 3--Landform: Stream terraces

Inclusion 4--Landform: Drainageways

Major Component Description**Dutchjohn Series**

Elevation: 6,000 to 6,400 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent gravel

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from pyroclastic and extrusive volcanic rocks

Cleavage Series

Elevation: 6,000 to 6,400 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 3 percent stones and boulders; 15 percent cobbles; 25 percent gravel

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Bregar Series*Elevation:* 6,000 to 6,400 feet*Precipitation:* About 14 inches*Air temperature:* About 42 degrees*Frost-free season:* About 80 days*Surface rock fragments:* 10 percent cobbles; 35 percent gravel*Surface layer texture:* Very gravelly loam*Drainage class:* Well drained*Dominant parent material:* Residuum derived from volcanic rocks***Dominant Present Vegetation***

Dutchjohn: Idaho fescue, Letterman needlegrass, basin big sagebrush, bluebunch wheatgrass

Cleavage: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, bluegrass, low sagebrush

Bregar: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 1: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, bluegrass, low sagebrush

Inclusion 2: Idaho fescue, antelope bitterbrush, basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Inclusion 3: Nevada bluegrass, basin wildrye, meadow barley, sedge

Inclusion 4: Nevada bluegrass, alpine timothy, tufted hairgrass

Ecological Site

Dutchjohn: 025XY027NV

Cleavage: 025XY017NV

Bregar: 025XY018NV

Inclusion 1: 025XY017NV

Inclusion 2: 025XY012NV

Inclusion 3: 025XY006NV

Inclusion 4: 025XY005NV

1260--Weso-Trocken association***Composition*****Major Components**

Weso very fine sandy loam, 0 to 2 percent slopes--60 percent

Trocken gravelly very fine sandy loam, cool, 0 to 2 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Whirlo very fine sandy loam, 0 to 2 percent slopes--10 percent

Map Unit Setting*Landscape position:* Intermontane basins

Weso--Landform: Lagoons

Trocken--Landform: Longshore bars (relict)

Inclusion 1--Landform: Drainageways

Major Component Description**Weso Series***Elevation:* 4,200 to 4,400 feet*Precipitation:* About 7 inches*Air temperature:* About 50 degrees*Frost-free season:* About 110 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks, loess and volcanic ash**Trocken Series***Elevation:* 4,200 to 4,400 feet*Precipitation:* About 6 inches*Air temperature:* About 52 degrees*Frost-free season:* About 120 days*Surface layer texture:* Gravelly very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks***Dominant Present Vegetation***

Weso: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Trocken: Sandberg bluegrass, bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale, spiny hopsage

Ecological Site

Weso: 024XY002NV

Trocken: 024XY002NV

Inclusion 1: 024XY002NV

1271--Gol-Say-Rock outcrop association***Composition*****Major Components**

Gol very bouldery sandy loam, 30 to 75 percent slopes--30 percent

Say very bouldery loam, 30 to 75 percent slopes--30 percent

Rock outcrop--25 percent

Contrasting Inclusions

Inclusion 1: Harcany very cobbly loam, 30 to 50 percent slopes--6 percent

Inclusion 2: Lithic Xeric Torriorthents, loamy, mixed, nonacid, frigid very cobbly loam, 30 to 50 percent slopes--3 percent

Inclusion 3: Bregar stony loam, 15 to 50 percent slopes--3 percent
 Inclusion 4: Rodock gravelly loam, 0 to 4 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains
 Gol--Landform: Mountains; geomorphic position: backslope; aspect: south
 Say--Landform: Mountains; geomorphic position: backslope; aspect: north
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Mountains; geomorphic position: backslope
 Inclusion 3--Landform: Mountains; geomorphic position: summit
 Inclusion 4--Landform: Drainageways

Major Component Description

Gol Series

Elevation: 5,500 to 7,000 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface rock fragments: 4 percent stones and boulders; 5 percent cobbles; 10 percent gravel
Surface layer texture: Very bouldery sandy loam
Drainage class: Well drained
Dominant parent material: Residuum derived from granitic rocks

Say Series

Elevation: 5,500 to 7,500 feet
Precipitation: About 13 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface layer texture: Very bouldery loam
Drainage class: Well drained
Dominant parent material: Residuum derived from granitic rocks

Rock outcrop Miscellaneous Area

Elevation: 5,500 to 7,500 feet

Dominant Present Vegetation

Gol: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Say: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush
 Rock outcrop: None
 Inclusion 1: Idaho fescue, serviceberry, snowberry

Inclusion 2: Sandberg bluegrass, Utah juniper, big sagebrush
 Inclusion 3: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush
 Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Gol: 024XY028NV
 Say: 024XY021NV
 Rock outcrop: None
 Inclusion 1: 024XY034NV
 Inclusion 2: 025XY059NV
 Inclusion 3: 024XY016NV
 Inclusion 4: 025XY003NV

1285--Igdell-Gochea association

Composition

Major Components

Igdell gravelly loam, 2 to 8 percent slopes--65 percent
 Gochea gravelly loam, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Igdell cobbly loam, 8 to 30 percent slopes--8 percent
 Inclusion 2: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, drained, 2 to 4 percent slopes--3 percent
 Inclusion 3: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, 2 to 4 percent slopes--2 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Igdell--Landform: Fan remnants
 Gochea--Landform: Fan remnants; geomorphic position: backslope; shape of slope: concave
 Inclusion 1--Landform: Fan remnants; geomorphic position: backslope; shape of slope: convex
 Inclusion 2--Landform: Stream terraces
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Pediments

Major Component Description

Igdell Series

Elevation: 6,000 to 6,200 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 15 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Gochea Series

Elevation: 6,000 to 6,200 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 90 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Igdell: Idaho fescue, antelope bitterbrush, bluegrass, low sagebrush, wheatgrass

Gochea: Idaho fescue, basin big sagebrush, bluebunch wheatgrass

Inclusion 1: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush

Inclusion 2: Nevada bluegrass, basin wildrye

Inclusion 3: Nevada bluegrass, sedge, tufted hairgrass

Inclusion 4: None

Ecological Site

Igdell: 025XY017NV

Gochea: 025XY027NV

Inclusion 1: 025XY017NV

Inclusion 2: 025XY006NV

Inclusion 3: 025XY005NV

Inclusion 4: none

1291--Tresed-Isolde association

Composition

Major Components

Tresed loamy very fine sand, 0 to 2 percent slopes--55 percent

Isolde fine sand, slightly saline, 4 to 15 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Tresed fine sand, overblown, 0 to 4 percent slopes--7 percent

Inclusion 2: Boton silt loam, 0 to 2 percent slopes, ponded--3 percent

Inclusion 3: Essal loamy fine sand, thick surface, 0 to 2 percent slopes--3 percent

Inclusion 4: Playas--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Tresed--Landform: Lake plains

Isolde--Landform: Dunes

Inclusion 1--Landform: Lake plains

Inclusion 2--Landform: Lake plains

Inclusion 3--Landform: Lake plains; position on slope: upper

Inclusion 4--Landform: Playas

Major Component Description

Tresed Series

Elevation: 4,100 to 4,300 feet

Precipitation: About 6 inches

Air temperature: About 52 degrees

Frost-free season: About 120 days

Surface layer texture: Loamy very fine sand

Drainage class: Moderately well drained

Dominant parent material: Alluvium derived from lacustrine sediments

Isolde Series

Elevation: 4,100 to 4,300 feet

Precipitation: About 7 inches

Air temperature: About 52 degrees

Frost-free season: About 120 days

Surface layer texture: Fine sand

Drainage class: Excessively drained

Dominant parent material: Eolian sand

Dominant Present Vegetation

Tresed: Black greasewood, bottlebrush squirreltail, shadscale

Isolde: Indian ricegrass, black greasewood, horsebrush

Inclusion 1: Indian ricegrass, black greasewood, spiny hopsage

Inclusion 2: Black greasewood, seepweed

Inclusion 3: Indian ricegrass, big sagebrush, black greasewood

Inclusion 4: None

Ecological Site

Tresed: 024XY003NV

Isolde: 027XY016NV

Inclusion 1: 027XY016NV

Inclusion 2: 027XY024NV

Inclusion 3: 024XY022NV

Inclusion 4: none

1292--Tresed loamy very fine sand

Composition

Major Components

Tresed loamy very fine sand, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Boton silt loam, 0 to 2 percent slopes, ponded--5 percent
 Inclusion 2: Playas--3 percent
 Inclusion 3: Isolde fine sand, moderately saline, 4 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Tressed--Landform: Lake plains
 Inclusion 1--Landform: Lake plains
 Inclusion 2--Landform: Playas
 Inclusion 3--Landform: Dunes

Major Component Description**Tressed Series**

Elevation: 4,100 to 4,300 feet
Precipitation: About 6 inches
Air temperature: About 52 degrees
Frost-free season: About 120 days
Surface layer texture: Loamy very fine sand
Drainage class: Moderately well drained
Dominant parent material: Alluvium derived from lacustrine sediments

Dominant Present Vegetation

Tressed: Black greasewood, bottlebrush squirreltail, seepweed, shadscale
 Inclusion 1: Black greasewood, seepweed
 Inclusion 2: None
 Inclusion 3: Indian ricegrass, black greasewood, horsebrush

Ecological Site

Tressed: 024XY003NV
 Inclusion 1: 027XY024NV
 Inclusion 2: none
 Inclusion 3: 027XY016NV

1310--Dewar-Tenabo association**Composition****Major Components**

Dewar silt loam, 2 to 4 percent slopes--45 percent
 Tenabo very fine sandy loam, 0 to 4 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Sodhouse very fine sandy loam, moist, 2 to 4 percent slopes--9 percent
 Inclusion 2: Midraw cobbly very fine sandy loam, 2 to 8 percent slopes--4 percent

Inclusion 3: Kingsriver loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Dewar--Landform: Plateaus; geomorphic position: backslope
 Tenabo--Landform: Plateaus; geomorphic position: summit
 Inclusion 1--Landform: Plateaus; geomorphic position: summit; position on slope: lower; shape of slope: concave
 Inclusion 2--Landform: Plateaus; geomorphic position: summit; position on slope: lower; shape of slope: plane
 Inclusion 3--Landform: Drainageways

Major Component Description**Dewar Series**

Elevation: 5,000 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Tenabo Series

Elevation: 5,000 to 5,600 feet
Precipitation: About 7 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dewar: Indian ricegrass, Wyoming big sagebrush, spiny hopsage
 Tenabo: Bottlebrush squirreltail, shadscale, winterfat
 Inclusion 1: Bottlebrush squirreltail, winterfat
 Inclusion 2: Indian ricegrass, Wyoming big sagebrush, spiny hopsage
 Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Dewar: 024XY020NV
 Tenabo: 024XY060NV
 Inclusion 1: 024XY059NV
 Inclusion 2: 024XY020NV
 Inclusion 3: 025XY003NV

1312--Dewar-Dacker association**Composition****Major Components**

Dewar very fine sandy loam, 0 to 2 percent slopes--45 percent

Dacker very fine sandy loam, 4 to 15 percent slopes--25 percent

Dewar very fine sandy loam, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Hunnton very fine sandy loam, 2 to 8 percent slopes--5 percent

Inclusion 2: Rodock gravelly loam, dry, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Dewar--Landform: Fan remnants; geomorphic position: summit

Dacker--Landform: Fan remnants; geomorphic position: backslope; aspect: north

Dewar--Landform: Fan remnants; geomorphic position: backslope; aspect: south

Inclusion 1--Landform: Fan remnants; geomorphic position: summit; position on slope: upper

Inclusion 2--Landform: Inset fans

Major Component Description**Dewar Series**

Elevation: 5,500 to 6,100 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dacker Series

Elevation: 5,500 to 6,100 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dewar Series

Elevation: 5,500 to 6,100 feet

Precipitation: About 9 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dewar: Wyoming big sagebrush

Dacker: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Dewar: Wyoming big sagebrush

Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 2: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Ecological Site

Dewar: 024XY005NV

Dacker: 025XY019NV

Dewar: 024XY005NV

Inclusion 1: 025XY019NV

Inclusion 2: 025XY014NV

1313--Dewar-Sodhouse-Midraw association**Composition****Major Components**

Dewar cobbly silt loam, 4 to 15 percent slopes--40 percent

Sodhouse silt loam, 2 to 8 percent slopes--25 percent

Midraw cobbly silt loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Tenabo very fine sandy loam, 2 to 8 percent slopes--9 percent

Inclusion 2: Dewar very fine sandy loam, 4 to 15 percent slopes--3 percent

Inclusion 3: Burrita very cobbly loam, warm, 4 to 15 percent slopes--2 percent

Inclusion 4: Rodock extremely cobbly loam, 2 to 4 percent slopes, occasionally flooded--1 percent

Map Unit Setting

Landscape position: Plateaus

Dewar--Landform: Plateaus; geomorphic position: backslope

Sodhouse--Landform: Plateaus; geomorphic position: summit; position on slope: upper; shape of slope: concave

Midraw--Landform: Plateaus; geomorphic position: summit; position on slope: upper

Inclusion 1--Landform: Plateaus; geomorphic position: summit; position on slope: lower

Inclusion 2--Landform: Plateaus; geomorphic position: backslope; aspect: north
 Inclusion 3--Landform: Plateaus; geomorphic position: backslope; position on slope: upper
 Inclusion 4--Landform: Drainageways

Major Component Description

Dewar Series

Elevation: 5,200 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Cobbly silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Sodhouse Series

Elevation: 5,200 to 5,600 feet
Precipitation: About 7 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Midraw Series

Elevation: 5,200 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface rock fragments: 5 percent cobbles; 10 percent gravel
Surface layer texture: Cobbly silt loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Dewar: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Sodhouse: Bottlebrush squirreltail, winterfat
 Midraw: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Bottlebrush squirreltail, bud sagebrush, shadscale
 Inclusion 2: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush
 Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 4: Wyoming big sagebrush, bluebunch wheatgrass

Ecological Site

Dewar: 024XY020NV
 Sodhouse: 024XY059NV
 Midraw: 024XY020NV
 Inclusion 1: 024XY060NV
 Inclusion 2: 024XY005NV
 Inclusion 3: 024XY035NV
 Inclusion 4: 025XY050NV

1314--Dewar-Zevadez association

Composition

Major Components

Dewar very fine sandy loam, 2 to 4 percent slopes--45 percent
 Zevadez gravelly loam, moist, 4 to 8 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Dewar very gravelly loam, dry, 15 to 30 percent slopes--5 percent
 Inclusion 2: Devada cobbly loam, 8 to 15 percent slopes--5 percent
 Inclusion 3: Clementine loam, drained, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Dewar--Landform: Fan remnants; geomorphic position: summit
 Zevadez--Landform: Fan remnants; geomorphic position: backslope
 Inclusion 1--Landform: Fan remnants; geomorphic position: backslope; position on slope: lower; aspect: south
 Inclusion 2--Landform: Pediments; geomorphic position: shoulder; position on slope: upper
 Inclusion 3--Landform: Drainageways

Major Component Description

Dewar Series

Elevation: 5,000 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Zevadez Series

Elevation: 5,000 to 5,500 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees

Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Dewar: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Zevadez: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 2: Sandberg bluegrass, Thurber needlegrass, low sagebrush
 Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Dewar: 024XY005NV
 Zevadez: 024XY013NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY018NV
 Inclusion 3: 025XY003NV

1315--Dewar-Chiara-Burrita association

Composition

Major Components

Dewar gravelly very fine sandy loam, 2 to 4 percent slopes--35 percent
 Chiara very fine sandy loam, 8 to 15 percent slopes--30 percent
 Burrita very cobbly loam, warm, 8 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Zymans cobbly loam, 30 to 50 percent slopes--5 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Devada cobbly loam, 8 to 30 percent slopes--3 percent
 Inclusion 4: Devada extremely gravelly loam, 8 to 30 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus
 Dewar--Landform: Plateaus; geomorphic position: summit
 Chiara--Landform: Plateaus; geomorphic position: backslope
 Burrita--Landform: Plateaus; geomorphic position: backslope
 Inclusion 1--Landform: Plateaus; geomorphic position: backslope; aspect: north

Inclusion 2--Landform: Plateaus
 Inclusion 3--Landform: Plateaus; geomorphic position: shoulder
 Inclusion 4--Landform: Plateaus; geomorphic position: shoulder

Major Component Description

Dewar Series

Elevation: 4,600 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Chiara Series

Elevation: 4,600 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Burrita Series

Elevation: 4,600 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 2 percent stones and boulders; 15 percent cobbles; 30 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Dewar: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Chiara: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 2: None
 Inclusion 3: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 4: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush

Ecological Site

Dewar: 024XY005NV
 Chiara: 024XY005NV
 Burrita: 024XY035NV
 Inclusion 1: 023XY020NV
 Inclusion 2: none
 Inclusion 3: 024XY018NV
 Inclusion 4: 023XY021NV

1321--Vanwyper-Midraw association**Composition****Major Components**

Vanwyper very cobbly loam, 30 to 50 percent slopes--35 percent
 Vanwyper cobbly loam, 15 to 50 percent slopes--30 percent
 Midraw very cobbly loam, 4 to 15 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--7 percent
 Inclusion 2: Carstump cobbly loam, 15 to 50 percent slopes--2 percent
 Inclusion 3: Devada very cobbly loam, warm, 4 to 15 percent slopes--1 percent

Map Unit Setting

Landscape position: Plateaus
 Vanwyper--Landform: Plateaus; geomorphic position: backslope; aspect: south
 Vanwyper--Landform: Plateaus; geomorphic position: backslope; aspect: north
 Midraw--Landform: Plateaus; geomorphic position: summit
 Inclusion 1--Landform: Plateaus
 Inclusion 2--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 3--Landform: Plateaus; geomorphic position: shoulder; shape of slope: convex

Major Component Description**Vanwyper Series**

Elevation: 5,400 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Vanwyper Series

Elevation: 5,400 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Midraw Series

Elevation: 5,400 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Midraw: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: None
 Inclusion 2: Basin wildrye, big sagebrush, bluebunch wheatgrass
 Inclusion 3: Bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush

Ecological Site

Vanwyper: 024XY028NV
 Vanwyper: 025XY019NV
 Midraw: 025XY019NV
 Inclusion 1: none
 Inclusion 2: 025XY014NV
 Inclusion 3: 025XY018NV

1322--Vanwyper-Devada association**Composition****Major Components**

Vanwyper cobbly loam, 8 to 30 percent slopes--40 percent
 Devada very cobbly loam, 4 to 15 percent slopes--25 percent
 Vanwyper very cobbly loam, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

- Inclusion 1: Carstump cobbly loam, 15 to 50 percent slopes--5 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Midraw very cobbly loam, 4 to 15 percent slopes--4 percent
 Inclusion 4: Devada extremely cobbly clay loam, 4 to 15 percent slopes--1 percent

Map Unit Setting

- Landscape position:** Plateaus
 Vanwyper--Landform: Plateaus; geomorphic position: backslope
 Devada--Landform: Plateaus; geomorphic position: summit
 Vanwyper--Landform: Plateaus; geomorphic position: backslope; aspect: south
 Inclusion 1--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Plateaus
 Inclusion 3--Landform: Plateaus; geomorphic position: summit
 Inclusion 4--Landform: Drainageways

Major Component Description**Vanwyper Series**

- Elevation:** 5,400 to 6,100 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Devada Series

- Elevation:** 5,400 to 6,100 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Vanwyper Series

- Elevation:** 5,400 to 6,100 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

- Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Devada: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 1: Thurber needlegrass, basin big sagebrush, bluebunch wheatgrass
 Inclusion 2: None
 Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 4: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Ecological Site

- Vanwyper: 025XY019NV
 Devada: 025XY018NV
 Vanwyper: 024XY028NV
 Inclusion 1: 025XY014NV
 Inclusion 2: none
 Inclusion 3: 024XY005NV
 Inclusion 4: 025XY022NV

1324--Vanwyper-Panlee-Gowjai association**Composition****Major Components**

- Vanwyper very cobbly loam, 30 to 50 percent slopes--35 percent
 Panlee very fine sandy loam, 30 to 50 percent slopes--25 percent
 Gowjai cobbly loam, 30 to 50 percent slopes--25 percent

Contrasting Inclusions

- Inclusion 1: Burrita gravelly loam, warm, 15 to 50 percent slopes--5 percent
 Inclusion 2: Soughe cobbly fine sandy loam, 15 to 50 percent slopes--5 percent
 Inclusion 3: Rock outcrop--5 percent

Map Unit Setting

- Landscape position:** Mountains
 Vanwyper--Landform: Mountains; geomorphic position: backslope; aspect: south
 Panlee--Landform: Mountains; geomorphic position: backslope; aspect: north
 Gowjai--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect:

north
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; aspect: south
 Inclusion 2--Landform: Mountains; geomorphic position: summit
 Inclusion 3--Landform: Mountains

Major Component Description

Vanwyper Series

Elevation: 5,800 to 6,500 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Panlee Series

Elevation: 5,800 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Gowjai Series

Elevation: 5,800 to 6,500 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Panlee: Thurber needlegrass, big sagebrush, needleandthread
 Gowjai: Idaho fescue, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: None

Ecological Site

Vanwyper: 024XY028NV
 Panlee: 024XY058NV

Gowjai: 024XY021NV
 Inclusion 1: 024XY035NV
 Inclusion 2: 024XY005NV
 Inclusion 3: none

1327--Vanwyper-Gowjai-Soughe association

Composition

Major Components

Vanwyper very cobbly loam, 15 to 50 percent slopes--40 percent
 Gowjai silt loam, 15 to 50 percent slopes--30 percent
 Soughe very gravelly loam, 8 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Kingsriver loam, drained, 0 to 2 percent slopes--5 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Devada cobbly loam, 15 to 50 percent slopes--3 percent
 Inclusion 4: Burrita gravelly loam, warm, 15 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Hills
 Vanwyper--Landform: Hills; geomorphic position: backslope; aspect: south
 Gowjai--Landform: Hills; geomorphic position: backslope; aspect: north
 Soughe--Landform: Hills; geomorphic position: summit
 Inclusion 1--Landform: Drainageways
 Inclusion 2--Landform: Hills
 Inclusion 3--Landform: Hills; geomorphic position: backslope; position on slope: upper; shape of slope: convex; aspect: north
 Inclusion 4--Landform: Hills; geomorphic position: backslope; position on slope: lower; aspect: south

Major Component Description

Vanwyper Series

Elevation: 5,000 to 6,500 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Gowjai Series*Elevation:* 5,000 to 6,500 feet*Precipitation:* About 12 inches*Air temperature:* About 44 degrees*Frost-free season:* About 90 days*Surface rock fragments:* 15 percent cobbles; 35 percent gravel*Surface layer texture:* Silt loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks**Soughe Series***Elevation:* 5,000 to 6,500 feet*Precipitation:* About 10 inches*Air temperature:* About 46 degrees*Frost-free season:* About 90 days*Surface layer texture:* Very gravelly loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from mixed rocks***Dominant Present Vegetation***

Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Gowjai: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Soughe: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Inclusion 2: None

Inclusion 3: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Inclusion 4: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Ecological Site

Vanwyper: 025XY015NV

Gowjai: 025XY017NV

Soughe: 025XY019NV

Inclusion 1: 025XY003NV

Inclusion 2: none

Inclusion 3: 025XY018NV

Inclusion 4: 024XY035NV

1331--Siscab-Aycab-Ola association***Composition*****Major Components**

Siscab very bouldery loamy coarse sand, 15 to 50 percent slopes--45 percent

Aycab gravelly coarse sandy loam, 30 to 50 percent slopes--20 percent

Ola very bouldery sandy loam, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--7 percent

Inclusion 2: Lithic Haploxerolls, loamy, mixed, frigid gravelly sandy loam, 8 to 30 percent slopes--5 percent

Inclusion 3: Cumulic Endoaquolls, fine-loamy, mixed, frigid stony loam, drained, 2 to 15 percent slopes--2 percent

Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, frigid stony loam, 2 to 15 percent slopes--1 percent

Map Unit Setting*Landscape position:* Mountains

Siscab--Landform: Mountains; geomorphic position: backslope; aspect: south

Aycab--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Ola--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Inclusion 1--Landform: Mountains

Inclusion 2--Landform: Mountains; geomorphic position: summit

Inclusion 3--Landform: Stream terraces

Inclusion 4--Landform: Stream terraces

Major Component Description**Siscab Series***Elevation:* 6,200 to 6,900 feet*Precipitation:* About 14 inches*Air temperature:* About 47 degrees*Frost-free season:* About 100 days*Surface layer texture:* Very bouldery loamy coarse sand*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from granitic rocks**Aycab Series***Elevation:* 6,200 to 6,900 feet*Precipitation:* About 16 inches*Air temperature:* About 43 degrees*Frost-free season:* About 65 days*Surface rock fragments:* 20 percent gravel*Surface layer texture:* Gravelly coarse sandy loam*Drainage class:* Well drained*Dominant parent material:* Residuum derived from granitic rocks

Ola Series*Elevation:* 6,200 to 6,900 feet*Precipitation:* About 14 inches*Air temperature:* About 43 degrees*Frost-free season:* About 80 days*Surface layer texture:* Very bouldery sandy loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from granitic rocks***Dominant Present Vegetation***

Siscab: Antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush

Aycab: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Ola: Idaho fescue, mountain big sagebrush

Inclusion 1: None

Inclusion 2: Idaho fescue, low sagebrush

Inclusion 3: Basin wildrye, mountain big sagebrush

Inclusion 4: Bluegrass, rush

Ecological Site

Siscab: 023XY042NV

Aycab: 023XY048NV

Ola: 023XY043NV

Inclusion 1: none

Inclusion 2: 023XY008NV

Inclusion 3: 023XY056NV

Inclusion 4: 023XY025NV

1332--Siscab-Ola-Rock outcrop association***Composition*****Major Components**

Siscab very bouldery loamy coarse sand, 30 to 50 percent slopes--45 percent

Ola very bouldery sandy loam, 30 to 50 percent slopes--25 percent

Rock outcrop--15 percent

Contrasting Inclusions

Inclusion 1: Aycab coarse sandy loam, 15 to 50 percent slopes--5 percent

Inclusion 2: Siscab cobbly loamy coarse sand, 4 to 15 percent slopes--7 percent

Inclusion 3: Cumulic Endoaquolls, fine-loamy, mixed, frigid stony loam, drained, 2 to 15 percent slopes--2 percent

Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, frigid stony loam, 2 to 15 percent slopes--1 percent

Map Unit Setting*Landscape position:* Mountains

Siscab--Landform: Mountains; geomorphic position: backslope; aspect: south

Ola--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: toeslope

Inclusion 3--Landform: Stream terraces

Inclusion 4--Landform: Stream terraces

Major Component Description**Siscab Series***Elevation:* 5,200 to 6,100 feet*Precipitation:* About 14 inches*Air temperature:* About 47 degrees*Frost-free season:* About 100 days*Surface layer texture:* Very bouldery loamy coarse sand*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from granitic rocks**Ola Series***Elevation:* 5,200 to 6,100 feet*Precipitation:* About 14 inches*Air temperature:* About 43 degrees*Frost-free season:* About 80 days*Surface rock fragments:* 8 percent stones and boulders; 20 percent gravel*Surface layer texture:* Very bouldery sandy loam*Drainage class:* Well drained*Dominant parent material:* Residuum and colluvium derived from granitic rocks**Rock outcrop Miscellaneous Area***Elevation:* 5,200 to 6,100 feet***Dominant Present Vegetation***

Siscab: Antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush

Ola: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Rock outcrop: None

Inclusion 1: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 3: Basin wildrye, mountain big sagebrush

Inclusion 4: Bluegrass, rush

Ecological Site

Siscab: 023XY042NV
 Ola: 023XY043NV
 Rock outcrop: None
 Inclusion 1: 023XY048NV
 Inclusion 2: 023XY057NV
 Inclusion 3: 023XY056NV
 Inclusion 4: 023XY025NV

1333--Siscab-Say-Rock outcrop association**Composition****Major Components**

Siscab very bouldery sandy loam, 30 to 75 percent slopes--45 percent
 Say very bouldery loam, 30 to 75 percent slopes--30 percent
 Rock outcrop--15 percent

Contrasting Inclusions

Inclusion 1: Roca very cobbly loam, 15 to 50 percent slopes--5 percent
 Inclusion 2: Hackwood silt loam, wet, 15 to 30 percent slopes--3 percent
 Inclusion 3: Fluvaquentic Endoaquolls, loamy-skeletal, mixed, mesic gravelly sandy loam, 2 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Siscab--Landform: Mountains; geomorphic position: backslope; aspect: south

Say--Landform: Mountains; geomorphic position: backslope; aspect: north

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: south

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 3--Landform: Stream terraces

Major Component Description**Siscab Series**

Elevation: 5,500 to 7,500 feet
Precipitation: About 14 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very bouldery sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from granitic rocks

Say Series

Elevation: 5,500 to 7,500 feet
Precipitation: About 13 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface layer texture: Very bouldery loam
Drainage class: Well drained
Dominant parent material: Residuum derived from granitic rocks

Rock outcrop Miscellaneous Area

Elevation: 5,500 to 7,500 feet

Dominant Present Vegetation

Siscab: Thurber needlegrass, bluebunch wheatgrass, mountain big sagebrush
 Say: Idaho fescue, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Rock outcrop: None
 Inclusion 1: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 2: Mountain brome, quaking aspen, snowberry
 Inclusion 3: Bluegrass, narrowleaf cottonwood, willow

Ecological Site

Siscab: 023XY042NV
 Say: 024XY021NV
 Rock outcrop: None
 Inclusion 1: 024XY028NV
 Inclusion 2: 025XY002NV
 Inclusion 3: 025XY053NV

1334--Siscab-Eaglerock-Rock outcrop association**Composition****Major Components**

Siscab very bouldery sandy loam, 15 to 50 percent slopes--40 percent
 Eaglerock very stony sandy loam, 15 to 50 percent slopes--35 percent
 Rock outcrop--10 percent

Contrasting Inclusions

Inclusion 1: Hackwood silt loam, 4 to 15 percent slopes--6 percent
 Inclusion 2: Gol very gravelly sandy loam, 30 to 50 percent slopes--5 percent
 Inclusion 3: Kingsriver loam, drained, 0 to 2 percent slopes--4 percent

Map Unit Setting

Landscape position: Mountains
 Siscab--Landform: Mountains; geomorphic position:
 backslope; aspect: south
 Eaglerock--Landform: Mountains; geomorphic
 position: backslope; shape of slope: plane;
 aspect: north
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; geomorphic
 position: backslope; shape of slope: concave;
 aspect: north
 Inclusion 2--Landform: Mountains; geomorphic
 position: backslope; aspect: south
 Inclusion 3--Landform: Stream terraces

Major Component Description**Siscab Series**

Elevation: 5,000 to 6,000 feet
Precipitation: About 14 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very bouldery sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from granitic rocks

Eaglerock Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 12 inches
Air temperature: About 45 degrees
Frost-free season: About 100 days
Surface layer texture: Very stony sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from granitic rocks

Rock outcrop Miscellaneous Area

Elevation: 5,000 to 6,000 feet

Dominant Present Vegetation

Siscab: Thurber needlegrass, bluebunch wheatgrass,
 mountain big sagebrush
 Eaglerock: Basin wildrye, big sagebrush, bluebunch
 wheatgrass
 Rock outcrop: None
 Inclusion 1: Mountain brome, quaking aspen,
 snowberry
 Inclusion 2: Thurber needlegrass, big sagebrush,
 bluebunch wheatgrass
 Inclusion 3: Basin big sagebrush, basin wildrye,
 rubber rabbitbrush

Ecological Site

Siscab: 023XY042NV

Eaglerock: 023XY039NV
 Rock outcrop: None
 Inclusion 1: 025XY065NV
 Inclusion 2: 024XY028NV
 Inclusion 3: 025XY003NV

1335--Siscab-Westbutte-Rock outcrop association**Composition****Major Components**

Siscab very stony sandy loam, 15 to 50 percent
 slopes--45 percent
 Westbutte stony loam, 30 to 50 percent slopes--30
 percent
 Rock outcrop--10 percent
Contrasting Inclusions
 Inclusion 1: Harcany gravelly sandy loam, moist, 30
 to 50 percent slopes--6 percent
 Inclusion 2: Ola very gravelly sandy loam, 15 to 50
 percent slopes--5 percent
 Inclusion 3: Bregar very stony loam, 8 to 30 percent
 slopes--2 percent
 Inclusion 4: Clementine stony loam, high water
 table, 4 to 15 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Siscab--Landform: Mountains; geomorphic position:
 backslope; aspect: south
 Westbutte--Landform: Mountains; geomorphic
 position: backslope; shape of slope: convex;
 aspect: north
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; geomorphic
 position: backslope; shape of slope: concave;
 aspect: north
 Inclusion 2--Landform: Mountains; geomorphic
 position: backslope; shape of slope: concave;
 aspect: north
 Inclusion 3--Landform: Mountains; geomorphic
 position: summit
 Inclusion 4--Landform: Stream terraces

Major Component Description**Siscab Series**

Elevation: 5,700 to 7,000 feet
Precipitation: About 14 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very stony sandy loam
Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from granitic rocks

Westbutte Series

Elevation: 5,700 to 7,000 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Stony loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 5,700 to 7,000 feet

Dominant Present Vegetation

Siscab: Thurber needlegrass, bluebunch wheatgrass, mountain big sagebrush

Westbutte: Idaho fescue, bluegrass, threetip sagebrush

Rock outcrop: None

Inclusion 1: Mountain big sagebrush, mountain brome, snowberry

Inclusion 2: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 3: Bluegrass, bottlebrush squirreltail, low sagebrush

Inclusion 4: Bluegrass, iris, rush, sedge

Ecological Site

Siscab: 023XY042NV

Westbutte: 023XY053NV

Rock outcrop: None

Inclusion 1: 023XY065NV

Inclusion 2: 023XY043NV

Inclusion 3: 023XY008NV

Inclusion 4: 023XY025NV

1341--Longcreek-Menbo-Rock outcrop association

Composition

Major Components

Longcreek very cobbly loam, 30 to 50 percent slopes--50 percent

Menbo very gravelly loam, 30 to 50 percent slopes--25 percent

Rock outcrop--10 percent

Contrasting Inclusions

Inclusion 1: Cleavage extremely gravelly loam, 8 to 30 percent slopes--7 percent

Inclusion 2: Menbo gravelly loam, cool, 50 to 75 percent slopes--4 percent

Inclusion 3: Bullump cobbly loam, cool, 15 to 30 percent slopes--3 percent

Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, frigid loam, 2 to 15 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Longcreek--Landform: Mountains; geomorphic position: backslope; aspect: south

Menbo--Landform: Mountains; geomorphic position: backslope; aspect: north

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; geomorphic position: shoulder

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave

Inclusion 4--Landform: Stream terraces

Major Component Description

Longcreek Series

Elevation: 5,500 to 6,400 feet

Precipitation: About 12 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Menbo Series

Elevation: 5,500 to 6,400 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 8 percent cobbles; 15 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 5,500 to 6,400 feet

Dominant Present Vegetation

Longcreek: Bluebunch wheatgrass, mountain big

sagebrush
 Menbo: Idaho fescue, bluebunch wheatgrass,
 mountain big sagebrush
 Rock outcrop: None
 Inclusion 1: Idaho fescue, bluebunch wheatgrass,
 low sagebrush
 Inclusion 2: Idaho fescue, mountain big sagebrush
 Inclusion 3: Mountain big sagebrush, mountain
 brome, snowberry
 Inclusion 4: Bluegrass, rush

Ecological Site

Longcreek: 023XY018NV
 Menbo: 023XY007NV
 Rock outcrop: None
 Inclusion 1: 023XY008NV
 Inclusion 2: 023XY054NV
 Inclusion 3: 023XY019NV
 Inclusion 4: 023XY025NV

1342--Longcreek-Rock outcrop complex, 50 to 75 percent slopes

Composition

Major Components

Longcreek very cobbly loam, 50 to 75 percent
 slopes--75 percent
 Rock outcrop--10 percent

Contrasting Inclusions

Inclusion 1: Menbo very cobbly loam, 15 to 50
 percent slopes--8 percent
 Inclusion 2: Harcany gravelly loam, 8 to 30 percent
 slopes--3 percent
 Inclusion 3: Clementine loam, 2 to 15 percent
 slopes--2 percent
 Inclusion 4: Longcreek extremely stony loam, 15 to
 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Longcreek--Landform: Mountains; geomorphic
 position: backslope; aspect: south
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; geomorphic
 position: backslope
 Inclusion 2--Landform: Mountains; geomorphic
 position: backslope; shape of slope: concave;
 aspect: north
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Mountains; geomorphic
 position: shoulder

Major Component Description

Longcreek Series

Elevation: 5,600 to 6,400 feet
Precipitation: About 12 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface rock fragments: 2 percent stones and
 boulders; 20 percent cobbles; 20 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium
 derived from volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 5,600 to 6,400 feet

Dominant Present Vegetation

Longcreek: Sandberg bluegrass, antelope
 bitterbrush, bluebunch wheatgrass, mountain big
 sagebrush
 Rock outcrop: None
 Inclusion 1: Idaho fescue, bluebunch wheatgrass,
 mountain big sagebrush
 Inclusion 2: Mountain big sagebrush, mountain
 brome, needlegrass, snowberry
 Inclusion 3: Bluegrass, rush
 Inclusion 4: Antelope bitterbrush, basin wildrye,
 bluebunch wheatgrass, mountain big sagebrush

Ecological Site

Longcreek: 023XY018NV
 Rock outcrop: None
 Inclusion 1: 023XY007NV
 Inclusion 2: 023XY065NV
 Inclusion 3: 023XY025NV
 Inclusion 4: 023XY015NV

1344--Longcreek-Softscrabble-Anawalt association

Composition

Major Components

Longcreek very cobbly loam, 30 to 50 percent
 slopes--50 percent
 Softscrabble very stony loam, 30 to 50 percent
 slopes--20 percent
 Anawalt very gravelly loam, 8 to 30 percent slopes,
 eroded--15 percent

Contrasting Inclusions

Inclusion 1: Ninemile very gravelly loam, 15 to 30
 percent slopes--7 percent

Inclusion 2: Carstump stony loam, 15 to 50 percent slopes--4 percent

Inclusion 3: Westbutte cobbly loam, 15 to 30 percent slopes--2 percent

Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains

Longcreek--Landform: Mountains; geomorphic position: backslope; aspect: south

Softscrabble--Landform: Mountains; geomorphic position: backslope; aspect: north

Anawalt--Landform: Mountains; geomorphic position: summit; aspect: south

Inclusion 1--Landform: Mountains; geomorphic position: shoulder; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: backslope

Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: lower; shape of slope: convex

Inclusion 4--Landform: Mountains

Major Component Description

Longcreek Series

Elevation: 5,600 to 6,200 feet

Precipitation: About 12 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Softscrabble Series

Elevation: 5,600 to 6,200 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 60 days

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Anawalt Series

Elevation: 5,600 to 6,200 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent cobbles; 45 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Longcreek: Bluebunch wheatgrass, mountain big sagebrush

Softscrabble: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Anawalt: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush

Inclusion 1: Idaho fescue, bottlebrush squirreltail, low sagebrush

Inclusion 2: Antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush

Inclusion 3: Idaho fescue, threetip sagebrush

Inclusion 4: None

Ecological Site

Longcreek: 023XY018NV

Softscrabble: 023XY007NV

Anawalt: 023XY021NV

Inclusion 1: 023XY017NV

Inclusion 2: 023XY015NV

Inclusion 3: 023XY053NV

Inclusion 4: none

1345--Longcreek-Zymans association

Composition

Major Components

Longcreek very stony loam, dry, 30 to 50 percent slopes--50 percent

Zymans cobbly loam, moist, 15 to 50 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Westbutte loam, 30 to 50 percent slopes--7 percent

Inclusion 2: Zymans loam, 4 to 15 percent slopes--5 percent

Inclusion 3: Devada very cobbly loam, 4 to 15 percent slopes--2 percent

Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Mountains

Longcreek--Landform: Mountains; geomorphic position: backslope; aspect: south

Zymans--Landform: Mountains; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: footslope; position on slope: lower
 Inclusion 3--Landform: Mountains; geomorphic position: summit
 Inclusion 4--Landform: Mountains

Major Component Description

Longcreek Series

Elevation: 5,200 to 6,200 feet
Precipitation: About 12 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Zymans Series

Elevation: 5,200 to 6,200 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Longcreek: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Zymans: Thurber needlegrass, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 1: Idaho fescue, threetip sagebrush
 Inclusion 2: Basin wildrye, big sagebrush, bluebunch wheatgrass
 Inclusion 3: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 4: None

Ecological Site

Longcreek: 023XY039NV
 Zymans: 023XY041NV
 Inclusion 1: 023XY053NV
 Inclusion 2: 023XY020NV
 Inclusion 3: 023XY060NV
 Inclusion 4: none

1360--Midraw association

Composition

Major Components

Midraw gravelly loam, 4 to 15 percent slopes--50

percent

Midraw very fine sandy loam, 4 to 15 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Snowmore very fine sandy loam, 2 to 4 percent slopes--10 percent
 Inclusion 2: Devada cobbly loam, 4 to 15 percent slopes--3 percent
 Inclusion 3: Soughe cobbly loam, 2 to 8 percent slopes--1 percent
 Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Hills
 Midraw--Landform: Hills; geomorphic position: summit; aspect: south
 Midraw--Landform: Hills; geomorphic position: backslope; aspect: north
 Inclusion 1--Landform: Hills; geomorphic position: footslope
 Inclusion 2--Landform: Hills; geomorphic position: backslope; position on slope: upper; aspect: north
 Inclusion 3--Landform: Hills; geomorphic position: summit; position on slope: lower
 Inclusion 4--Landform: Hills

Major Component Description

Midraw Series

Elevation: 5,400 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Midraw Series

Elevation: 5,400 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Midraw: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail

Midraw: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 3: Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 4: None

Ecological Site

Midraw: 024XY005NV
 Midraw: 025XY019NV
 Inclusion 1: 025XY019NV
 Inclusion 2: 025XY018NV
 Inclusion 3: 025XY019NV
 Inclusion 4: none

1362--Midraw-Hunnton association

Composition

Major Components

Midraw silt loam, 2 to 8 percent slopes--45 percent
 Midraw cobbly loam, 8 to 15 percent slopes--25 percent
 Hunnton very fine sandy loam, 2 to 4 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Burrita very cobbly loam, moist, 15 to 30 percent slopes--7 percent
 Inclusion 2: Boger silt loam, 2 to 4 percent slopes--5 percent
 Inclusion 3: Rock outcrop--2 percent
 Inclusion 4: Kingsriver gravelly loam, drained, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Plateaus
 Midraw--Landform: Plateaus; geomorphic position: summit; position on slope: lower
 Midraw--Landform: Plateaus; geomorphic position: backslope; position on slope: upper
 Hunnton--Landform: Plateaus; geomorphic position: footslope
 Inclusion 1--Landform: Plateaus; geomorphic position: backslope; position on slope: lower; aspect: south
 Inclusion 2--Landform: Plateaus; geomorphic position: summit; position on slope: lower
 Inclusion 3--Landform: Plateaus
 Inclusion 4--Landform: Drainageways

Major Component Description

Midraw Series

Elevation: 4,800 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Midraw Series

Elevation: 4,800 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Hunnton Series

Elevation: 4,800 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Midraw: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, shadscale, spiny hopsage
 Midraw: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Hunnton: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 2: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 3: None
 Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Midraw: 023XY038NV
 Midraw: 023XY006NV
 Hunnton: 023XY006NV
 Inclusion 1: 023XY039NV
 Inclusion 2: 023XY038NV
 Inclusion 3: none
 Inclusion 4: 023XY005NV

1371--Devada-Vanwyper association**Composition****Major Components**

Devada very gravelly loam, 15 to 30 percent slopes--35 percent

Devada very gravelly loam, 4 to 15 percent slopes--30 percent

Vanwyper very cobbly loam, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Ninemile very gravelly loam, 15 to 50 percent slopes--10 percent

Inclusion 2: Alyan silt loam, 15 to 50 percent slopes--3 percent

Inclusion 3: Kingsriver loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Devada--Landform: Mountains; geomorphic position: summit

Devada--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: south

Vanwyper--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: south

Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 3--Landform: Stream terraces

Major Component Description**Devada Series**

Elevation: 5,200 to 6,000 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface rock fragments: 25 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Devada Series

Elevation: 5,200 to 6,000 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface rock fragments: 45 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Vanwyper Series

Elevation: 5,200 to 6,000 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface rock fragments: 10 percent stones and boulders; 25 percent cobbles; 20 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Devada: Bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush

Devada: Bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush

Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 1: Idaho fescue, bottlebrush squirreltail, low sagebrush

Inclusion 2: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Devada: 024XY018NV

Devada: 024XY018NV

Vanwyper: 024XY028NV

Inclusion 1: 025XY017NV

Inclusion 2: 025XY014NV

Inclusion 3: 025XY003NV

1373--Devada-Zymans association**Composition****Major Components**

Devada gravelly loam, 4 to 15 percent slopes--45 percent

Zymans gravelly loam, 2 to 8 percent slopes--25 percent

Devada extremely gravelly loam, 2 to 15 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Burrita very cobbly loam, moist, 30 to 50 percent slopes--5 percent

Inclusion 2: Trunk cobbly loam, 8 to 15 percent slopes--5 percent

- Inclusion 3: Ninemile gravelly loam, 15 to 30 percent slopes--3 percent
 Inclusion 4: Rubble land, 8 to 50 percent slopes--2 percent

Map Unit Setting

- Landscape position:* Mountains
 Devada--Landform: Mountains; geomorphic position: backslope; shape of slope: convex
 Zymans--Landform: Mountains; geomorphic position: summit; aspect: north
 Devada--Landform: Mountains; geomorphic position: footslope; aspect: south
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; shape of slope: concave
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: convex; aspect: north
 Inclusion 4--Landform: Mountains

Major Component Description

Devada Series

- Elevation:* 5,400 to 5,600 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface rock fragments: 2 percent cobbles; 25 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Zymans Series

- Elevation:* 5,400 to 5,600 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface rock fragments: 5 percent stones and boulders; 20 percent cobbles; *Surface layer texture:* Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Devada Series

- Elevation:* 5,400 to 5,600 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days

- Surface rock fragments:* 5 percent cobbles; 5 percent gravel
Surface layer texture: Extremely gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

- Devada: Sandberg bluegrass, Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Zymans: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Devada: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush
 Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass, bluegrass
 Inclusion 2: Indian ricegrass, Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush
 Inclusion 3: Idaho fescue, Sandberg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush
 Inclusion 4: None

Ecological Site

- Devada: 023XY031NV
 Zymans: 023XY020NV
 Devada: 023XY021NV
 Inclusion 1: 023XY039NV
 Inclusion 2: 023XY006NV
 Inclusion 3: 023XY017NV
 Inclusion 4: none

1380--Genaw-Soughe-Rocconda association

Composition

Major Components

- Genaw silt loam, 4 to 15 percent slopes--40 percent
 Soughe cobbly loam, 8 to 30 percent slopes--25 percent
 Rocconda cobbly silt loam, moist, 8 to 15 percent slopes--20 percent

Contrasting Inclusions

- Inclusion 1: Kortty gravelly loam, 4 to 8 percent slopes--6 percent
 Inclusion 2: Rubble land, 15 to 75 percent slopes--5 percent
 Inclusion 3: Orovada silt loam, 0 to 4 percent slopes--3 percent
 Inclusion 4: McConnel very gravelly sandy loam, 0 to 2 percent slopes, rarely flooded--1 percent

Map Unit Setting

- Landscape position:* Plateaus

Genaw--Landform: Plateaus; geomorphic position: summit; aspect: south
 Soughe--Landform: Plateaus; geomorphic position: backslope
 Rocconda--Landform: Plateaus; geomorphic position: shoulder; aspect: north
 Inclusion 1--Landform: Plateaus; geomorphic position: summit
 Inclusion 2--Landform: Plateaus
 Inclusion 3--Landform: Plateaus; geomorphic position: toeslope
 Inclusion 4--Landform: Drainageways

Major Component Description

Genaw Series

Elevation: 4,800 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface rock fragments: 2 percent cobbles; 10 percent gravel
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Residuum derived from tuffaceous rocks

Soughe Series

Elevation: 4,800 to 5,800 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Rocconda Series

Elevation: 4,800 to 5,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Cobbly silt loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Genaw: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Soughe: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Rocconda: Sandberg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail

Inclusion 1: Bottlebrush squirreltail, shadscale
 Inclusion 2: None
 Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail, bud sagebrush, spiny hopsage
 Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Genaw: 023XY038NV
 Soughe: 023XY006NV
 Rocconda: 023XY037NV
 Inclusion 1: 024XY065NV
 Inclusion 2: none
 Inclusion 3: 023XY038NV
 Inclusion 4: 023XY005NV

1381--Genaw-Trunk-Devada association

Composition

Major Components

Genaw very fine sandy loam, 2 to 8 percent slopes--35 percent
 Trunk loam, 8 to 15 percent slopes--30 percent
 Devada cobbly very fine sandy loam, 2 to 8 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Genaw gravelly silt loam, 4 to 15 percent slopes--7 percent
 Inclusion 2: Puett very gravelly loam, 30 to 50 percent slopes--4 percent
 Inclusion 3: Rock outcrop--2 percent
 Inclusion 4: Clementine loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Hills
 Genaw--Landform: Hills; geomorphic position: summit
 Trunk--Landform: Hills; geomorphic position: backslope; shape of slope: concave
 Devada--Landform: Hills; geomorphic position: backslope; position on slope: lower; shape of slope: convex
 Inclusion 1--Landform: Hills; geomorphic position: backslope; position on slope: lower; shape of slope: concave
 Inclusion 2--Landform: Hills; geomorphic position: backslope
 Inclusion 3--Landform: Hills
 Inclusion 4--Landform: Stream terraces

Major Component Description

Genaw Series

Elevation: 5,000 to 5,600 feet

Precipitation: About 9 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum derived from tuffaceous rocks

Trunk Series

Elevation: 5,000 to 5,600 feet
Precipitation: About 9 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Devada Series

Elevation: 5,000 to 5,600 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Genaw: Indian ricegrass, Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush
 Trunk: Indian ricegrass, Thurber needlegrass, Wyoming big sagebrush
 Devada: Sandberg bluegrass, Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 1: Indian ricegrass, Wyoming big sagebrush, spiny hopsage
 Inclusion 2: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: None
 Inclusion 4: Nevada bluegrass, basin big sagebrush, basin wildrye, rose, rubber rabbitbrush, willow

Ecological Site

Genaw: 023XY006NV
 Trunk: 023XY006NV
 Devada: 023XY031NV
 Inclusion 1: 023XY038NV
 Inclusion 2: 024XY045NV
 Inclusion 3: none
 Inclusion 4: 023XY009NV

1382--Genaw-Puett association

Composition

Major Components

Genaw gravelly loam, 8 to 30 percent slopes--60 percent
 Puett stony sandy loam, 30 to 50 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Panlee very fine sandy loam, 30 to 50 percent slopes--6 percent
 Inclusion 2: Davey loamy fine sand, 4 to 15 percent slopes--5 percent
 Inclusion 3: Kingsriver loam, drained, 0 to 2 percent slopes--2 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Hills
 Genaw--Landform: Hills; geomorphic position: backslope
 Puett--Landform: Hills; geomorphic position: backslope
 Inclusion 1--Landform: Hills; geomorphic position: backslope; aspect: north
 Inclusion 2--Landform: Sand sheets
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Hills

Major Component Description

Genaw Series

Elevation: 4,500 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from tuffaceous rocks

Puett Series

Elevation: 4,500 to 5,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 1 percent stones and boulders; 3 percent cobbles; 25 percent gravel
Surface layer texture: Stony sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Genaw: Indian ricegrass, Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Puett: Indian ricegrass, Wyoming big sagebrush, purple sage

Inclusion 1: Indian ricegrass, big sagebrush, needleandthread

Inclusion 2: Indian ricegrass, Wyoming big sagebrush, needleandthread

Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Inclusion 4: None

Ecological Site

Genaw: 024XY020NV

Puett: 023XY030NV

Inclusion 1: 024XY058NV

Inclusion 2: 024XY017NV

Inclusion 3: 025XY003NV

Inclusion 4: none

1390--Mulhop-Xine-Rock outcrop association***Composition*****Major Components**

Mulhop very cobbly loam, 30 to 50 percent slopes--40 percent

Xine gravelly silt loam, 30 to 50 percent slopes--30 percent

Rock outcrop--20 percent

Contrasting Inclusions

Inclusion 1: Quomus gravelly silt loam, moist, 30 to 50 percent slopes--5 percent

Inclusion 2: Cleavage extremely gravelly loam, 4 to 15 percent slopes--4 percent

Inclusion 3: Fluventic Haploxerolls, coarse-loamy, mixed, frigid very stony loam, 0 to 4 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Mulhop--Landform: Mountains; geomorphic position: backslope; aspect: north

Xine--Landform: Mountains; geomorphic position: backslope; aspect: south

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: summit

Inclusion 3--Landform: Stream terraces

Major Component Description**Mulhop Series**

Elevation: 5,400 to 7,000 feet

Precipitation: About 11 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface rock fragments: 1 percent stones and boulders; 25 percent cobbles; 25 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from limestone and dolomite

Xine Series

Elevation: 5,400 to 7,000 feet

Precipitation: About 13 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent cobbles; 25 percent gravel

Surface layer texture: Gravelly silt loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from limestone and dolomite

Rock outcrop Series

Elevation: 5,400 to 7,000 feet

Dominant Present Vegetation

Mulhop: Utah juniper, black sagebrush

Xine: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush, rabbitbrush

Rock outcrop: None

Inclusion 1: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, snowberry

Inclusion 2: Idaho fescue, bottlebrush squirreltail, low sagebrush

Inclusion 3: Basin big sagebrush, basin wildrye, rubber rabbitbrush

Ecological Site

Mulhop: 025XY060NV

Xine: 024XY021NV

Rock outcrop: None

Inclusion 1: 024XY023NV

Inclusion 2: 024XY016NV

Inclusion 3: 025XY003NV

1400--Madeline-Anawalt-Vanwyper association**Composition****Major Components**

Madeline stony loam, warm, 8 to 30 percent slopes--40 percent

Anawalt very gravelly loam, 4 to 15 percent slopes--25 percent

Vanwyper stony loam, 15 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Cleavage cobbly loam, 8 to 30 percent slopes--7 percent

Inclusion 2: Ayan cobbly loam, 8 to 30 percent slopes--5 percent

Inclusion 3: Rock outcrop--2 percent

Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Madeline--Landform: Mountains; geomorphic position: summit; shape of slope: convex

Anawalt--Landform: Mountains; geomorphic position: summit; shape of slope: convex

Vanwyper--Landform: Mountains; shape of slope: plane; aspect: south

Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Stream terraces

Major Component Description**Madeline Series**

Elevation: 5,400 to 6,400 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface rock fragments: 3 percent stones and boulders; 5 percent cobbles; 10 percent gravel

Surface layer texture: Stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Anawalt Series

Elevation: 5,400 to 6,400 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent cobbles; 45 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Vanwyper Series

Elevation: 5,400 to 6,400 feet

Precipitation: About 10 inches

Air temperature: About 45 degrees

Frost-free season: About 90 days

Surface layer texture: Stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Madeline: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush

Anawalt: Thurber needlegrass, Webber ricegrass, bluebunch wheatgrass, low sagebrush

Vanwyper: Letterman needlegrass, antelope bitterbrush, bluebunch wheatgrass

Inclusion 1: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, bluegrass, low sagebrush

Inclusion 2: Idaho fescue, antelope bitterbrush, basin wildrye, bluebunch wheatgrass

Inclusion 3: None

Inclusion 4: Nevada bluegrass, rose, sedge, tufted hairgrass, willow

Ecological Site

Madeline: 025XY007NV

Anawalt: 025XY018NV

Vanwyper: 025XY015NV

Inclusion 1: 025XY017NV

Inclusion 2: 025XY012NV

Inclusion 3: none

Inclusion 4: 025XY005NV

1410--Say-Tosp-Aycab association**Composition****Major Components**

Say stony loam, warm, 15 to 50 percent slopes--40 percent

Tosp loam, 15 to 50 percent slopes--25 percent

Aycab stony loam, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Lithic Cryoborolls, loamy-skeletal, mixed very bouldery sandy loam, 30 to 75 percent slopes--7 percent

Inclusion 2: Rock outcrop--4 percent

Inclusion 3: Aycab very stony sandy loam, 4 to 15 percent slopes--3 percent

Inclusion 4: Pachic Cryoborolls, loamy-skeletal, mixed silt loam, 30 to 50 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Say--Landform: Mountains; geomorphic position: backslope; aspect: south

Tosp--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Aycab--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: shoulder; shape of slope: convex

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Mountains; geomorphic position: summit

Inclusion 4--Landform: Mountains; geomorphic position: summit; position on slope: upper

Major Component Description**Say Series**

Elevation: 6,000 to 8,400 feet

Precipitation: About 13 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface layer texture: Stony loam

Drainage class: Well drained

Dominant parent material: Residuum derived from granitic rocks

Tosp Series

Elevation: 6,300 to 8,400 feet

Precipitation: About 18 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface rock fragments: 5 percent gravel

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from granitic rocks

Aycab Series

Elevation: 6,000 to 8,400 feet

Precipitation: About 16 inches

Air temperature: About 43 degrees

Frost-free season: About 65 days

Surface layer texture: Stony loam

Drainage class: Well drained

Dominant parent material: Residuum derived from granitic rocks

Dominant Present Vegetation

Say: Antelope bitterbrush, basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Tosp: Idaho fescue, mountain big sagebrush, mountain brome, quaking aspen

Aycab: Columbia needlegrass, Letterman needlegrass, mountain big sagebrush, mountain brome, snowberry

Inclusion 1: Idaho fescue, curlleaf mountainmahogany, mountain big sagebrush

Inclusion 2: None

Inclusion 3: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Inclusion 4: Quaking aspen, tailcup lupine

Ecological Site

Say: 025XY009NV

Tosp: 025XY065NV

Aycab: 025XY004NV

Inclusion 1: 023XY069NV

Inclusion 2: none

Inclusion 3: 025XY076NV

Inclusion 4: 025XY002NV

1411--Say-Aycab association**Composition****Major Components**

Say stony loam, 30 to 50 percent slopes--50 percent

Aycab stony loam, 30 to 50 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Lithic Cryoborolls, loamy-skeletal, mixed very bouldery loam, 30 to 50 percent slopes--5 percent

Inclusion 2: Rock outcrop--2 percent

Inclusion 3: Pachic Cryoborolls, loamy-skeletal, mixed silt loam, 15 to 30 percent slopes--2 percent

Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid loam, drained, 0 to 4 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains

Say--Landform: Mountains; geomorphic position: backslope; aspect: south
 Aycab--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: backslope
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Mountains; geomorphic position: shoulder; position on slope: upper; shape of slope: concave
 Inclusion 4--Landform: Drainageways

Major Component Description

Say Series

Elevation: 6,200 to 8,200 feet
Precipitation: About 13 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum derived from granitic rocks

Aycab Series

Elevation: 6,200 to 8,200 feet
Precipitation: About 16 inches
Air temperature: About 43 degrees
Frost-free season: About 65 days
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum derived from granitic rocks

Dominant Present Vegetation

Say: Antelope bitterbrush, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Aycab: Columbia needlegrass, Letterman needlegrass, mountain big sagebrush, mountain brome, snowberry
 Inclusion 1: Idaho fescue, antelope bitterbrush, curleaf mountainmahogany, mountain brome
 Inclusion 2: None
 Inclusion 3: Quaking aspen, tailcup lupine
 Inclusion 4: Basin big sagebrush, basin wildrye, rose, willow

Ecological Site

Say: 025XY009NV
 Aycab: 025XY004NV
 Inclusion 1: 023XY069NV
 Inclusion 2: none
 Inclusion 3: 025XY002NV
 Inclusion 4: 025XY003NV

1420--Panlee-Burrita association

Composition

Major Components

Panlee gravelly very fine sandy loam, 30 to 50 percent slopes--35 percent
 Panlee very cobbly very fine sandy loam, dry, 30 to 50 percent slopes--30 percent
 Burrita gravelly loam, 15 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Bliss fine sandy loam, 4 to 30 percent slopes--8 percent
 Inclusion 2: Davey loamy fine sand, 4 to 15 percent slopes--4 percent
 Inclusion 3: Rebel gravelly very fine sandy loam, 2 to 4 percent slopes--2 percent
 Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Mountains and intermontane basins
 Panlee--Landform: Mountains; geomorphic position: backslope; aspect: north
 Panlee--Landform: Mountains; geomorphic position: backslope; aspect: south
 Burrita--Landform: Mountains; geomorphic position: summit
 Inclusion 1--Landform: Fan remnants; position on slope: lower
 Inclusion 2--Landform: Sand sheets; geomorphic position: toeslope; position on slope: lower
 Inclusion 3--Landform: Stream terraces; position on slope: lower
 Inclusion 4--Landform: Mountains

Major Component Description

Panlee Series

Elevation: 4,600 to 6,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 5 percent cobbles; 15 percent gravel
Surface layer texture: Gravelly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Panlee Series

Elevation: 4,600 to 6,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees

Frost-free season: About 100 days
Surface layer texture: Very cobbly very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Burrita Series

Elevation: 4,600 to 6,500 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Panlee: Indian ricegrass, Thurber needlegrass, basin big sagebrush, needleandthread
 Panlee: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Burrita: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Indian ricegrass, big sagebrush, needleandthread
 Inclusion 3: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 4: None

Ecological Site

Panlee: 024XY058NV
 Panlee: 024XY020NV
 Burrita: 024XY005NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY017NV
 Inclusion 3: 024XY005NV
 Inclusion 4: none

1421--Panlee-Davey-Soughe association

Composition

Major Components

Panlee very fine sandy loam, 15 to 30 percent slopes--40 percent
 Davey loamy fine sand, 4 to 15 percent slopes--35 percent
 Soughe cobbly loam, 8 to 30 percent slopes--10 percent

Contrasting Inclusions

Inclusion 1: Panlee stony loam, dry, 30 to 50 percent slopes--9 percent
 Inclusion 2: Enko loamy fine sand, 2 to 8 percent slopes--4 percent
 Inclusion 3: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Hills and intermontane basins
 Panlee--Landform: Hills; geomorphic position: backslope
 Davey--Landform: Sand sheets
 Soughe--Landform: Hills; geomorphic position: summit
 Inclusion 1--Landform: Hills; geomorphic position: backslope; aspect: south
 Inclusion 2--Landform: Alluvial fans
 Inclusion 3--Landform: Hills

Major Component Description

Panlee Series

Elevation: 4,700 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Davey Series

Elevation: 4,700 to 5,000 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 110 days
Surface layer texture: Loamy fine sand
Drainage class: Somewhat excessively drained
Dominant parent material: Alluvium derived from mixed rocks

Soughe Series

Elevation: 4,700 to 5,000 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Panlee: Indian ricegrass, big sagebrush, needleandthread

Davey: Indian ricegrass, basin big sagebrush, needleandthread
 Soughe: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 2: Indian ricegrass, basin big sagebrush, needleandthread
 Inclusion 3: None

Ecological Site

Panlee: 024XY058NV
 Davey: 024XY017NV
 Soughe: 024XY005NV
 Inclusion 1: 024XY020NV
 Inclusion 2: 024XY017NV
 Inclusion 3: none

1423--Panlee-Vanwyper-Carstump association

Composition

Major Components

Panlee very fine sandy loam, 15 to 30 percent slopes--40 percent
 Vanwyper very cobbly loam, 15 to 50 percent slopes--30 percent
 Carstump very fine sandy loam, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Burrita cobbly loam, 15 to 30 percent slopes--5 percent
 Inclusion 2: Connel very fine sandy loam, 2 to 8 percent slopes, rarely flooded--3 percent
 Inclusion 3: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains
 Panlee--Landform: Mountains; geomorphic position: backslope; position on slope: lower
 Vanwyper--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: south
 Carstump--Landform: Mountains; geomorphic position: backslope; position on slope: upper; aspect: north
 Inclusion 1--Landform: Mountains; geomorphic position: shoulder
 Inclusion 2--Landform: Stream terraces
 Inclusion 3--Landform: Mountains

Major Component Description

Panlee Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Vanwyper Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Carstump Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Panlee: Wyoming big sagebrush, basin wildrye, needleandthread
 Vanwyper: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Carstump: Thurber needlegrass, basin big sagebrush, bluebunch wheatgrass
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Sandberg bluegrass, Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 3: None

Ecological Site

Panlee: 024XY058NV
 Vanwyper: 024XY028NV
 Carstump: 025XY014NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY005NV
 Inclusion 3: none

1431--Rodock-Hunnton association***Composition*****Major Components**

Rodock gravelly sandy loam, 2 to 8 percent slopes--45 percent

Hunnton gravelly loam, 2 to 8 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: Lunder extremely cobbly loam, 2 to 8 percent slopes--4 percent

Inclusion 2: Rio King loam, 0 to 4 percent slopes--4 percent

Inclusion 3: Cumulic Endoaquolls, loamy-skeletal, mixed, mesic stony loam, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Rodock--Landform: Fan aprons

Hunnton--Landform: Fan remnants

Inclusion 1--Landform: Fan remnants; position on slope: upper

Inclusion 2--Landform: Inset fans; position on slope: lower

Inclusion 3--Landform: Drainageways

Major Component Description**Rodock Series**

Elevation: 4,300 to 5,000 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Gravelly sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Hunnton Series

Elevation: 4,300 to 5,000 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Rodock: Basin wildrye, big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail

Hunnton: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush

Inclusion 2: Basin big sagebrush, basin wildrye

Inclusion 3: Rose, rush, sedge

Ecological Site

Rodock: 024XY013NV

Hunnton: 024XY005NV

Inclusion 1: 023XY060NV

Inclusion 2: 023XY009NV

Inclusion 3: 023XY025NV

1432--Rodock-Connel complex, 0 to 2 percent slopes***Composition*****Major Components**

Rodock loam, 0 to 2 percent slopes--50 percent

Connel very fine sandy loam, 0 to 2 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Kingsriver loam, drained, 0 to 2 percent slopes--5 percent

Inclusion 2: McConnel loam, 0 to 2 percent slopes, occasionally flooded--5 percent

Inclusion 3: Valmy fine sandy loam, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Rodock--Landform: Inset fans

Connel--Landform: Fan remnants

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Drainageways; position on slope: lower

Inclusion 3--Landform: Fan skirts; position on slope: lower

Major Component Description**Rodock Series**

Elevation: 4,200 to 4,500 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Connel Series

Elevation: 4,200 to 4,500 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 100 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Rodock: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Connel: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 1: Basin big sagebrush, basin wildrye
 Inclusion 2: Big sagebrush, rubber rabbitbrush
 Inclusion 3: Big sagebrush, black greasewood, bottlebrush squirreltail

Ecological Site

Rodock: 024XY013NV
 Connel: 024XY005NV
 Inclusion 1: 025XY003NV
 Inclusion 2: 024XY006NV
 Inclusion 3: 024XY022NV

1433--Rodock gravelly sandy loam, 0 to 2 percent slopes

Composition

Major Components

Rodock gravelly sandy loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Orovida loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Rio King loam, slightly saline, 0 to 2 percent slopes--5 percent
 Inclusion 3: Rodock gravelly sandy loam, moist, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Rodock--Landform: Inset fans
 Inclusion 1--Landform: Fan skirts; position on slope: lower
 Inclusion 2--Landform: Stream terraces; position on slope: lower
 Inclusion 3--Landform: Drainageways; position on slope: upper

Major Component Description

Rodock Series

Elevation: 4,200 to 4,600 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees

Frost-free season: About 100 days
Surface layer texture: Gravelly sandy loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Rodock: Basin wildrye, big sagebrush, bluebunch wheatgrass, bottlebrush squirreltail
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Rodock: 024XY013NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 024XY006NV
 Inclusion 3: 025XY003NV

1436--Rodock loam, 0 to 2 percent slopes

Composition

Major Components

Rodock loam, moist, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Connel very fine sandy loam, 0 to 2 percent slopes--5 percent
 Inclusion 2: Kingsriver loam, drained, 0 to 2 percent slopes--3 percent
 Inclusion 3: Rose Creek loam, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Rodock--Landform: Stream terraces
 Inclusion 1--Landform: Fan remnants; position on slope: upper
 Inclusion 2--Landform: Stream terraces
 Inclusion 3--Landform: Flood plains

Major Component Description

Rodock Series

Elevation: 4,200 to 4,600 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 100 days
Surface layer texture: Loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Rodock: Basin big sagebrush, basin wildrye, rubber rabbitbrush
 Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail
 Inclusion 2: Basin big sagebrush, basin wildrye, rubber rabbitbrush
 Inclusion 3: Basin big sagebrush, basin wildrye, willow

Ecological Site

Rodock: 025XY003NV
 Inclusion 1: 024XY005NV
 Inclusion 2: 025XY003NV
 Inclusion 3: 025XY001NV

1437--Rodock very fine sandy loam, slightly saline, 0 to 2 percent slopes

Composition**Major Components**

Rodock very fine sandy loam, slightly saline, 0 to 2 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Clementine silt loam, drained, 0 to 2 percent slopes--5 percent
 Inclusion 2: McConnel very gravelly fine sandy loam, 0 to 2 percent slopes--3 percent
 Inclusion 3: Clementine silt loam, slightly saline, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Rodock--Landform: Inset fans

Inclusion 1--Landform: Inset fans; position on slope: lower

Inclusion 2--Landform: Fan skirts; position on slope: upper

Inclusion 3--Landform: Flood plains; position on slope: lower

Major Component Description**Rodock Series**

Elevation: 4,100 to 4,200 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 100 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Rodock: Basin big sagebrush, basin wildrye, black greasewood
 Inclusion 1: Basin big sagebrush, basin wildrye, rubber rabbitbrush
 Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage
 Inclusion 3: Basin big sagebrush, basin wildrye, creeping wildrye, willow

Ecological Site

Rodock: 024XY006NV
 Inclusion 1: 025XY003NV
 Inclusion 2: 024XY020NV
 Inclusion 3: 025XY001NV

1450--Wiskan-Climine association

Composition**Major Components**

Wiskan very gravelly loam, 30 to 50 percent slopes--50 percent

Climine very fine sandy loam, 30 to 50 percent slopes--35 percent

Contrasting Inclusions

Inclusion 1: Bregar extremely gravelly loam, 15 to 50 percent slopes--8 percent

Inclusion 2: Gowjai gravelly loam, cool, 30 to 50 percent slopes--7 percent

Map Unit Setting

Landscape position: Mountains

Wiskan--Landform: Mountains; geomorphic position: backslope; aspect: south

Climine--Landform: Mountains; geomorphic position: backslope; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: summit

Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: lower; aspect: north

Major Component Description**Wiskan Series**

Elevation: 5,800 to 7,000 feet

Precipitation: About 12 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 1 percent cobbles; 35 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Climine Series

Elevation: 5,800 to 7,000 feet
Precipitation: About 12 inches
Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface layer texture: Very fine sandy loam
Drainage class: Well drained
Dominant parent material: Colluvium derived from mixed rocks

Dominant Present Vegetation

Wiskan: Idaho fescue, Thurber needlegrass, black sagebrush
 Climine: Idaho fescue, bluebunch wheatgrass, bluegrass, threetip sagebrush
 Inclusion 1: Idaho fescue, black sagebrush, low sagebrush
 Inclusion 2: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Ecological Site

Wiskan: 024XY031NV
 Climine: 024XY046NV
 Inclusion 1: 024XY016NV
 Inclusion 2: 024XY021NV

1460--Ninemile-Reluctan-Anawalt association

Composition

Major Components

Ninemile cobbly loam, 4 to 15 percent slopes--35 percent
 Reluctan gravelly loam, moist, 4 to 15 percent slopes--25 percent
 Anawalt very gravelly loam, 4 to 15 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Anawalt very cobbly loam, 4 to 8 percent slopes--7 percent
 Inclusion 2: Sumine cobbly loam, 15 to 50 percent slopes--3 percent
 Inclusion 3: Tusk loam, 15 to 30 percent slopes--3 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Plateaus

Ninemile--Landform: Plateaus; geomorphic position: backslope; shape of slope: convex; aspect: north
 Reluctan--Landform: Plateaus; geomorphic position: summit
 Anawalt--Landform: Plateaus; geomorphic position: backslope; shape of slope: convex; aspect: south
 Inclusion 1--Landform: Plateaus; geomorphic position: backslope; aspect: south
 Inclusion 2--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: south
 Inclusion 3--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 4--Landform: Plateaus

Major Component Description

Ninemile Series

Elevation: 5,900 to 6,500 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Reluctan Series

Elevation: 5,900 to 6,500 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Anawalt Series

Elevation: 5,900 to 6,500 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 2 percent stones and boulders; 5 percent cobbles; 35 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush

Reluctan: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, bluegrass, currant, mountain big sagebrush
 Anawalt: Bluebunch wheatgrass, bluegrass, bottlebrush squirreltail, low sagebrush
 Inclusion 1: Sandberg bluegrass, low sagebrush
 Inclusion 2: Sandberg bluegrass, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 3: Idaho fescue, bluebunch wheatgrass, bluegrass, mountain big sagebrush, needlegrass, snowberry
 Inclusion 4: None

Ecological Site

Ninemile: 023XY017NV
 Reluctan: 023XY066NV
 Anawalt: 023XY031NV
 Inclusion 1: 023XY021NV
 Inclusion 2: 023XY016NV
 Inclusion 3: 023XY007NV
 Inclusion 4: none

1461--Ninemile-Tusel-Alyan association, cool

Composition

Major Components

Ninemile very gravelly loam, 4 to 15 percent slopes--35 percent
 Tusel gravelly loam, 15 to 30 percent slopes--30 percent
 Alyan gravelly loam, moist, 4 to 15 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Golsum cobbly loam, 30 to 50 percent slopes--6 percent
 Inclusion 2: Anawalt very cobbly loam, 4 to 8 percent slopes--5 percent
 Inclusion 3: Rock outcrop--3 percent
 Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, frigid loam, 2 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Plateaus

Ninemile--Landform: Plateaus; geomorphic position: backslope; shape of slope: convex

Tusel--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: north

Alyan--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave; aspect: south

Inclusion 1--Landform: Plateaus; geomorphic position: backslope; aspect: south
 Inclusion 2--Landform: Plateaus; geomorphic position: summit
 Inclusion 3--Landform: Plateaus
 Inclusion 4--Landform: Stream terraces

Major Component Description

Ninemile Series

Elevation: 6,200 to 6,900 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface rock fragments: 40 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Tusel Series

Elevation: 6,200 to 6,900 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Alyan Series

Elevation: 6,200 to 6,900 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface rock fragments: 25 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, bluegrass, bottlebrush squirreltail, low sagebrush
 Tusel: Idaho fescue, bluegrass, mountain big sagebrush, mountain brome, needlegrass, snowberry
 Alyan: Idaho fescue, bluebunch wheatgrass, bluegrass, mountain big sagebrush
 Inclusion 1: Sandberg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, mountain big sagebrush
 Inclusion 2: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush

Inclusion 3: None

Inclusion 4: Bluegrass, rush, sedge, tufted hairgrass

Ecological Site

Ninemile: 023XY017NV

Tusel: 023XY065NV

Alyan: 023XY007NV

Inclusion 1: 023XY016NV

Inclusion 2: 023XY021NV

Inclusion 3: none

Inclusion 4: 023XY025NV

1462--Ninemile-Anawalt association

Composition

Major Components

Ninemile gravelly loam, 4 to 15 percent slopes--35 percent

Anawalt very gravelly loam, 4 to 15 percent slopes--30 percent

Anawalt very gravelly loam, 8 to 30 percent slopes, eroded--20 percent

Contrasting Inclusions

Inclusion 1: Siscab stony loam, 50 to 75 percent slopes--5 percent

Inclusion 2: Bullump cobbly loam, cool, 50 to 75 percent slopes--5 percent

Inclusion 3: Rock outcrop--4 percent

Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, frigid loam, drained, 0 to 4 percent slopes--1 percent

Map Unit Setting

Landscape position: Plateaus

Ninemile--Landform: Plateaus; geomorphic position: summit; aspect: north

Anawalt--Landform: Plateaus; geomorphic position: backslope; aspect: south

Anawalt--Landform: Plateaus; geomorphic position: backslope; position on slope: upper

Inclusion 1--Landform: Plateaus; geomorphic position: backslope; aspect: south

Inclusion 2--Landform: Plateaus; geomorphic position: backslope; aspect: north

Inclusion 3--Landform: Plateaus

Inclusion 4--Landform: Stream terraces

Major Component Description

Ninemile Series

Elevation: 5,800 to 6,400 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Anawalt Series

Elevation: 5,800 to 6,400 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent cobbles; 45 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Anawalt Series

Elevation: 5,800 to 6,400 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush

Anawalt: Thurber needlegrass, bluebunch wheatgrass, bluegrass, low sagebrush

Anawalt: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush

Inclusion 1: Sandberg bluegrass, bluebunch wheatgrass, bottlebrush squirreltail, mountain big sagebrush

Inclusion 2: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, currant, mountain big sagebrush, snowberry

Inclusion 3: None

Inclusion 4: Nevada bluegrass, basin big sagebrush, basin wildrye, rose, rubber rabbitbrush, willow

Ecological Site

Ninemile: 023XY017NV

Anawalt: 023XY031NV

Anawalt: 023XY021NV

Inclusion 1: 023XY042NV

Inclusion 2: 023XY019NV

Inclusion 3: none

Inclusion 4: 023XY009NV

1464--Ninemile-Anawalt-Sumine association**Composition****Major Components**

Ninemile very gravelly loam, 8 to 30 percent slopes--30 percent

Anawalt very gravelly loam, 8 to 30 percent slopes--30 percent

Sumine very stony loam, 15 to 50 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Harcany stony loam, 15 to 50 percent slopes--6 percent

Inclusion 2: Menbo very stony loam, 15 to 50 percent slopes--4 percent

Inclusion 3: Cumulic Endoaquolls, fine-silty, mixed, frigid stony loam, 4 to 15 percent slopes--3 percent

Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains

Ninemile--Landform: Mountains; geomorphic position: summit; aspect: north

Anawalt--Landform: Mountains; geomorphic position: summit; aspect: south

Sumine--Landform: Mountains; geomorphic position: backslope; aspect: south

Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: convex; aspect: north

Inclusion 3--Landform: Stream terraces

Inclusion 4--Landform: Mountains

Major Component Description**Ninemile Series**

Elevation: 5,700 to 7,600 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface rock fragments: 40 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Anawalt Series

Elevation: 5,600 to 7,600 feet

Precipitation: About 11 inches

Air temperature: About 44 degrees

Frost-free season: About 80 days

Surface rock fragments: 2 percent stones and boulders; 5 percent cobbles; 35 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Sumine Series

Elevation: 5,600 to 7,600 feet

Precipitation: About 12 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent stones and boulders; 10 percent cobbles; 15 percent gravel

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush

Anawalt: Thurber needlegrass, bluebunch wheatgrass, low sagebrush

Sumine: Thurber needlegrass, basin wildrye, bluebunch wheatgrass, mountain big sagebrush

Inclusion 1: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Inclusion 2: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Inclusion 3: Bluegrass, sedge, tufted hairgrass

Inclusion 4: None

Ecological Site

Ninemile: 023XY017NV

Anawalt: 023XY031NV

Sumine: 023XY016NV

Inclusion 1: 023XY065NV

Inclusion 2: 023XY007NV

Inclusion 3: 023XY025NV

Inclusion 4: none

1465--Ninemile-Cleavage-Tusel association**Composition****Major Components**

Ninemile very gravelly loam, 30 to 50 percent slopes--35 percent

Cleavage very cobbly loam, 50 to 75 percent slopes--35 percent

Tusel gravelly loam, 30 to 50 percent slopes--15 percent

Contrasting Inclusions

- Inclusion 1: Rubble land--7 percent
 Inclusion 2: Sumine very cobbly loam, 30 to 50 percent slopes--5 percent
 Inclusion 3: Hackwood silt loam, 15 to 30 percent slopes--2 percent
 Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, frigid loam, drained, 0 to 4 percent slopes--1 percent

Map Unit Setting

- Landscape position:** Mountains
 Ninemile--Landform: Mountains; geomorphic position: backslope; shape of slope: convex
 Cleavage--Landform: Mountains; geomorphic position: backslope; shape of slope: convex
 Tusel--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 1--Landform: Mountains
 Inclusion 2--Landform: Mountains; shape of slope: concave; aspect: south
 Inclusion 3--Landform: Mountains; position on slope: upper; shape of slope: concave; aspect: north
 Inclusion 4--Landform: Drainageways

Major Component Description**Ninemile Series**

- Elevation:** 6,000 to 7,500 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface rock fragments: 40 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Cleavage Series

- Elevation:** 6,000 to 7,500 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface rock fragments: 3 percent stones and boulders; 15 percent cobbles; 25 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Tusel Series

- Elevation:** 6,000 to 7,500 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees

- Frost-free season:** About 50 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

- Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Cleavage: Idaho fescue, bluegrass, low sagebrush
 Tusel: Idaho fescue, mountain big sagebrush, mountain brome, slender wheatgrass, snowberry
 Inclusion 1: None
 Inclusion 2: Thurber needlegrass, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 3: Groundsel, mountain brome, quaking aspen, slender wheatgrass, snowberry
 Inclusion 4: Nevada bluegrass, basin big sagebrush, basin wildrye, streambank wheatgrass

Ecological Site

- Ninemile: 025XY017NV
 Cleavage: 025XY024NV
 Tusel: 025XY004NV
 Inclusion 1: none
 Inclusion 2: 025XY009NV
 Inclusion 3: 025XY065NV
 Inclusion 4: 025XY003NV

1466--Ninemile-Bullump-Tusel association**Composition****Major Components**

- Ninemile cobbly loam, 8 to 30 percent slopes--40 percent
 Bullump cobbly loam, 15 to 30 percent slopes--25 percent
 Tusel gravelly loam, dry, 15 to 30 percent slopes--20 percent

Contrasting Inclusions

- Inclusion 1: Cleavage very cobbly loam, 15 to 50 percent slopes--5 percent
 Inclusion 2: Hackwood silt loam, 15 to 30 percent slopes--5 percent
 Inclusion 3: Rock outcrop--3 percent
 Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, drained, 2 to 8 percent slopes--2 percent

Map Unit Setting

- Landscape position:** Mountains
 Ninemile--Landform: Mountains; geomorphic position: summit; shape of slope: convex

Bullump--Landform: Mountains; geomorphic position:

backslope; shape of slope: plane; aspect: south

Tusel--Landform: Mountains; geomorphic position:

backslope; shape of slope: plane; aspect: north

Inclusion 1--Landform: Mountains; geomorphic

position: summit

Inclusion 2--Landform: Mountains; shape of slope:

concave; aspect: north

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Drainageways

Major Component Description

Ninemile Series

Elevation: 6,500 to 7,500 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 90 days

Surface rock fragments: 25 percent gravel

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Bullump Series

Elevation: 6,500 to 7,500 feet

Precipitation: About 16 inches

Air temperature: About 43 degrees

Frost-free season: About 70 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Tusel Series

Elevation: 6,500 to 7,500 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush

Bullump: Idaho fescue, basin wildrye, bluebunch wheatgrass, mountain big sagebrush, mountain brome

Tusel: Idaho fescue, mountain big sagebrush, mountain brome, slender wheatgrass, snowberry

Inclusion 1: Idaho fescue, bluegrass, low sagebrush

Inclusion 2: Groundsel, mountain brome, quaking aspen, slender wheatgrass, snowberry

Inclusion 3: None

Inclusion 4: Nevada bluegrass, alpine timothy, basin wildrye, mat muhly, meadow barley, sedge

Ecological Site

Ninemile: 025XY017NV

Bullump: 025XY016NV

Tusel: 025XY004NV

Inclusion 1: 025XY024NV

Inclusion 2: 025XY065NV

Inclusion 3: none

Inclusion 4: 025XY006NV

1467--Ninemile-Udelope-Tusel association

Composition

Major Components

Ninemile very cobbly loam, 15 to 50 percent slopes--40 percent

Udelope bouldery sandy loam, 15 to 50 percent slopes--30 percent

Tusel gravelly loam, dry, 15 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Pachic Cryoborolls, loamy-skeletal, mixed loam, 8 to 15 percent slopes--5 percent

Inclusion 2: Hackwood silt loam, 15 to 30 percent slopes--3 percent

Inclusion 3: Rock outcrop--2 percent

Inclusion 4: Bregar very gravelly loam, dry, 2 to 8 percent slopes--5 percent

Map Unit Setting

Landscape position: Mountains

Ninemile--Landform: Mountains; geomorphic position: backslope; shape of slope: convex

Udelope--Landform: Mountains; geomorphic position: backslope; shape of slope: convex

Tusel--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave

Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: concave

Inclusion 3--Landform: Mountains

Inclusion 4--Landform: Mountains; geomorphic position: summit

Major Component Description

Ninemile Series

Elevation: 6,000 to 7,800 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Udelope Series

Elevation: 6,000 to 7,800 feet
Precipitation: About 18 inches
Air temperature: About 43 degrees
Frost-free season: About 70 days
Surface rock fragments: 1 percent stones and boulders; 5 percent cobbles; *Surface layer texture:* Bouldery sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Tusel Series

Elevation: 6,000 to 7,800 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush
 Udelope: Idaho fescue, bluebunch wheatgrass, curlleaf mountainmahogany, mountain big sagebrush, needlegrass
 Tusel: Idaho fescue, mountain big sagebrush, mountain brome, slender wheatgrass, snowberry
 Inclusion 1: Black sagebrush, curlleaf mountainmahogany
 Inclusion 2: Groundsel, mountain brome, quaking aspen, slender wheatgrass, snowberry
 Inclusion 3: None
 Inclusion 4: Idaho fescue, bluegrass, low sagebrush

Ecological Site

Ninemile: 025XY017NV
 Udelope: 025XY071NV
 Tusel: 025XY004NV
 Inclusion 1: 025XY030NV
 Inclusion 2: 025XY065NV
 Inclusion 3: none
 Inclusion 4: 025XY024NV

1468--Ninemile-Softscrabble association

Composition

Major Components

Ninemile very cobbly loam, 4 to 15 percent slopes--35 percent
 Softscrabble gravelly loam, 8 to 30 percent slopes--30 percent
 Ninemile stony loam, 15 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Bregar extremely stony loam, 2 to 8 percent slopes--5 percent
 Inclusion 2: Udelope bouldery sandy loam, 8 to 30 percent slopes--5 percent
 Inclusion 3: Hackwood gravelly silt loam, 15 to 30 percent slopes--3 percent
 Inclusion 4: Cumulic Endoaquolls, fine-silty, mixed, frigid silt loam, drained, 2 to 8 percent slopes--2 percent

Map Unit Setting

Landscape position: Plateaus and mountains
 Ninemile--Landform: Plateaus; geomorphic position: summit
 Softscrabble--Landform: Plateaus; geomorphic position: backslope; shape of slope: concave
 Ninemile--Landform: Plateaus; geomorphic position: backslope; shape of slope: convex
 Inclusion 1--Landform: Mountains; geomorphic position: summit
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Mountains; geomorphic position: shoulder; position on slope: upper; shape of slope: concave
 Inclusion 4--Landform: Drainageways

Major Component Description

Ninemile Series

Elevation: 6,200 to 7,200 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Softscrabble Series

Elevation: 6,200 to 7,200 feet
Precipitation: About 14 inches
Air temperature: About 42 degrees
Frost-free season: About 60 days

Surface rock fragments: 15 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Ninemile Series

Elevation: 6,200 to 7,200 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface rock fragments: 2 percent stones and boulders; 10 percent cobbles; 10 percent gravel
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, bluegrass, low sagebrush
 Softscrabble: Idaho fescue, basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Ninemile: Idaho fescue, bluebunch wheatgrass, bluegrass, low sagebrush
 Inclusion 1: Idaho fescue, bluegrass, low sagebrush
 Inclusion 2: Idaho fescue, bluebunch wheatgrass, curleaf mountainmahogany, mountain big sagebrush, needlegrass
 Inclusion 3: Groundsel, mountain brome, quaking aspen, slender wheatgrass, snowberry
 Inclusion 4: Nevada bluegrass, alpine timothy, basin wildrye, mat muhly, meadow barley, sedge

Ecological Site

Ninemile: 025XY017NV
 Softscrabble: 025XY012NV
 Ninemile: 025XY017NV
 Inclusion 1: 025XY024NV
 Inclusion 2: 025XY071NV
 Inclusion 3: 025XY065NV
 Inclusion 4: 025XY006NV

1469--Ninemile-Softscrabble-Sumine association

Composition

Major Components

Ninemile very cobbly loam, 15 to 50 percent slopes--40 percent
 Softscrabble gravelly loam, 15 to 50 percent slopes--30 percent

Sumine very cobbly loam, 30 to 50 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Udelope stony loam, warm, 8 to 30 percent slopes--5 percent
 Inclusion 2: Tusel cobbly loam, 15 to 30 percent slopes--5 percent
 Inclusion 3: Hackwood silt loam, 30 to 50 percent slopes--3 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains
 Ninemile--Landform: Mountains; geomorphic position: summit
 Softscrabble--Landform: Mountains; geomorphic position: backslope; shape of slope: plane
 Sumine--Landform: Mountains; geomorphic position: backslope; aspect: south
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: convex
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; aspect: north
 Inclusion 4--Landform: Mountains

Major Component Description

Ninemile Series

Elevation: 6,300 to 7,500 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Softscrabble Series

Elevation: 6,300 to 7,500 feet
Precipitation: About 14 inches
Air temperature: About 42 degrees
Frost-free season: About 60 days
Surface rock fragments: 15 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Sumine Series

Elevation: 6,300 to 7,500 feet
Precipitation: About 12 inches

Air temperature: About 42 degrees
Frost-free season: About 80 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Softscrabble: Idaho fescue, antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush
 Sumine: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 1: Idaho fescue, bluebunch wheatgrass, curlleaf mountainmahogany, mountain big sagebrush
 Inclusion 2: Columbia needlegrass, Letterman needlegrass, mountain big sagebrush, mountain brome, snowberry
 Inclusion 3: Big sagebrush, mountain brome, quaking aspen
 Inclusion 4: None

Ecological Site

Ninemile: 025XY017NV
 Softscrabble: 025XY012NV
 Sumine: 025XY009NV
 Inclusion 1: 025XY071NV
 Inclusion 2: 025XY004NV
 Inclusion 3: 025XY065NV
 Inclusion 4: none

1470--Zymans-Burrita-Devada association

Composition

Major Components

Zymans very cobbly loam, 15 to 30 percent slopes--35 percent
 Burrita gravelly loam, 15 to 50 percent slopes--30 percent
 Devada extremely gravelly loam, 4 to 30 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--5 percent
 Inclusion 2: Devada very cobbly loam, 4 to 30 percent slopes--5 percent
 Inclusion 3: Zevadez loam, moist, 4 to 8 percent slopes--4 percent
 Inclusion 4: Rodock loam, 0 to 4 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains and foothills
 Zymans--Landform: Hills; geomorphic position: backslope; aspect: north
 Burrita--Landform: Hills; geomorphic position: backslope; aspect: south
 Devada--Landform: Hills; geomorphic position: summit
 Inclusion 1--Landform: Mountains
 Inclusion 2--Landform: Mountains; geomorphic position: summit; position on slope: lower
 Inclusion 3--Landform: Hills; geomorphic position: footslope
 Inclusion 4--Landform: Drainageways

Major Component Description

Zymans Series

Elevation: 4,800 to 5,400 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Burrita Series

Elevation: 4,800 to 5,400 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Devada Series

Elevation: 4,800 to 5,400 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface layer texture: Extremely gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Zymans: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Devada: Sandberg bluegrass, bottlebrush squirreltail,

low sagebrush
 Inclusion 1: None
 Inclusion 2: Thurber needlegrass, bluebunch wheatgrass, low sagebrush
 Inclusion 3: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 4: Basin big sagebrush, basin wildrye

Ecological Site

Zymans: 023XY020NV
 Burrita: 024XY005NV
 Devada: 023XY021NV
 Inclusion 1: none
 Inclusion 2: 025XY022NV
 Inclusion 3: 023XY020NV
 Inclusion 4: 024XY006NV

1471--Zymans-Burrita-Soughe association

Composition

Major Components

Zymans gravelly loam, 30 to 50 percent slopes--40 percent
 Burrita extremely cobbly loam, warm, 30 to 50 percent slopes--30 percent
 Soughe very gravelly loam, 8 to 30 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--7 percent
 Inclusion 2: Quomus loam, 50 to 75 percent slopes--5 percent
 Inclusion 3: Devada very gravelly loam, 8 to 30 percent slopes--2 percent
 Inclusion 4: Genaw very fine sandy loam, dry, 4 to 8 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains and intermontane basins
 Zymans--Landform: Mountains; geomorphic position: backslope; aspect: north
 Burrita--Landform: Mountains; geomorphic position: backslope; aspect: south
 Soughe--Landform: Mountains; geomorphic position: summit
 Inclusion 1--Landform: Mountains
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 3--Landform: Mountains; geomorphic position: shoulder; position on slope: upper
 Inclusion 4--Landform: Pediments; position on slope: lower

Major Component Description

Zymans Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 47 degrees
Frost-free season: About 90 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Burrita Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 100 days
Surface rock fragments: 2 percent stones and boulders; 25 percent cobbles; 45 percent gravel
Surface layer texture: Extremely cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Soughe Series

Elevation: 5,000 to 6,000 feet
Precipitation: About 10 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Zymans: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Soughe: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush
 Inclusion 1: None
 Inclusion 2: Idaho fescue, Thurber needlegrass, basin big sagebrush, bluebunch wheatgrass
 Inclusion 3: Sandberg bluegrass, Thurber needlegrass, low sagebrush
 Inclusion 4: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Zymans: 023XY020NV
 Burrita: 024XY035NV
 Soughe: 024XY005NV
 Inclusion 1: none
 Inclusion 2: 024XY013NV

Inclusion 3: 025XY018NV

Inclusion 4: 024XY020NV

1472--Zymans-Burrita association

Composition

Major Components

Zymans gravelly loam, 15 to 50 percent slopes--45 percent

Zymans cobbly loam, 8 to 15 percent slopes--25 percent

Burrita very cobbly loam, moist, 30 to 50 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Burrita cobbly loam, 15 to 30 percent slopes--5 percent

Inclusion 2: Rock outcrop--3 percent

Inclusion 3: Xipe gravelly loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Zymans--Landform: Mountains; geomorphic position: backslope; aspect: north

Zymans--Landform: Mountains; geomorphic position: summit

Burrita--Landform: Mountains; geomorphic position: backslope; aspect: south

Inclusion 1--Landform: Mountains; geomorphic position: backslope; position on slope: lower

Inclusion 2--Landform: Mountains

Inclusion 3--Landform: Drainageways

Major Component Description

Zymans Series

Elevation: 5,400 to 5,800 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Zymans Series

Elevation: 5,400 to 5,800 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface layer texture: Cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Burrita Series

Elevation: 5,400 to 5,800 feet

Precipitation: About 9 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface rock fragments: 1 percent stones and boulders; 15 percent cobbles; 20 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Zymans: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Zymans: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Burrita: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 1: Sandberg bluegrass, Thurber needlegrass, Wyoming big sagebrush

Inclusion 2: None

Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Zymans: 023XY020NV

Zymans: 023XY020NV

Burrita: 023XY039NV

Inclusion 1: 024XY005NV

Inclusion 2: none

Inclusion 3: 023XY009NV

1473--Zymans-Genaw association

Composition

Major Components

Zymans gravelly loam, 4 to 15 percent slopes--55 percent

Genaw loam, moist, 2 to 4 percent slopes--30 percent

Contrasting Inclusions

Inclusion 1: Burrita cobbly loam, warm, 8 to 15 percent slopes--5 percent

Inclusion 2: Genaw fine sandy loam, 15 to 30 percent slopes--3 percent

Inclusion 3: Zevadez loam, moist, 2 to 4 percent slopes--5 percent

Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Plateaus

Zymans--Landform: Plateaus; geomorphic position: backslope

Genaw--Landform: Plateaus; geomorphic position: summit

Inclusion 1--Landform: Plateaus; geomorphic position: shoulder; aspect: south

Inclusion 2--Landform: Plateaus; geomorphic position: backslope

Inclusion 3--Landform: Plateaus; geomorphic position: summit; position on slope: lower

Inclusion 4--Landform: Plateaus

Major Component Description

Zymans Series

Elevation: 5,000 to 5,400 feet

Precipitation: About 10 inches

Air temperature: About 47 degrees

Frost-free season: About 90 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Genaw Series

Elevation: 5,000 to 5,400 feet

Precipitation: About 9 inches

Air temperature: About 46 degrees

Frost-free season: About 90 days

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Residuum derived from tuffaceous rocks

Dominant Present Vegetation

Zymans: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Genaw: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 3: Thurber needlegrass, big sagebrush, bluebunch wheatgrass

Inclusion 4: None

Ecological Site

Zymans: 024XY013NV

Genaw: 024XY013NV

Inclusion 1: 024XY035NV

Inclusion 2: 024XY045NV

Inclusion 3: 024XY013NV

Inclusion 4: none

1480--Tusel-Rock outcrop complex, 30 to 50 percent slopes

Composition

Major Components

Tusel very gravelly loam, 30 to 50 percent slopes--75 percent

Rock outcrop--10 percent

Contrasting Inclusions

Inclusion 1: Bullump very stony loam, 15 to 50 percent slopes--8 percent

Inclusion 2: Cleavage very cobbly loam, 15 to 50 percent slopes--7 percent

Map Unit Setting

Landscape position: Mountains

Tusel--Landform: Mountains; geomorphic position: backslope; aspect: north

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; geomorphic position: backslope; aspect: south

Inclusion 2--Landform: Mountains; geomorphic position: shoulder

Major Component Description

Tusel Series

Elevation: 6,400 to 7,200 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Rock outcrop Miscellaneous Area

Elevation: 6,400 to 7,200 feet

Dominant Present Vegetation

Tusel: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Rock outcrop: None

Inclusion 1: Bluebunch wheatgrass, mountain big sagebrush, mountain brome, snowberry

Inclusion 2: Idaho fescue, low sagebrush

Ecological Site

Tusel: 023XY065NV

Rock outcrop: None

Inclusion 1: 023XY064NV

Inclusion 2: 023XY008NV

1481--Tusel-Cleavage complex, 30 to 50 percent slopes***Composition*****Major Components**

Tusel very gravelly loam, 30 to 50 percent slopes--45 percent

Cleavage very cobbly loam, 30 to 50 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: Bullump very stony loam, 30 to 50 percent slopes--8 percent

Inclusion 2: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains

Tusel--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north

Cleavage--Landform: Mountains; geomorphic position: shoulder

Inclusion 1--Landform: Mountains; geomorphic position: backslope; aspect: south

Inclusion 2--Landform: Mountains

Major Component Description**Tusel Series**

Elevation: 6,700 to 7,800 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Cleavage Series

Elevation: 6,700 to 7,800 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 3 percent stones and boulders; 15 percent cobbles; 25 percent gravel

Surface layer texture: Very cobbly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Tusel: Mountain big sagebrush, mountain brome, needlegrass, snowberry

Cleavage: Idaho fescue, bluegrass, low sagebrush

Inclusion 1: Bluebunch wheatgrass, mountain big sagebrush, mountain brome, snowberry

Inclusion 2: None

Ecological Site

Tusel: 023XY065NV

Cleavage: 023XY008NV

Inclusion 1: 023XY064NV

Inclusion 2: none

1482--Tusel-Layview association***Composition*****Major Components**

Tusel gravelly loam, dry, 30 to 50 percent slopes--45 percent

Layview very gravelly loam, dry, 30 to 50 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Croesus cobbly loam, moist, 15 to 30 percent slopes--5 percent

Inclusion 2: Layview very cobbly loam, 8 to 15 percent slopes--5 percent

Inclusion 3: Pachic Cryoborolls, loamy-skeletal, mixed gravelly loam, wet, 30 to 50 percent slopes--3 percent

Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains

Tusel--Landform: Mountains; geomorphic position: backslope; shape of slope: concave

Layview--Landform: Mountains; geomorphic position: backslope; shape of slope: convex

Inclusion 1--Landform: Mountains; geomorphic position: shoulder; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: summit

Inclusion 3--Landform: Mountains; position on slope: upper; shape of slope: concave

Inclusion 4--Landform: Mountains

Major Component Description**Tusel Series**

Elevation: 7,800 to 8,800 feet

Precipitation: About 16 inches

Air temperature: About 41 degrees

Frost-free season: About 50 days

Surface layer texture: Gravelly loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from mixed rocks

Layview Series

Elevation: 7,800 to 8,800 feet

Precipitation: About 14 inches
Air temperature: About 42 degrees
Frost-free season: About 50 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Tusel: Columbia needlegrass, mountain big sagebrush, mountain brome, snowberry
 Layview: Idaho fescue, bluegrass, low sagebrush
 Inclusion 1: Mountain big sagebrush, mountain brome, snowberry, spike fescue
 Inclusion 2: Idaho fescue, bluegrass, low sagebrush
 Inclusion 3: Quaking aspen, tailcup lupine
 Inclusion 4: None

Ecological Site

Tusel: 025XY004NV
 Layview: 025XY024NV
 Inclusion 1: 025XY076NV
 Inclusion 2: 025XY032NV
 Inclusion 3: 025XY002NV
 Inclusion 4: none

1483--Tusel-Hackwood-Spinlin association

Composition

Major Components

Tusel gravelly loam, dry, 15 to 50 percent slopes--35 percent
 Hackwood silt loam, 15 to 50 percent slopes--25 percent
 Spinlin very cobbly loam, 15 to 50 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--5 percent
 Inclusion 2: Entic Cryobrepts, loamy-skeletal, mixed silt loam, 15 to 30 percent slopes--5 percent
 Inclusion 3: Cumulic Endoaquolls, coarse-loamy, mixed, frigid loam, drained, 2 to 4 percent slopes--3 percent
 Inclusion 4: Dystric Cryochrepts, loamy-skeletal, mixed gravelly loam, 30 to 50 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Tusel--Landform: Mountains; geomorphic position: backslope; shape of slope: plane

Hackwood--Landform: Mountains; geomorphic position: backslope; shape of slope: concave
 Spinlin--Landform: Mountains; geomorphic position: summit; shape of slope: concave
 Inclusion 1--Landform: Mountains
 Inclusion 2--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Mountains; geomorphic position: shoulder; position on slope: upper; shape of slope: concave

Major Component Description

Tusel Series

Elevation: 6,600 to 8,000 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Hackwood Series

Elevation: 6,600 to 8,000 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium and colluvium derived from volcanic rocks

Spinlin Series

Elevation: 6,600 to 8,000 feet
Precipitation: About 13 inches
Air temperature: About 38 degrees
Frost-free season: About 50 days
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Tusel: Idaho fescue, mountain big sagebrush, mountain brome, slender wheatgrass, snowberry
 Hackwood: Mountain brome, quaking aspen, slender wheatgrass, snowberry
 Spinlin: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Inclusion 1: None

- Inclusion 2: Mountain brome, quaking aspen, slender wheatgrass
 Inclusion 3: Nevada bluegrass, alpine timothy, basin wildrye, mat muhly, sedge
 Inclusion 4: Letterman needlegrass, tailcup lupine

Ecological Site

- Tusel: 025XY004NV
 Hackwood: 025XY065NV
 Spinlin: 025XY017NV
 Inclusion 1: none
 Inclusion 2: 025XY002NV
 Inclusion 3: 025XY006NV
 Inclusion 4: 025XY028NV

1484--Tusel-Ninemile-Cleavage association

Composition

Major Components

- Tusel gravelly loam, dry, 30 to 50 percent slopes--40 percent
 Ninemile gravelly loam, 30 to 50 percent slopes--25 percent
 Cleavage very cobbly loam, 15 to 30 percent slopes--20 percent

Contrasting Inclusions

- Inclusion 1: Entic Cryumbrepts, loamy-skeletal, mixed loam, 15 to 50 percent slopes--7 percent
 Inclusion 2: Rubble land--4 percent
 Inclusion 3: Udelope very stony loam, 30 to 75 percent slopes--3 percent
 Inclusion 4: Entic Cryumbrepts, coarse-loamy, mixed stony loam, 30 to 75 percent slopes--1 percent

Map Unit Setting

- Landscape position:*** Mountains
 Tusel--Landform: Mountains; geomorphic position: backslope; aspect: north
 Ninemile--Landform: Mountains; geomorphic position: backslope; shape of slope: convex
 Cleavage--Landform: Mountains; geomorphic position: summit
 Inclusion 1--Landform: Mountains; geomorphic position: backslope; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: convex
 Inclusion 4--Landform: Mountains; geomorphic position: backslope; position on slope: upper; shape of slope: concave

Major Component Description

Tusel Series

- Elevation:* 7,400 to 8,200 feet
Precipitation: About 16 inches
Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Ninemile Series

- Elevation:* 7,400 to 8,200 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 90 days
Surface rock fragments: 25 percent gravel
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Cleavage Series

- Elevation:* 7,600 to 8,200 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface rock fragments: 1 percent stones and boulders; 15 percent cobbles; 25 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

- Tusel: Columbia needlegrass, big sagebrush, mountain brome, snowberry
 Ninemile: Idaho fescue, bluebunch wheatgrass, low sagebrush
 Cleavage: Idaho fescue, low sagebrush
 Inclusion 1: Mountain brome, needlegrass, snowberry, snowbrush ceanothus
 Inclusion 2: None
 Inclusion 3: Idaho fescue, bluebunch wheatgrass, curlleaf mountainmahogany, mountain big sagebrush, needlegrass
 Inclusion 4: Columbia needlegrass, Letterman needlegrass, big sagebrush, limber pine, snowberry, spike fescue

Ecological Site

- Tusel: 025XY004NV
 Ninemile: 025XY017NV

Cleavage: 025XY024NV
 Inclusion 1: 025XY052NV
 Inclusion 2: none
 Inclusion 3: 025XY071NV
 Inclusion 4: 025XY073NV

1500--Eaglerock-Acrelane-Rock outcrop association

Composition

Major Components

Eaglerock very stony sandy loam, 15 to 50 percent slopes--45 percent
 Acrelane very stony sandy loam, 15 to 50 percent slopes--30 percent
 Rock outcrop--10 percent

Contrasting Inclusions

Inclusion 1: Eaglerock gravelly sandy loam, 4 to 15 percent slopes--7 percent
 Inclusion 2: Westbutte gravelly sandy loam, 30 to 75 percent slopes--5 percent
 Inclusion 3: Rio King cobbly sandy loam, 2 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains

Eaglerock--Landform: Mountains; aspect: north

Acrelane--Landform: Mountains; aspect: south

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; geomorphic position: footslope

Inclusion 2--Landform: Mountains; shape of slope: convex; aspect: north

Inclusion 3--Landform: Stream terraces

Major Component Description

Eaglerock Series

Elevation: 4,800 to 5,700 feet

Precipitation: About 12 inches

Air temperature: About 45 degrees

Frost-free season: About 100 days

Surface rock fragments: 3 percent stones and boulders; 15 percent gravel

Surface layer texture: Very stony sandy loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from granitic rocks

Acrelane Series

Elevation: 4,800 to 5,700 feet

Precipitation: About 10 inches

Air temperature: About 48 degrees

Frost-free season: About 100 days

Surface rock fragments: 7 percent stones and boulders; 15 percent cobbles; 20 percent gravel
Surface layer texture: Very stony sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from granitic rocks

Rock outcrop Miscellaneous Area

Elevation: 4,800 to 5,700 feet

Dominant Present Vegetation

Eaglerock: Thurber needlegrass, bluebunch wheatgrass, mountain big sagebrush

Acrelane: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass

Rock outcrop: None

Inclusion 1: Thurber needlegrass, basin big sagebrush, basin wildrye

Inclusion 2: Idaho fescue, bluebunch wheatgrass, threepike sagebrush

Inclusion 3: Basin big sagebrush, basin wildrye

Ecological Site

Eaglerock: 023XY039NV

Acrelane: 023XY049NV

Rock outcrop: None

Inclusion 1: 023XY040NV

Inclusion 2: 023XY053NV

Inclusion 3: 023XY009NV

1520--Croesus-Rock outcrop complex, 50 to 75 percent slopes

Composition

Major Components

Croesus very stony loam, south, 50 to 75 percent slopes--70 percent

Rock outcrop--15 percent

Contrasting Inclusions

Inclusion 1: Tusel stony loam, cool, 30 to 50 percent slopes--7 percent

Inclusion 2: Cleavage very cobbly loam, 15 to 50 percent slopes--3 percent

Inclusion 3: Cumulic Cryaquolls, fine-loamy, mixed stony loam, 4 to 15 percent slopes--3 percent

Inclusion 4: Hackwood stony loam, 30 to 75 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains

Croesus--Landform: Mountains; aspect: south

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; aspect: north

Inclusion 2--Landform: Mountains; geomorphic position: shoulder
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Canyons; shape of slope: concave

Major Component Description

Croesus Series

Elevation: 6,700 to 8,500 feet
Precipitation: About 18 inches
Air temperature: About 42 degrees
Frost-free season: About 50 days
Surface rock fragments: 5 percent stones and boulders; 5 percent cobbles; 30 percent gravel
Surface layer texture: Very stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 6,700 to 8,500 feet

Dominant Present Vegetation

Croesus: Basin wildrye, bluebunch wheatgrass, mountain big sagebrush, mountain brome, snowberry
 Rock outcrop: None
 Inclusion 1: Basin wildrye, mountain big sagebrush, mountain brome, snowberry
 Inclusion 2: Idaho fescue, low sagebrush
 Inclusion 3: Bluegrass, iris, rush, tufted hairgrass
 Inclusion 4: Mountain brome, needlegrass, quaking aspen

Ecological Site

Croesus: 023XY064NV
 Rock outcrop: None
 Inclusion 1: 023XY019NV
 Inclusion 2: 023XY008NV
 Inclusion 3: 023XY025NV
 Inclusion 4: 023XY028NV

1521--Croesus-Rock outcrop complex, 8 to 30 percent slopes

Composition

Major Components

Croesus stony loam, 8 to 30 percent slopes--75 percent
 Rock outcrop--10 percent

Contrasting Inclusions

Inclusion 1: Lithic Cryoborolls, loamy-skeletal, mixed very gravelly loam, 15 to 50 percent slopes--6 percent
 Inclusion 2: Harcany gravelly loam, cool, 4 to 15 percent slopes--6 percent
 Inclusion 3: Cumulic Cryaquolls, fine-loamy, mixed stony loam, 4 to 15 percent slopes--3 percent

Map Unit Setting

Landscape position: Mountains
 Croesus--Landform: Mountains; geomorphic position: summit
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; shape of slope: concave
 Inclusion 2--Landform: Mountains; geomorphic position: summit; shape of slope: concave
 Inclusion 3--Landform: Stream terraces

Major Component Description

Croesus Series

Elevation: 8,000 to 8,500 feet
Precipitation: About 18 inches
Air temperature: About 42 degrees
Frost-free season: About 50 days
Surface rock fragments: 2 percent stones and boulders; 40 percent gravel
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 8,000 to 8,500 feet

Dominant Present Vegetation

Croesus: Idaho fescue, lupine, mountain big sagebrush, needlegrass
 Rock outcrop: None
 Inclusion 1: Needlegrass, tailcup lupine
 Inclusion 2: Mountain big sagebrush, mountain brome, needlegrass, snowberry
 Inclusion 3: Bluegrass, iris, rush, tufted hairgrass

Ecological Site

Croesus: 023XY061NV
 Rock outcrop: None
 Inclusion 1: 023XY062NV
 Inclusion 2: 023XY019NV
 Inclusion 3: 023XY025NV

1522--Croesus-Harcany-Rock outcrop association

Composition

Major Components

Croesus very stony loam, south, 15 to 50 percent slopes--40 percent
 Harcany gravelly silt loam, moist, 15 to 50 percent slopes--35 percent
 Rock outcrop--15 percent

Contrasting Inclusions

Inclusion 1: Pachic Cryoborolls, loamy-skeletal, mixed very gravelly loam, cold, 30 to 75 percent slopes--6 percent
 Inclusion 2: Croesus very gravelly loam, 8 to 30 percent slopes--2 percent
 Inclusion 3: Cumulic Cryaquolls, fine-loamy, mixed stony loam, 4 to 75 percent slopes--2 percent

Map Unit Setting

Landscape position: Mountains
 Croesus--Landform: Mountains; aspect: south
 Harcany--Landform: Mountains; aspect: north
 Rock outcrop--Landform: Mountains
 Inclusion 1--Landform: Mountains; position on slope: upper; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Mountains; geomorphic position: summit
 Inclusion 3--Landform: Stream terraces

Major Component Description

Croesus Series

Elevation: 7,800 to 8,500 feet
Precipitation: About 18 inches
Air temperature: About 42 degrees
Frost-free season: About 50 days
Surface rock fragments: 5 percent stones and boulders; 5 percent cobbles; 30 percent gravel
Surface layer texture: Very stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Harcany Series

Elevation: 7,800 to 8,500 feet
Precipitation: About 15 inches
Air temperature: About 40 degrees
Frost-free season: About 50 days
Surface layer texture: Gravelly silt loam
Drainage class: Well drained
Dominant parent material: Colluvium derived from volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 7,800 to 8,500 feet

Dominant Present Vegetation

Croesus: Bluebunch wheatgrass, mountain big sagebrush, mountain brome, snowberry
 Harcany: Mountain big sagebrush, mountain brome, needlegrass, snowberry
 Rock outcrop: None
 Inclusion 1: Needlegrass, tailcup lupine
 Inclusion 2: Idaho fescue, bluebunch wheatgrass, lupine, mountain big sagebrush
 Inclusion 3: Rush, sedge, tufted hairgrass

Ecological Site

Croesus: 023XY064NV
 Harcany: 023XY065NV
 Rock outcrop: None
 Inclusion 1: 023XY062NV
 Inclusion 2: 023XY061NV
 Inclusion 3: 023XY025NV

1523--Croesus-Udelope-Layview association

Composition

Major Components

Croesus very stony loam, 8 to 30 percent slopes--45 percent
 Udelope very bouldery sandy loam, 8 to 30 percent slopes--25 percent
 Layview very gravelly loam, dry, 4 to 15 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Hackwood loam, 8 to 30 percent slopes--6 percent
 Inclusion 2: Rock outcrop--5 percent
 Inclusion 3: Cumulic Cryaquolls, fine-silty, mixed loam, 2 to 4 percent slopes--4 percent

Map Unit Setting

Landscape position: Mountains
 Croesus--Landform: Mountains; shape of slope: convex
 Udelope--Landform: Mountains; geomorphic position: shoulder; position on slope: upper
 Layview--Landform: Mountains; geomorphic position: summit
 Inclusion 1--Landform: Mountains; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Mountains
 Inclusion 3--Landform: Stream terraces

Major Component Description**Croesus Series**

Elevation: 7,200 to 8,000 feet
Precipitation: About 18 inches
Air temperature: About 42 degrees
Frost-free season: About 50 days
Surface rock fragments: 2 percent stones and boulders; 10 percent cobbles; 20 percent gravel
Surface layer texture: Very stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Udelope Series

Elevation: 7,200 to 8,000 feet
Precipitation: About 18 inches
Air temperature: About 43 degrees
Frost-free season: About 70 days
Surface layer texture: Very bouldery sandy loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Layview Series

Elevation: 7,200 to 8,000 feet
Precipitation: About 14 inches
Air temperature: About 42 degrees
Frost-free season: About 50 days
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Croesus: Columbia needlegrass, Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, snowberry
 Udelope: Bluebunch wheatgrass, bluegrass, curlleaf mountainmahogany, mountain big sagebrush, mountain snowberry
 Layview: Idaho fescue, bluegrass, low sagebrush
 Inclusion 1: Groundsel, mountain brome, quaking aspen, slender wheatgrass, snowberry
 Inclusion 2: None
 Inclusion 3: Nevada bluegrass, alpine timothy, basin wildrye, mat muhly, sedge

Ecological Site

Croesus: 025XY056NV
 Udelope: 025XY031NV
 Layview: 025XY024NV
 Inclusion 1: 025XY065NV
 Inclusion 2: none
 Inclusion 3: 025XY006NV

1524--Croesus-Spinlin association**Composition****Major Components**

Croesus stony loam, 4 to 15 percent slopes--45 percent
 Spinlin very stony silt loam, 4 to 15 percent slopes--40 percent

Contrasting Inclusions

Inclusion 1: Layview very cobbly loam, 15 to 30 percent slopes--8 percent
 Inclusion 2: Dystric Cryochrepts, loamy-skeletal, mixed very gravelly loam, 30 to 50 percent slopes--4 percent
 Inclusion 3: Rock outcrop--2 percent
 Inclusion 4: Cumulic Cryaquolls, fine-silty, mixed silt loam, 0 to 2 percent slopes--1 percent

Map Unit Setting

Landscape position: Mountains
 Croesus--Landform: Mountains; geomorphic position: summit; shape of slope: plane
 Spinlin--Landform: Mountains; geomorphic position: summit; shape of slope: convex
 Inclusion 1--Landform: Mountains; geomorphic position: summit
 Inclusion 2--Landform: Mountains; shape of slope: concave
 Inclusion 3--Landform: Mountains
 Inclusion 4--Landform: Stream terraces

Major Component Description**Croesus Series**

Elevation: 8,000 to 8,800 feet
Precipitation: About 18 inches
Air temperature: About 42 degrees
Frost-free season: About 50 days
Surface rock fragments: 1 percent stones and boulders; 10 percent cobbles; 20 percent gravel
Surface layer texture: Stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Spinlin Series

Elevation: 8,000 to 8,800 feet
Precipitation: About 13 inches
Air temperature: About 38 degrees
Frost-free season: About 50 days
Surface layer texture: Very stony silt loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from volcanic rocks

Dominant Present Vegetation

Croesus: Idaho fescue, mountain big sagebrush, needlegrass
 Spinlin: Idaho fescue, low sagebrush
 Inclusion 1: Idaho fescue, bluegrass, low sagebrush
 Inclusion 2: Letterman needlegrass, tailcup lupine
 Inclusion 3: None
 Inclusion 4: Bluegrass, iris, rush, tufted hairgrass

Ecological Site

Croesus: 025XY056NV
 Spinlin: 025XY017NV
 Inclusion 1: 025XY024NV
 Inclusion 2: 025XY028NV
 Inclusion 3: none
 Inclusion 4: 025XY005NV

1530--Westbutte stony loam, 15 to 50 percent slopes***Composition*****Major Components**

Westbutte stony loam, 15 to 50 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Harcany stony loam, cool, 15 to 50 percent slopes--5 percent
 Inclusion 2: Menbo very stony loam, 15 to 50 percent slopes--5 percent
 Inclusion 3: Longcreek very stony loam, 30 to 50 percent slopes--3 percent
 Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains
 Westbutte--Landform: Mountains; aspect: north
 Inclusion 1--Landform: Mountains; shape of slope: concave; aspect: north
 Inclusion 2--Landform: Mountains; position on slope: upper; aspect: north
 Inclusion 3--Landform: Mountains; aspect: south
 Inclusion 4--Landform: Mountains

Major Component Description**Westbutte Series**

Elevation: 5,600 to 6,500 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface rock fragments: 2 percent stones and boulders; 10 percent cobbles; 15 percent gravel

Surface layer texture: Stony loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Dominant Present Vegetation

Westbutte: Idaho fescue, threetip sagebrush
 Inclusion 1: Mountain big sagebrush, mountain brome, needlegrass, snowberry
 Inclusion 2: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 3: Bluebunch wheatgrass, mountain big sagebrush
 Inclusion 4: None

Ecological Site

Westbutte: 023XY053NV
 Inclusion 1: 023XY019NV
 Inclusion 2: 023XY007NV
 Inclusion 3: 023XY018NV
 Inclusion 4: none

1540--Locane very cobbly loam, 8 to 30 percent slopes***Composition*****Major Components**

Locane very cobbly loam, 8 to 30 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Menbo very gravelly loam, 15 to 50 percent slopes--8 percent
 Inclusion 2: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Plateaus and hills
 Locane--Landform: Hills; geomorphic position: summit
 Inclusion 1--Landform: Hills; aspect: north
 Inclusion 2--Landform: Hills

Major Component Description**Locane Series**

Elevation: 5,600 to 6,000 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 20 percent cobbles; 20 percent gravel
Surface layer texture: Very cobbly loam
Drainage class: Well drained

Dominant parent material: Residuum derived from mixed rocks

Dominant Present Vegetation

Locane: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
Inclusion 1: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush
Inclusion 2: None

Ecological Site

Locane: 023XY020NV
Inclusion 1: 023XY007NV
Inclusion 2: none

1551--Charwell-Anawalt association

Composition

Major Components

Charwell gravelly loam, 4 to 15 percent slopes--35 percent
Anawalt cobbly loam, 4 to 15 percent slopes--30 percent
Anawalt very gravelly loam, 4 to 30 percent slopes, eroded--20 percent

Contrasting Inclusions

Inclusion 1: Rock outcrop--5 percent
Inclusion 2: Carstump gravelly loam, 4 to 30 percent slopes--4 percent
Inclusion 3: Xipe gravelly loam, drained, 2 to 8 percent slopes--3 percent
Inclusion 4: Xipe gravelly loam, 2 to 8 percent slopes--3 percent

Map Unit Setting

Landscape position: Plateaus and hills
Charwell--Landform: Plateaus; aspect: north
Anawalt--Landform: Plateaus; aspect: south
Anawalt--Landform: Plateaus
Inclusion 1--Landform: Hills
Inclusion 2--Landform: Plateaus; geomorphic position: summit; shape of slope: concave
Inclusion 3--Landform: Stream terraces
Inclusion 4--Landform: Flood plains

Major Component Description

Charwell Series

Elevation: 5,700 to 6,300 feet
Precipitation: About 14 inches
Air temperature: About 42 degrees
Frost-free season: About 70 days
Surface layer texture: Gravelly loam
Drainage class: Well drained

Dominant parent material: Residuum derived from volcanic rocks

Anawalt Series

Elevation: 5,700 to 6,300 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Anawalt Series

Elevation: 5,700 to 6,300 feet
Precipitation: About 11 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface rock fragments: 2 percent cobbles; 40 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Dominant Present Vegetation

Charwell: Idaho fescue, low sagebrush
Anawalt: Thurber needlegrass, bluebunch wheatgrass, bluegrass, low sagebrush
Anawalt: Sandberg bluegrass, bottlebrush squirreltail, low sagebrush
Inclusion 1: None
Inclusion 2: Basin wildrye, big sagebrush, bluebunch wheatgrass
Inclusion 3: Basin big sagebrush, basin wildrye
Inclusion 4: Bluegrass, sedge, tufted hairgrass

Ecological Site

Charwell: 025XY017NV
Anawalt: 025XY018NV
Anawalt: 023XY021NV
Inclusion 1: none
Inclusion 2: 025XY014NV
Inclusion 3: 025XY003NV
Inclusion 4: 025XY005NV

1560--Menbo-Rock outcrop complex, 50 to 75 percent slopes

Composition

Major Components

Menbo very gravelly loam, 50 to 75 percent slopes--75 percent

Rock outcrop--10 percent

Contrasting Inclusions

Inclusion 1: Bullump very stony loam, 30 to 75 percent slopes--8 percent

Inclusion 2: Cleavage very cobbly loam, 15 to 50 percent slopes--7 percent

Map Unit Setting

Landscape position: Mountains

Menbo--Landform: Mountains; aspect: north

Rock outcrop--Landform: Mountains

Inclusion 1--Landform: Mountains; aspect: south

Inclusion 2--Landform: Mountains; geomorphic position: shoulder

Major Component Description

Menbo Series

Elevation: 6,400 to 7,300 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 1 percent stones and

boulders; 10 percent cobbles; 35 percent gravel

Surface layer texture: Very gravelly loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Rock outcrop Miscellaneous Area

Elevation: 6,400 to 7,300 feet

Dominant Present Vegetation

Menbo: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush

Rock outcrop: None

Inclusion 1: Bluebunch wheatgrass, mountain big sagebrush, mountain brome, snowberry

Inclusion 2: Idaho fescue, bluegrass, low sagebrush

Ecological Site

Menbo: 023XY007NV

Rock outcrop: None

Inclusion 1: 023XY064NV

Inclusion 2: 023XY008NV

1561--Menbo-Madeline-Tusel association

Composition

Major Components

Menbo very stony loam, 4 to 15 percent slopes--40 percent

Madeline very stony loam, 4 to 15 percent slopes--25 percent

Tusel cobbly loam, cool, 4 to 30 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Ninemile very stony loam, 4 to 15 percent slopes--3 percent

Inclusion 2: Anawalt stony loam, 4 to 15 percent slopes--3 percent

Inclusion 3: Cumulic Endoaquolls, fine-silty, mixed, frigid stony loam, 2 to 8 percent slopes--2 percent

Inclusion 4: Rock outcrop--2 percent

Map Unit Setting

Landscape position: Mountains

Menbo--Landform: Mountains; aspect: north

Madeline--Landform: Mountains; aspect: south

Tusel--Landform: Mountains; position on slope: upper; shape of slope: concave

Inclusion 1--Landform: Mountains; geomorphic position: summit; position on slope: upper; shape of slope: convex

Inclusion 2--Landform: Mountains; geomorphic position: summit; position on slope: lower; shape of slope: convex

Inclusion 3--Landform: Stream terraces

Inclusion 4--Landform: Mountains

Major Component Description

Menbo Series

Elevation: 5,800 to 6,400 feet

Precipitation: About 14 inches

Air temperature: About 43 degrees

Frost-free season: About 80 days

Surface rock fragments: 5 percent stones and

boulders; 15 percent cobbles; 15 percent gravel

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Colluvium derived from volcanic rocks

Madeline Series

Elevation: 5,800 to 6,200 feet

Precipitation: About 14 inches

Air temperature: About 42 degrees

Frost-free season: About 80 days

Surface rock fragments: 3 percent stones and

boulders; 5 percent cobbles; 10 percent gravel

Surface layer texture: Very stony loam

Drainage class: Well drained

Dominant parent material: Residuum and colluvium derived from volcanic rocks

Tusel Series

Elevation: 6,000 to 6,400 feet

Precipitation: About 16 inches
Air temperature: About 41 degrees
Frost-free season: About 50 days
Surface rock fragments: 2 percent stones and boulders; 30 percent cobbles; 10 percent gravel
Surface layer texture: Cobbly loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium derived from mixed rocks

Dominant Present Vegetation

Menbo: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, snowberry
 Madeline: Thurber needlegrass, antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush
 Tusel: Mountain big sagebrush, mountain brome, needlegrass, snowberry
 Inclusion 1: Idaho fescue, bluegrass, low sagebrush
 Inclusion 2: Thurber needlegrass, bluebunch wheatgrass, bluegrass, low sagebrush
 Inclusion 3: Rush, sedge, tufted hairgrass
 Inclusion 4: None

Ecological Site

Menbo: 023XY007NV
 Madeline: 023XY020NV
 Tusel: 023XY019NV
 Inclusion 1: 023XY017NV
 Inclusion 2: 023XY031NV
 Inclusion 3: 023XY025NV
 Inclusion 4: none

1562--Menbo-Devada-Longcreek association

Composition

Major Components

Menbo very stony loam, 15 to 50 percent slopes--30 percent
 Devada very gravelly loam, 8 to 30 percent slopes--30 percent
 Longcreek very stony loam, 15 to 50 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Zymans stony loam, 2 to 8 percent slopes--6 percent
 Inclusion 2: Ninemile stony loam, 4 to 15 percent slopes--5 percent
 Inclusion 3: Cumulic Endoaquolls, coarse-loamy, mixed, frigid stony loam, 2 to 15 percent slopes--3 percent

Inclusion 4: Rock outcrop--1 percent

Map Unit Setting

Landscape position: Plateaus
 Menbo--Landform: Plateaus; aspect: north
 Devada--Landform: Plateaus; geomorphic position: summit
 Longcreek--Landform: Plateaus; aspect: south
 Inclusion 1--Landform: Plateaus; geomorphic position: summit; position on slope: lower; shape of slope: concave
 Inclusion 2--Landform: Plateaus; geomorphic position: shoulder; aspect: north
 Inclusion 3--Landform: Stream terraces
 Inclusion 4--Landform: Plateaus

Major Component Description

Menbo Series

Elevation: 5,500 to 6,200 feet
Precipitation: About 14 inches
Air temperature: About 43 degrees
Frost-free season: About 80 days
Surface rock fragments: 5 percent stones and boulders; 15 percent cobbles; 15 percent gravel
Surface layer texture: Very stony loam
Drainage class: Well drained
Dominant parent material: Colluvium derived from volcanic rocks

Devada Series

Elevation: 5,500 to 6,200 feet
Precipitation: About 10 inches
Air temperature: About 45 degrees
Frost-free season: About 90 days
Surface rock fragments: 2 percent cobbles; 35 percent gravel
Surface layer texture: Very gravelly loam
Drainage class: Well drained
Dominant parent material: Residuum derived from volcanic rocks

Longcreek Series

Elevation: 5,500 to 6,200 feet
Precipitation: About 12 inches
Air temperature: About 46 degrees
Frost-free season: About 90 days
Surface rock fragments: 5 percent stones and boulders; 15 percent cobbles; 20 percent gravel
Surface layer texture: Very stony loam
Drainage class: Well drained
Dominant parent material: Residuum and colluvium

derived from volcanic rocks

Dominant Present Vegetation

Menbo: Idaho fescue, bluebunch wheatgrass, mountain big sagebrush, snowberry
 Devada: Bluebunch wheatgrass, bottlebrush squirreltail, low sagebrush
 Longcreek: Thurber needlegrass, antelope bitterbrush, bluebunch wheatgrass, mountain big sagebrush
 Inclusion 1: Thurber needlegrass, big sagebrush, bluebunch wheatgrass
 Inclusion 2: Idaho fescue, bottlebrush squirreltail, low sagebrush
 Inclusion 3: Bluegrass, sedge, tufted hairgrass
 Inclusion 4: None

Ecological Site

Menbo: 023XY007NV
 Devada: 023XY031NV
 Longcreek: 023XY018NV
 Inclusion 1: 023XY020NV
 Inclusion 2: 023XY017NV
 Inclusion 3: 023XY025NV
 Inclusion 4: none

1570--Delvada silty clay

Composition

Major Components
 Delvada silty clay, 0 to 2 percent slopes--90 percent
Contrasting Inclusions
 Inclusion 1: Delvada silty clay loam, drained, 0 to 2 percent slopes--7 percent
 Inclusion 2: Delvada silty clay loam, strongly saline, 0 to 2 percent slopes--3 percent

Map Unit Setting

Landscape position: Intermontane basins
 Delvada--Landform: Flood plains
 Inclusion 1--Landform: Stream terraces
 Inclusion 2--Landform: Stream terraces

Major Component Description

Delvada Series
Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silty clay
Drainage class: Very poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Delvada: Creeping wildrye, rush
 Inclusion 1: Alkali sacaton, inland saltgrass
 Inclusion 2: Alkali sacaton, basin wildrye, inland saltgrass

Ecological Site

Delvada: 025XY001NV
 Inclusion 1: 024XY007NV
 Inclusion 2: 024XY009NV

1572--Delvada silty clay loam, drained, strongly saline

Composition

Major Components
 Delvada silty clay loam, drained, 0 to 2 percent slopes--85 percent
Contrasting Inclusions
 Inclusion 1: Delvada silty clay loam, drained, 0 to 2 percent slopes--5 percent
 Inclusion 2: Delvada silty clay loam, strongly saline, 0 to 2 percent slopes--5 percent
 Inclusion 3: Delvada silty clay, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins
 Delvada--Landform: Stream terraces
 Inclusion 1--Landform: Stream terraces
 Inclusion 2--Landform: Stream terraces
 Inclusion 3--Landform: Sloughs

Major Component Description

Delvada Series
Elevation: 4,300 to 4,800 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silty clay loam
Drainage class: Very poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Delvada: Basin wildrye, black greasewood, inland saltgrass, rabbitbrush
 Inclusion 1: Black greasewood, inland saltgrass
 Inclusion 2: Alkali sacaton, basin wildrye, inland saltgrass
 Inclusion 3: Creeping wildrye, rush

Ecological Site

Delvada: 024XY007NV
 Inclusion 1: 024XY011NV
 Inclusion 2: 024XY009NV
 Inclusion 3: 025XY001NV

1579--Delvada silty clay loam, occasionally flooded**Composition****Major Components**

Delvada silty clay loam, 0 to 2 percent slopes, occasionally flooded--85 percent

Contrasting Inclusions

Inclusion 1: Humboldt silty clay loam, strongly saline, 0 to 2 percent slopes--10 percent
 Inclusion 2: Wendane silt loam, 0 to 2 percent slopes--3 percent
 Inclusion 3: Sonoma silt loam, 0 to 2 percent slopes, frequently flooded--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Delvada--Landform: Flood plains
 Inclusion 1--Landform: Stream terraces
 Inclusion 2--Landform: Stream terraces; position on slope: upper
 Inclusion 3--Landform: Drainageways

Major Component Description**Delvada Series**

Elevation: 4,100 to 4,200 feet
Precipitation: About 9 inches
Air temperature: About 48 degrees
Frost-free season: About 110 days
Surface layer texture: Silty clay loam
Drainage class: Very poorly drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Delvada: Baltic rush, alkali bluegrass, inland saltgrass
 Inclusion 1: Alkali sacaton, basin wildrye, black greasewood, inland saltgrass
 Inclusion 2: Black greasewood, inland saltgrass
 Inclusion 3: Basin wildrye, creeping wildrye

Ecological Site

Delvada: 024XY043NV
 Inclusion 1: 024XY007NV
 Inclusion 2: 024XY011NV
 Inclusion 3: 025XY001NV

1580--Isolde-Essal association**Composition****Major Components**

Isolde fine sand, slightly saline, 4 to 30 percent slopes--35 percent
 Essal silt loam, 0 to 2 percent slopes--30 percent
 Essal loamy fine sand, moderately saline, 0 to 2 percent slopes--25 percent

Contrasting Inclusions

Inclusion 1: Essal silt loam, moderately wet, 0 to 2 percent slopes--6 percent
 Inclusion 2: Essal loamy fine sand, thick surface, 0 to 2 percent slopes--2 percent
 Inclusion 3: Playas--2 percent

Map Unit Setting

Landscape position: Intermontane basins
 Isolde--Landform: Dunes
 Essal--Landform: Lake plains
 Essal--Landform: Lake plains
 Inclusion 1--Landform: Lake plains; shape of slope: concave
 Inclusion 2--Landform: Lake plains
 Inclusion 3--Landform: Playas

Major Component Description**Isolde Series**

Elevation: 4,000 to 4,300 feet
Precipitation: About 7 inches
Air temperature: About 52 degrees
Frost-free season: About 120 days
Surface layer texture: Fine sand
Drainage class: Excessively drained
Dominant parent material: Eolian sand

Essal Series

Elevation: 4,000 to 4,300 feet
Precipitation: About 6 inches
Air temperature: About 52 degrees
Frost-free season: About 120 days
Surface layer texture: Silt loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from lacustrine sediments

Essal Series

Elevation: 4,000 to 4,300 feet
Precipitation: About 6 inches
Air temperature: About 52 degrees
Frost-free season: About 120 days
Surface layer texture: Loamy fine sand
Drainage class: Well drained

Dominant parent material: Alluvium derived from lacustrine sediments

Dominant Present Vegetation

Isolde: Indian ricegrass, black greasewood, hairy horsebrush

Essal: Black greasewood, bottlebrush squirreltail, shadscale

Essal: Indian ricegrass, black greasewood, spiny hopsage

Inclusion 1: Black greasewood

Inclusion 2: Indian ricegrass, Wyoming big sagebrush, black greasewood

Inclusion 3: None

Ecological Site

Isolde: 027XY016NV

Essal: 024XY003NV

Essal: 027XY016NV

Inclusion 1: 027XY024NV

Inclusion 2: 024XY022NV

Inclusion 3: none

1594--Boton complex

Composition

Major Components

Boton silt loam, 0 to 2 percent slopes--55 percent

Boton silt loam, 0 to 2 percent slopes, occasionally flooded--30 percent

Contrasting Inclusions

Inclusion 1: Prideen silt loam, 0 to 2 percent slopes, rarely flooded--5 percent

Inclusion 2: Wendane silt loam, 0 to 2 percent slopes, occasionally flooded--5 percent

Inclusion 3: Playas--3 percent

Inclusion 4: Wendane silt loam, drained, 0 to 2 percent slopes--2 percent

Map Unit Setting

Landscape position: Intermontane basins

Boton--Landform: Lake plains

Boton--Landform: Drainageways

Inclusion 1--Landform: Drainageways

Inclusion 2--Landform: Drainageways

Inclusion 3--Landform: Playas

Inclusion 4--Landform: Lake plains

Major Component Description

Boton Series

Elevation: 4,150 to 4,300 feet

Precipitation: About 7 inches

Air temperature: About 51 degrees

Frost-free season: About 130 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks over lacustrine sediments

Boton Series

Elevation: 4,150 to 4,300 feet

Precipitation: About 7 inches

Air temperature: About 51 degrees

Frost-free season: About 130 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks over lacustrine sediments

Dominant Present Vegetation

Boton: Black greasewood, bottlebrush squirreltail, seepweed, shadscale

Boton: Black greasewood, iodinebush, seepweed

Inclusion 1: Iodinebush, seepweed

Inclusion 2: Alkali sacaton, basin wildrye, black greasewood

Inclusion 3: None

Inclusion 4: Torrey quailbush, basin big sagebrush, basin wildrye, black greasewood, rabbitbrush

Ecological Site

Boton: 024XY003NV

Boton: 027XY025NV

Inclusion 1: 024XY010NV

Inclusion 2: 024XY007NV

Inclusion 3: none

Inclusion 4: 024XY015NV

1600--Clurde loam, 0 to 2 percent slopes

Composition

Major Components

Clurde loam, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Rodock loam, moist, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Clurde--Landform: Fan skirts

Inclusion 1--Landform: Drainageways

Major Component Description**Clurde Series**

Elevation: 4,200 to 4,400 feet
Precipitation: About 9 inches
Air temperature: About 49 degrees
Frost-free season: About 100 days
Surface layer texture: Loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Clurde: Basin big sagebrush, basin wildrye
 Inclusion 1: Basin big sagebrush, basin wildrye

Ecological Site

Clurde: 024XY006NV
 Inclusion 1: 025XY003NV

1610--Gochea-Igdell association**Composition****Major Components**

Gochea gravelly loam, 2 to 8 percent slopes--55 percent
 Gochea gravelly loam, 8 to 30 percent slopes--15 percent
 Igdell gravelly loam, 4 to 15 percent slopes--15 percent

Contrasting Inclusions

Inclusion 1: Zevadez gravelly loam, south, 15 to 50 percent slopes--7 percent
 Inclusion 2: Dacker loam, 0 to 4 percent slopes--4 percent
 Inclusion 3: Rio King loam, slightly saline, 0 to 4 percent slopes--2 percent
 Inclusion 4: Cumulic Endoaquolls, fine-loamy, mixed, mesic loam, 0 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts
 Gochea--Landform: Fan remnants; geomorphic position: summit
 Gochea--Landform: Fan remnants; aspect: north
 Igdell--Landform: Fan remnants; position on slope: upper
 Inclusion 1--Landform: Fan remnants; aspect: south
 Inclusion 2--Landform: Fan remnants
 Inclusion 3--Landform: Drainageways
 Inclusion 4--Landform: Stream terraces

Major Component Description**Gochea Series**

Elevation: 5,900 to 6,200 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Gochea Series

Elevation: 5,900 to 6,200 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 90 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Igdell Series

Elevation: 5,900 to 6,200 feet
Precipitation: About 12 inches
Air temperature: About 44 degrees
Frost-free season: About 80 days
Surface layer texture: Gravelly loam
Drainage class: Well drained
Dominant parent material: Alluvium derived from mixed rocks

Dominant Present Vegetation

Gochea: Thurber needlegrass, antelope bitterbrush, big sagebrush, bluebunch wheatgrass
 Gochea: Idaho fescue, basin big sagebrush, basin wildrye, bluebunch wheatgrass
 Igdell: Bluebunch wheatgrass, bluegrass, low sagebrush
 Inclusion 1: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 2: Thurber needlegrass, Wyoming big sagebrush, bluebunch wheatgrass
 Inclusion 3: Basin big sagebrush, basin wildrye
 Inclusion 4: Nevada bluegrass, sedge

Ecological Site

Gochea: 025XY014NV
 Gochea: 025XY027NV
 Igdell: 025XY017NV
 Inclusion 1: 025XY015NV
 Inclusion 2: 025XY019NV

Inclusion 3: 025XY003NV

Inclusion 4: 025XY006NV

1620--Weso very fine sandy loam, 2 to 4 percent slopes

Composition

Major Components

Weso very fine sandy loam, 2 to 4 percent slopes--90 percent

Contrasting Inclusions

Inclusion 1: Enko, 2 to 4 percent slopes--5 percent

Inclusion 2: Pumper very fine sandy loam, 2 to 4 percent slopes--5 percent

Map Unit Setting

Landscape position: Fan piedmonts

Weso--Landform: Fan remnants

Inclusion 1--Landform: Fan remnants; shape of slope: concave

Inclusion 2--Landform: Beach terraces

Major Component Description

Weso Series

Elevation: 4,100 to 4,200 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Weso: Bottlebrush squirreltail, bud sagebrush, shadscale

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 2: Bud sagebrush, shadscale

Ecological Site

Weso: 024XY002NV

Inclusion 1: 024XY017NV

Inclusion 2: 024XY002NV

1621--Weso-Wholan complex

Composition

Major Components

Weso very fine sandy loam, 0 to 2 percent slopes--45 percent

Wholan silt loam, 0 to 2 percent slopes--45 percent

Contrasting Inclusions

Inclusion 1: Pumper very fine sandy loam, 0 to 4 percent slopes--5 percent

Inclusion 2: Rad fine sandy loam, dry, 0 to 2 percent slopes--5 percent

Map Unit Setting

Landscape position: Intermontane basins

Weso--Landform: Inset fans; position on slope: upper

Wholan--Landform: Inset fans; position on slope: lower

Inclusion 1--Landform: Spits

Inclusion 2--Landform: Drainageways; position on slope: upper

Major Component Description

Weso Series

Elevation: 4,150 to 4,300 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Wholan Series

Elevation: 4,150 to 4,300 feet

Precipitation: About 7 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Silt loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Weso: Bottlebrush squirreltail, bud sagebrush, shadscale

Wholan: Indian ricegrass, bottlebrush squirreltail, winterfat

Inclusion 1: Indian ricegrass, bud sagebrush, shadscale

Inclusion 2: Wyoming big sagebrush, bottlebrush squirreltail, spiny hopsage

Ecological Site

Weso: 024XY002NV

Wholan: 024XY004NV

Inclusion 1: 024XY002NV

Inclusion 2: 024XY020NV

1622--Weso-Davey-Broyles association**Composition****Major Components**

Weso very fine sandy loam, 2 to 8 percent slopes--35 percent
 Davey loamy fine sand, 2 to 8 percent slopes--30 percent
 Broyles loam, 0 to 4 percent slopes--20 percent

Contrasting Inclusions

Inclusion 1: Goldrun fine sand, 4 to 15 percent slopes--5 percent
 Inclusion 2: Pumper stony fine sandy loam, 0 to 4 percent slopes--5 percent
 Inclusion 3: McConnel stony fine sandy loam, 0 to 4 percent slopes--3 percent
 Inclusion 4: Hawsley fine sand, 0 to 4 percent slopes--2 percent

Map Unit Setting

Landscape position: Fan piedmonts

Weso--Landform: Fan remnants; geomorphic position: summit

Davey--Landform: Sand sheets

Broyles--Landform: Fan remnants; position on slope: upper

Inclusion 1--Landform: Dunes

Inclusion 2--Landform: Drainageways; position on slope: lower

Inclusion 3--Landform: Drainageways; position on slope: upper

Inclusion 4--Landform: Sand sheets; position on slope: lower

Major Component Description**Weso Series**

Elevation: 4,200 to 4,400 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Very fine sandy loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Davey Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 9 inches

Air temperature: About 49 degrees

Frost-free season: About 110 days

Surface layer texture: Loamy fine sand

Drainage class: Somewhat excessively drained

Dominant parent material: Alluvium derived from mixed rocks

Broyles Series

Elevation: 4,200 to 4,400 feet

Precipitation: About 7 inches

Air temperature: About 48 degrees

Frost-free season: About 110 days

Surface layer texture: Loam

Drainage class: Well drained

Dominant parent material: Alluvium derived from mixed rocks, loess and volcanic ash

Dominant Present Vegetation

Weso: Bottlebrush squirreltail, bud sagebrush, shadscale

Davey: Indian ricegrass, Wyoming big sagebrush, needleandthread

Broyles: Indian ricegrass, bluegrass, bud sagebrush, winterfat

Inclusion 1: Indian ricegrass, basin big sagebrush, hairy horsebrush

Inclusion 2: Indian ricegrass, bud sagebrush, shadscale

Inclusion 3: Wyoming big sagebrush, bluegrass, bottlebrush squirreltail, spiny hopsage

Inclusion 4: Indian ricegrass, fourwing saltbush, needleandthread, spiny hopsage

Ecological Site

Weso: 024XY002NV

Davey: 024XY017NV

Broyles: 024XY004NV

Inclusion 1: 024XY001NV

Inclusion 2: 024XY002NV

Inclusion 3: 024XY020NV

Inclusion 4: 024XY055NV

1630--Bliss loam, 0 to 2 percent slopes**Composition****Major Components**

Bliss loam, 0 to 2 percent slopes--85 percent

Contrasting Inclusions

Inclusion 1: Rodock loam, 0 to 2 percent slopes--8 percent

Inclusion 2: Rodock gravelly loam, 0 to 2 percent slopes, rarely flooded--7 percent

Map Unit Setting

Landscape position: Fan piedmonts

Bliss--Landform: Fan remnants

Inclusion 1--Landform: Inset fans

Inclusion 2--Landform: Drainageways

Major Component Description**Bliss Series***Elevation:* 4,100 to 4,500 feet*Precipitation:* About 9 inches*Air temperature:* About 47 degrees*Frost-free season:* About 110 days*Surface layer texture:* Loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks**Dominant Present Vegetation**

Bliss: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Basin wildrye, big sagebrush, bottlebrush squirreltail

Inclusion 2: Basin big sagebrush, basin wildrye

Ecological Site

Bliss: 024XY005NV

Inclusion 1: 024XY013NV

Inclusion 2: 025XY003NV

1631--Bliss very fine sandy loam, 0 to 2 percent slopes**Composition****Major Components**

Bliss very fine sandy loam, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Orovada very fine sandy loam, moist, 0 to 2 percent slopes--5 percent

Map Unit Setting*Landscape position:* Fan piedmonts

Bliss--Landform: Fan remnants

Inclusion 1--Landform: Inset fans

Major Component Description**Bliss Series***Elevation:* 4,100 to 4,600 feet*Precipitation:* About 9 inches*Air temperature:* About 47 degrees*Frost-free season:* About 110 days*Surface layer texture:* Very fine sandy loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from mixed rocks**Dominant Present Vegetation**

Bliss: Wyoming big sagebrush, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Bliss: 024XY005NV

Inclusion 1: 024XY005NV

1640--Kleck loam**Composition****Major Components**

Kleck loam, 0 to 2 percent slopes--95 percent

Contrasting Inclusions

Inclusion 1: Clurde loam, moist, 0 to 2 percent slopes--5 percent

Map Unit Setting*Landscape position:* Intermontane basins

Kleck--Landform: Lake plains

Inclusion 1--Landform: Drainageways; shape of slope: concave

Major Component Description**Kleck Series***Elevation:* 4,100 to 4,300 feet*Precipitation:* About 8 inches*Air temperature:* About 49 degrees*Frost-free season:* About 110 days*Surface layer texture:* Loam*Drainage class:* Well drained*Dominant parent material:* Alluvium derived from lacustrine sediments**Dominant Present Vegetation**

Kleck: Wyoming big sagebrush, black greasewood, bottlebrush squirreltail

Inclusion 1: Wyoming big sagebrush, bottlebrush squirreltail

Ecological Site

Kleck: 024XY022NV

Inclusion 1: 024XY005NV

1650--Water**Composition****Major Components**

Water--100 percent

Map Unit Setting*Landscape position:* Intermontane basins

Major Component Description

Elevation: 4,000 to 9,000 feet

1651--Miscellaneous Water

Composition

Major Components

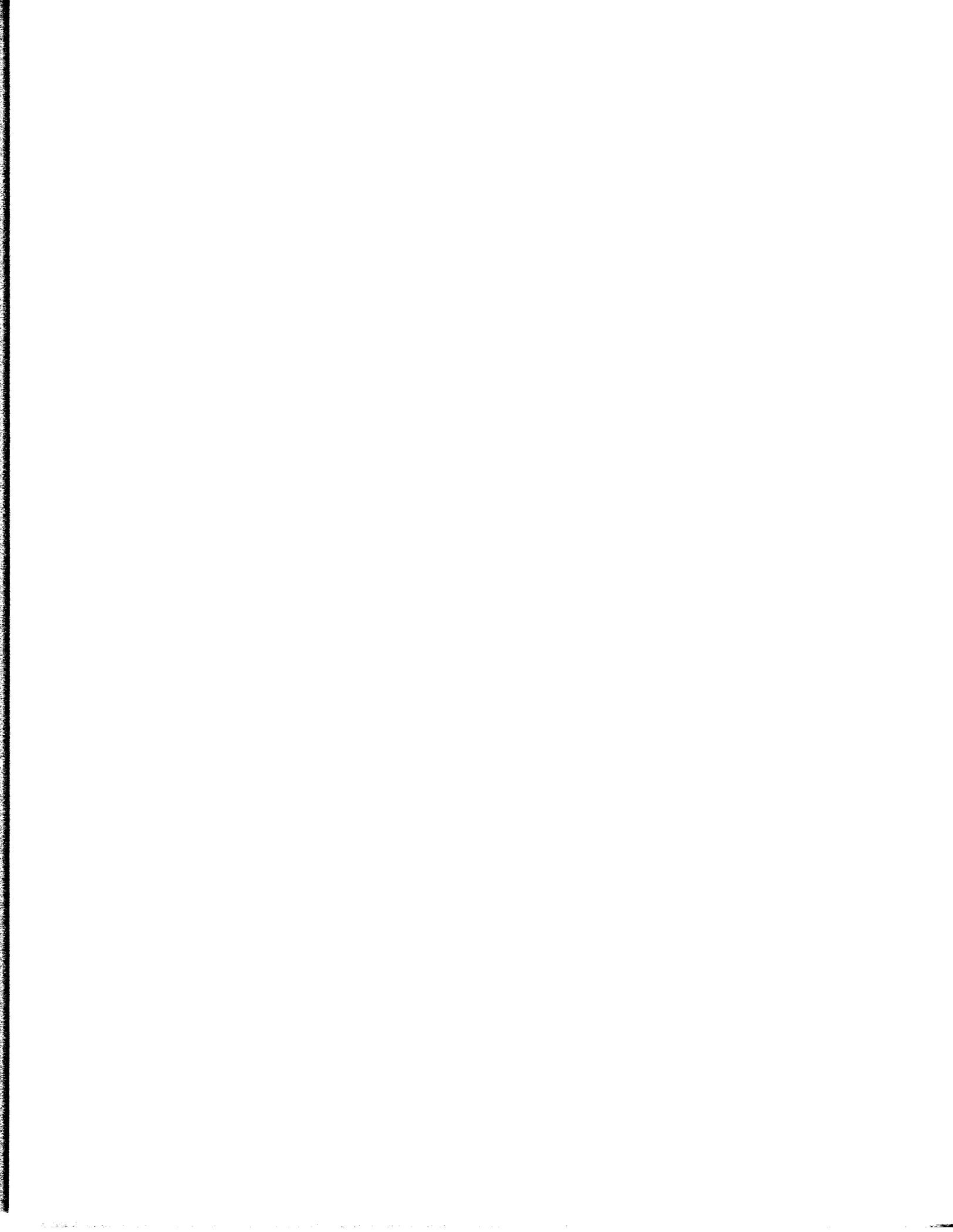
Miscellaneous Water--100 percent

Map Unit Setting

Landscape position: Intermontane basins

Major Component Description

Elevation: 4,000 to 5,000 feet



Prime Farmland

Prime Farmland and Other Important Farmland

In this section, prime farmland and other important farmland are defined. The map units in the survey area that are considered prime farmland are listed under "Prime Farmland Map Units" at the end of this section.

Prime Farmland

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. The acreage of high-quality farmland is limited, and the U.S. Department of Agriculture recognizes that government at local, State, and Federal levels, as well as individuals, must encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland soils, as defined by the U.S. Department of Agriculture, are soils that are best suited to food, seed, forage, fiber, and oilseed crops. Such soils have properties that favor the economic production of sustained high yields of crops. The soils need only to be treated and managed by acceptable farming methods. An adequate moisture supply and a sufficiently long growing season are required. Prime farmland soils produce the highest yields with minimal expenditure of energy and economic resources, and farming these soils results in the least damage to the environment.

Prime farmland soils may presently be used as cropland, pasture, woodland or for other purposes. They are used for food and fiber or are available for these uses. Urban or built-up land and water areas cannot be considered prime farmland. Urban or built-up land is any contiguous unit of 10 acres or more in size that is used for such purposes as housing, industrial, and commercial sites, sites for institutions or public buildings, small

parks, golf courses, cemeteries, railroad yards, airports, sanitary landfills, sewage treatment plants, and water-control structures.

Prime farmland soils commonly receive an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable, and the level of acidity or alkalinity and the content of salts and sodium are acceptable. The soils have few, if any, rocks and are permeable to water and air. They are not excessively erodible or saturated with water for long periods, and they are not frequently flooded during the growing season or are protected from flooding. Slopes range mainly from 0 to 6 percent.

Soils that have a high water table, are subject to flooding, or are droughty may qualify as prime farmland where these limitations are overcome by drainage measures, flood control, or irrigation. Onsite evaluation is necessary to determine the effectiveness of corrective measures. More information about the criteria for prime farmland can be obtained at the local office of the Natural Resources Conservation Service.

A recent trend in land use has been the conversion of prime farmland to urban and industrial uses. The loss of prime farmland to other uses puts pressure on lands that are less productive than prime farmland.

About 5,597 acres, or nearly 0.2 percent of the survey area, would meet the requirements for prime farmland if an adequate and dependable supply of irrigation water were available.

The map units in the survey area that meet the requirements for prime farmland are listed under "Prime Farmland Map Units." On some soils included in the list, measures that overcome limitations are needed. The location of each map unit is shown on the detailed soil maps at the back of this publication. This list does not constitute a recommendation for a particular land use.

Unique Farmland

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops. It has the special combination of soil qualities, location, growing season, and moisture supply needed for the economic production of sustained high yields of a specific high-quality crop when treated and managed by acceptable farming methods. Examples of such crops are citrus, tree nuts, olives, cranberries, and vegetables.

Unique farmland is used for a specific high-value food or fiber crop; has an adequate supply of available moisture for the specific crop because of stored moisture, precipitation, or irrigation; and has a combination of soil qualities, growing season, temperature, humidity, air drainage, elevation, aspect, and other factors, such as nearness to markets, that favor the production of a specific food or fiber crop.

Lists of unique farmland are developed as needed in cooperation with conservation districts and other entities. There are presently no soils recognized as unique farmland in Nevada.

Additional Farmland of Statewide Importance

Some areas other than areas of prime and unique farmland are of statewide importance in the production of food, feed, fiber, forage, and oilseed crops. The criteria used in defining and delineating these areas are determined by the appropriate State agency or agencies. Generally, additional farmland of statewide importance includes areas that nearly meet the criteria for prime farmland and that economically produce high yields of crops when treated and managed by acceptable farming methods. Some areas can produce as high a yield as areas of prime farmland if conditions are favorable. In some states additional farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

Nevada has designated any farmland that is irrigated to be of statewide importance.

Prime Farmland Map Units

The following map units are prime farmland where irrigated with an adequate and dependable water supply:

- 790 Rio King loam
- 964 Zevadez loam, 2 to 4 percent slopes

The soils in Humboldt County typically have high salinity and sodicity which are restrictive to plant growth. Proper management to reduce the salinity and sodicity in the soil can alter the chemical properties of many soils so that they also will rate as prime farmland. The following map units may meet the soil requirements for prime farmland if reclaimed by reducing salinity and sodicity and they are irrigated:

- 231 Dun Glen very fine sandy loam, 2 to 4 percent slopes
- 233 Dun Glen very fine sandy loam, 0 to 2 percent slopes
- 360 Needle Peak silt loam
- 403 Orovada fine sandy loam, 0 to 2 percent slopes
- 407 Orovada loam, 0 to 2 percent slopes
- 453 Kingsriver loam, drained, 0 to 2 percent slopes
- 461 Rad fine sandy loam, 0 to 2 percent slopes
- 462 Ran fine sandy loam, 2 to 4 percent slopes
- 470 Raglan silt loam, 0 to 2 percent slopes
- 480 Rebel loam, 0 to 2 percent slopes
- 487 Rebel fine sandy loam, 0 to 2 percent slopes
- 503 Enko very fine sandy loam, 0 to 2 percent slopes
- 564 Sonoma silt loam, drained
- 600 Valmy fine sandy loam, 0 to 2 percent slopes
- 606 Valmy loam, 0 to 2 percent slopes
- 614 Weso silt loam, moderately saline, 0 to 2 percent slopes
- 615 Weso fine sandy loam, 0 to 2 percent slopes
- 617 Weso loam, 2 to 4 percent slopes
- 618 Weso-Kelk association
- 619 Weso-Rebel complex, 0 to 2 percent slopes
- 640 Clementine silt loam, drained
- 732 Kelk association
- 734 Kelk silt loam, occasionally flooded, 0 to 2 percent slopes
- 773 Broyles very fine sandy loam, moderately saline, 0 to 2 percent slopes
- 774 Broyles very fine sandy loam, 0 to 2 percent slopes
- 791 Rio King loam, slightly saline
- 960 Zevadez-Wieland-Kelk association
- 1020 Wholan very fine sandy loam, 0 to 2 percent slopes
- 1025 Wholan silt loam, 0 to 2 percent slopes
- 1060 Paranat silty clay loam, drained

1192 Enko fine sandy loam, 2 to 4 percent slopes
 1194 Enko loam, 0 to 2 percent slopes
 1211 Cresal silt loam, 0 to 2 percent slopes
 1600 Clurde loam, 0 to 2 percent slopes
 1620 Weso very fine sandy loam, 2 to 4 percent slopes
 1621 Weso-Wholan complex
 1630 Bliss loam, 0 to 2 percent slopes
 1631 Bliss very fine sandy loam, 0 to 2 percent slopes

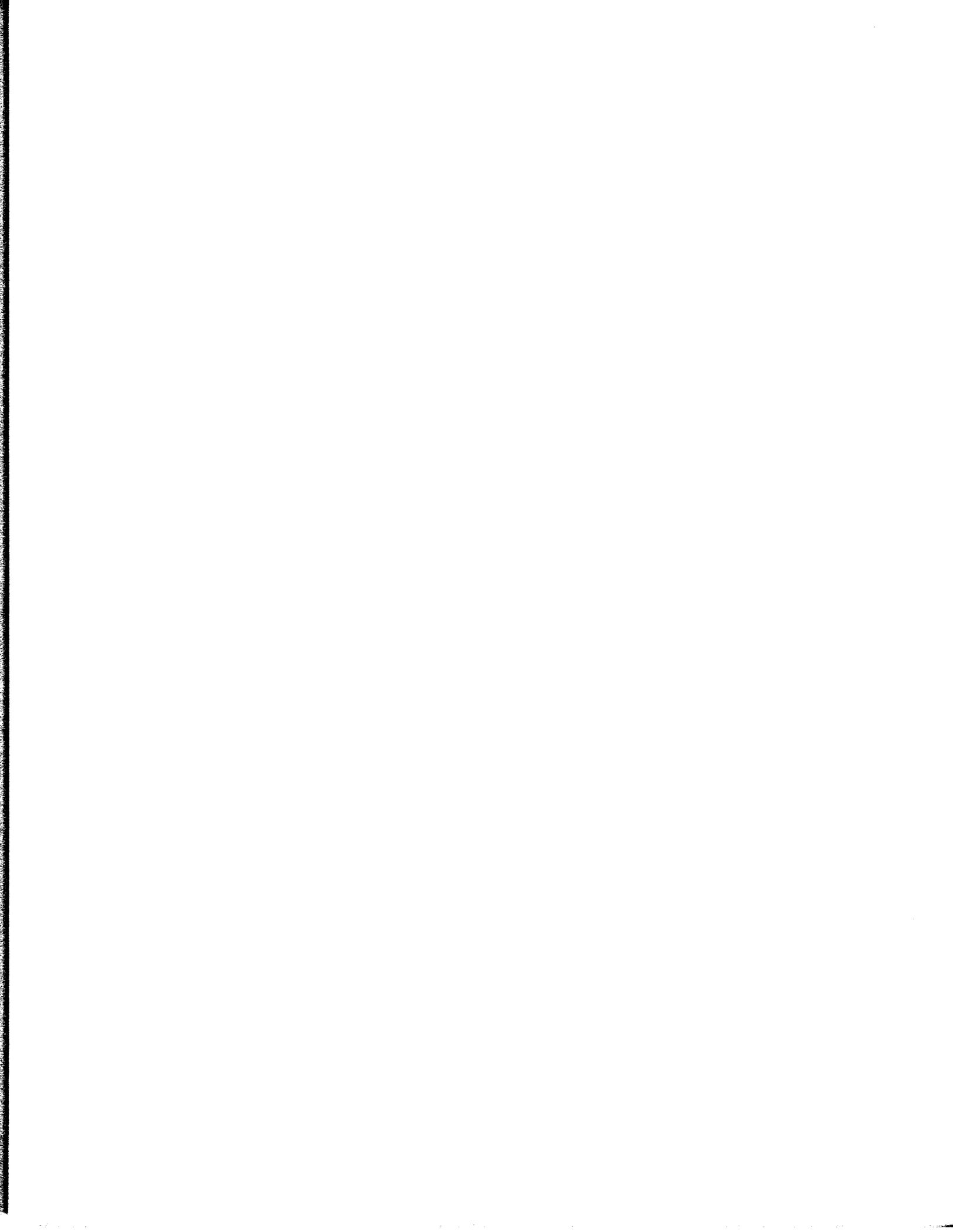
The following map units have a water table that exists within the root zone of most crops. If the water table is lowered, these soils would meet the requirement for prime farmland if they are irrigated:

321 Humboldt silty clay loam
 490 Rose Creek loam

641 Clementine, drained-Paranat complex
 1061 Paranat silt loam
 1066 Paranat very fine sandy loam

The following map units have a water table that exists within the root zone of most crops and have high salinity and sodicity which are restrictive to plant growth. If the water table is lowered and proper management used to reduce the salinity and sodicity in the soil they also may rate as prime farmland if irrigated:

452 Kingsriver loam, 0 to 2 percent slopes
 562 Sonoma silty clay loam, occasionally flooded
 641 Clementine, drained-Paranat complex
 642 Clementine-Rose Creek association
 646 Clementine-Paranat complex



Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories. 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, "Classification of the Soils," in Part II of this Publication shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Eleven 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 Xeroll (*Xer, meaning xeric, plus oll, from Mollisol*).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Argixeroll. (*Argi, meaning presence of argillic horizon, plus xeroll, the suborder of the Mollisols that have a xeric moisture regime*).

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

name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Argixerolls.

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

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

Taxonomic Units and Their Morphology

In this section, each taxonomic unit recognized in the survey area is described. The descriptions are arranged in alphabetical order.

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 unit in the survey area is described. The detailed description of each soil horizon follow standards in the "Soil Survey Manual"(19). Many of the technical terms used in the descriptions are defined in "Soil Taxonomy"(20). Unless otherwise stated, colors in the descriptions are for dry soil. Following the pedon description is the range of important characteristics of the soils in the unit.

The map units of each taxonomic unit are described in the section "Detailed Soil Map Units".

Acrelane series

The Acrelane series consists of shallow, well drained soils that formed in residuum and colluvium from granodiorite. Acrelane soils are on mountains. Slopes are 15 to 50 percent. The mean annual precipitation is about 10 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Loamy-skeletal, mixed, mesic, shallow Aridic Argixerolls

Typical pedon: Acrelane very stony sandy loam, 15 to 50 percent slopes, in an area of map unit 1500. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles, 15 percent cobbles and 7 percent stones.

A1--0 to 2 inches; brown (10YR 5/3) very stony sandy loam, dark brown (10YR 3/3) moist; moderate thin platy structure; soft, very friable, nonsticky and nonplastic; many very fine roots; many very fine interstitial and tubular pores; 20 percent pebbles, 15 percent cobbles and 7 percent stones; neutral; abrupt smooth boundary.

A2--2 to 4 inches; brown (10YR 5/3) very gravelly sandy loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and common fine roots; many very fine interstitial and tubular pores; 30 percent pebbles, 10 percent cobbles, and 3 percent stones; neutral; abrupt wavy boundary.

Bt--4 to 10 inches; brown (10YR 5/3) very gravelly sandy clay loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, common fine, and medium roots; common very fine tubular pores; common thin clay films on faces of peds; 55 percent pebbles; neutral; abrupt wavy boundary.

Cr--10 inches; fractured decomposed granodiorite; difficult to dig with hand tools.

Type location: Humboldt County, Nevada; about 5 miles south of Disaster Peak; about 900 feet east and 1,300 feet south of the northwest

corner of section 7, T. 46 N., R. 34 E.; (41 degrees, 53 minutes, 07 seconds north latitude and 118 degrees, 12 minutes, 05 seconds west longitude.)

Range in characteristics:

Soil moisture: These soils are usually dry but are moist in the winter and spring.

Soil temperature: 47 to 53 degrees F.

Mollic epipedon thickness: 7 to 12 inches.

Depth to paralithic contact: 10 to 20 inches.

Control section:

Rock fragments--35 to 60 percent, mainly pebbles.

Clay content--18 to 30 percent

A horizons:

Hue--10YR or 7.5YR.

Value--4 to 6 dry, 2 or 3 moist.

Chroma--2 or 3.

Reaction--Medium acid to neutral.

Bt horizon:

Hue--5YR, 7.5YR or 10YR.

Value--4 or 5 dry, 3 or 4 moist.

Chroma--3 to 6.

Texture--Very gravelly sandy clay loam, very gravelly coarse sandy loam, very gravelly sandy loam.

Clay content--18 to 30 percent.

Rock fragments--35 to 60 percent, mainly pebbles.

Reaction--Neutral or slightly alkaline.

Consistence--Slightly hard or hard dry; very friable or friable moist; slightly sticky or sticky and slightly plastic or plastic, wet.

Structure--Subangular blocky or is massive.

Adelaide series

The Adelaide series consists of shallow to a duripan, well drained soils that formed in mixed alluvium with a mantle of loess high in volcanic ash. The Adelaide soils are on fan remnants. Slopes are 2 to 8 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow Entic Durorthids

Typical pedon: Adelaide silt loam, 2 to 8 percent

slopes, in an area of map unit 110. (Colors are for dry soil unless otherwise noted.)

- A--0 to 3 inches; light gray (10YR 7/2) silt loam, dark grayish brown (10YR 4/2) moist; moderate thick platy structure; soft, very friable, nonsticky and nonplastic; common very fine and fine roots; common very fine and fine vesicular pores; slightly alkaline; abrupt smooth boundary.
- Bw--3 to 9 inches; light gray (10YR 7/2) very fine sandy loam, brown (10YR 4/3) moist; moderate medium platy structure; slightly hard, very friable, nonsticky and slightly plastic; common very fine, fine, medium and few very fine tubular pores; slightly alkaline; clear smooth boundary.
- Bq--9 to 11 inches; light gray (10YR 7/2) very fine sandy loam, brown (10YR 4/3) moist; massive; hard, firm and brittle, nonsticky and nonplastic; common very fine and fine vesicular pores; continuous brittle matrix; strongly alkaline; abrupt smooth boundary.
- Bqkm--11 to 16 inches; pale brown (10YR 6/3) strongly cemented duripan, dark yellowish brown (10YR 4/4) moist; massive; extremely hard, slightly rigid; few very fine and fine roots, mainly in fractures and between plates; few very fine tubular pores; lime is disseminated; slightly effervescent; strongly alkaline; clear smooth boundary.
- Btqkb--16 to 22 inches; yellowish brown (10YR 5/4) clay loam, dark yellowish brown (10YR 4/6) moist; massive; slightly hard, firm, slightly sticky and slightly plastic; few very fine roots; few very fine tubular pores; 25 percent very hard and firm durinodes and lenses; few thin clay films on faces of peds and lining pores; few fine soft filaments of lime; violently effervescent; very strongly alkaline; clear wavy boundary.
- 2Bqkb--22 to 28 inches; very pale brown (10YR 7/3) gravelly loam, brown (10YR 4/3) moist; massive; hard, friable, slightly sticky and slightly plastic; few very fine roots; few very fine tubular and common very fine interstitial pores; 20 percent very hard and firm durinodes; common fine soft filaments of lime; strongly effervescent; 15 percent pebbles; strongly alkaline; clear wavy boundary.
- 3Bqkm--28 to 35 inches; very pale brown (10YR 7/3) indurated duripan with many thin laminar caps and lenses mainly in the upper part with discontinuous thin strata of very gravelly sand

- between plates in the lower part, yellowish brown (10YR 5/4) moist; massive; very rigid; few very fine roots; few very fine tubular pores; many moderately thick white (10YR 8/2) lime and silica pendants on pebbles; common thick and moderately thick lime filaments; violently effervescent; 35 percent pebbles; very strongly alkaline (pH 8.8); gradual wavy boundary.
- 4Bqk--35 to 60 inches; very pale brown (10YR 7/3) extremely gravelly loamy sand, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine roots; common very fine interstitial pores; about 10 percent weakly silica cemented lenses; few thin lime and silica pendants on pebbles; strongly effervescent; 60 percent pebbles; strongly alkaline (pH 8.6).

Type location: Humboldt County, Nevada; about 2 miles south of Paradise Junction; about 1,800 feet south and 1,800 feet east of the northwest corner of section 15, T. 39 N., R. 38 E.; (41 degrees, 15 minutes, 39 seconds north latitude and 117 degrees, 41 minutes, 21 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry early June through October.

Soil temperature: 49 to 53 degrees F.

Depth to duripan: 10 to 15 inches.

Depth to buried indurated pan: 26 to 40 inches.

Control section:

Clay content--6 to 18 percent.

Rock fragments--Up to 15 percent.

Other features--Silt plus very fine sand ranges from 65 to 80 percent.

A horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bw horizon:

Value--4 or 5 moist

Chroma--2 or 3.

Consistence--Very friable or friable, moist, nonplastic or slightly plastic wet.

Structure--Massive or weak fine or medium subangular blocky or thin to thick platy structure in some pedons.

Texture--Loam, silt loam or very fine sandy loam.
Other features--This is considered a cambic horizon when its base is below 10 inches.

Bq horizon:

Chroma--2 or 3.
Consistence--Slightly hard, hard or very hard dry; very friable, friable or firm moist; nonplastic or slightly plastic wet.
Structure--Platy or is massive.
Texture--Loam, silt loam or very fine sandy loam.

Bqkm horizon:

Chroma--2 through 4.
Structure--Platy or is massive.
Consistence--Very hard or extremely hard.
Other features--Lime coatings on 10 to 30 percent of the faces of peds and on silica laminae or is disseminated. The matrix is slightly effervescent to strongly effervescent.

Btqkb horizon:

Value--5 or 6 dry, 4 or 5 moist.
Chroma--3 through 6
Clay content--27 to 40 percent.
Rock fragments--Up to 5 percent.
Structure--Moderate or strong, fine or medium, subangular blocky or is massive.
Reaction--Moderately alkaline or very strongly alkaline.
Other features--Strongly effervescent or violently effervescent. Up to 50 percent of the various horizons of the buried soil have white lime coatings on silica laminae, faces of peds or pebbles; very hard and firm durinodes are in some pedons.

3Bqkm horizon:

Chroma--2 through 4.
Structure--Moderate or strong, thin or medium, platy or is massive.
Thickness--1/8 to 6 inches laminated strata separated by less strongly cemented materials.
Other features--Weakly silica cemented lenses and silica pendants on pebbles are in some pedons.

4Bk horizon:

Structure--Massive or is single grain

Consistence--Slightly hard dry, very friable moist or is loose.
Rock fragments--15 to 80 percent, mainly pebbles.

Alyan series

The Alyan series consists of moderately deep, well drained soils that formed in residuum and colluvium from volcanic rocks. Alyan soils are on plateaus and mountains. Slopes are 2 to 50 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Fine, montmorillonitic, frigid Aridic Argixerolls

Typical pedon: Alyan stony loam, 15 to 50 percent slopes, in an area of map unit 100. (Colors are for dry soils unless otherwise noted.) The soil surface is partially covered with 10 percent pebbles, 5 percent cobbles, and 2 percent stones.

A1--0 to 3 inches; grayish brown (10YR 5/2) stony loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine interstitial pores; 10 percent pebbles, 5 percent cobbles and 2 percent stones; neutral; abrupt smooth boundary.

A2--3 to 8 inches; grayish brown (10YR 5/2) cobbly loam, very dark grayish brown (10YR 3/2) moist; moderate 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 and interstitial pores; 15 percent pebbles and 10 percent cobbles; neutral; abrupt smooth boundary.

A3--8 to 17 inches; grayish brown (10YR 5/2) very cobbly clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine, fine, and common medium roots; many very fine and common fine tubular and interstitial pores; 15 percent pebbles and 20 percent cobbles; slightly alkaline; abrupt smooth boundary.

Bt1--17 to 24 inches; pale brown (10YR 6/3)

gravelly clay, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; hard, friable, sticky and plastic; common very fine, fine and medium roots; many very fine tubular and interstitial pores; common thin clay films on faces of peds and lining pores; 25 percent pebbles and 5 percent cobbles; neutral; clear smooth boundary.

Bt2--24 to 34 inches; pale brown (10YR 6/3) gravelly clay, dark brown (10YR 3/3) moist; strong fine subangular blocky structure; hard, friable, sticky and plastic; common very fine through medium roots; many very fine tubular and interstitial pores; common thin clay films on faces of peds and lining pores; 25 percent pebbles; neutral; clear smooth boundary.

Bt3--34 to 39 inches; light yellowish brown (10YR 6/4) clay, dark yellowish brown (10YR 4/4) moist; strong fine subangular blocky structure; hard, firm, sticky and plastic; common very fine and fine roots; common very fine tubular and interstitial pores; common thin clay films on faces of peds and lining pores; 10 percent pebbles; neutral; clear smooth boundary.

R--39 inches; hard tuff; a thin cap of weathered rock overlies the bedrock surface.

Type location: Humboldt County, Nevada; about 400 feet west and 2,400 feet north of the southeast corner of section 27, T. 44 N., R. 41 E.; (41 degrees, 39 minutes, 48 seconds north latitude and 117 degrees, 19 minutes, 37 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry from mid-June to mid-October.

Soil temperature: 44 to 47 degrees F.

Mollic epipedon thickness: 8 to 18 inches thick, and commonly includes the upper part of the argillic horizon.

Depth to bedrock: 20 to 40 inches.

Thickness of the A & Bt horizons: 20 to 40 inches.

Control section:

Clay content--40 to 55 percent.

Rock fragments--Average 15 to 35 percent, mainly pebbles.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bt horizons:

Hue--10YR or 7.5YR.

Value--5 through 7 dry, 3 through 5 moist, with darker value common only to the upper subhorizon.

Chroma--2 through 4.

Texture--Clay or gravelly clay with thin subhorizons of very gravelly clay overlying the bedrock common in most pedons. Thin gravelly clay loam subhorizons are common in some pedons.

Structure--Subangular blocky or is massive.

Consistence--Friable or firm, moist; sticky or very sticky and plastic or very plastic, wet.

Reaction--Neutral or slightly alkaline.

Anawalt series

The Anawalt series consists of shallow, well drained soils that formed in residuum from volcanic rocks with additions of loess and volcanic ash. The Anawalt soils are on plateaus, hills, and mountains. Slopes are 4 to 50 percent. The mean annual precipitation is about 11 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Clayey, montmorillonitic, frigid Lithic Xerollic Haplargids

Typical pedon: Anawalt cobbly loam, 4 to 15 percent slopes, in an area of map unit 101. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 15 percent pebbles and 15 percent cobbles.

A1--0 to 2 inches; light brownish gray (10YR 6/2) cobbly loam, dark grayish brown (10YR 4/2) moist; moderate thin platy structure; soft, friable, slightly sticky and slightly plastic; common very fine roots; many very fine interstitial pores; 15 percent pebbles and 15 percent cobbles; neutral; abrupt smooth boundary.

A2--2 to 4 inches; grayish brown (10YR 5/2) loam, dark brown (10YR 3/3) moist; moderate thin platy structure; soft, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine interstitial pores; 10 percent pebbles and 2 percent cobbles; neutral; abrupt smooth boundary.

Bt1--4 to 7 inches; light brownish gray (10YR 6/2)

clay loam, dark brown (10YR 3/3) moist; moderate fine angular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine roots; common very fine and fine tubular pores; common thin clay films on face of peds and lining pores; 10 percent pebbles; neutral; abrupt wavy boundary.

Bt2--7 to 12 inches; yellowish brown (10YR 5/4) clay, dark yellowish brown (10YR 3/4) moist; strong fine angular blocky structure; hard, firm, very sticky and very plastic; common very fine and fine roots; common very fine and fine interstitial and tubular pores; common moderately thick clay films on face of peds and lining pores; 10 percent pebbles; neutral; abrupt smooth boundary.

Btq--12 to 16 inches; brown (7.5YR 5/4) gravelly clay, dark brown (7.5YR 4/4) moist; strong fine angular blocky structure; hard, firm, very sticky and very plastic; common very fine and fine roots; common very fine tubular pores; many moderately thick pressure faces; many white (N 8/0) moderately thick silica pendants on rock fragments; 25 percent pebbles and 5 percent cobbles; neutral; abrupt smooth boundary.

R--16 inches; hard fractured andesite bedrock.

Type location: Humboldt County, Nevada; approximately 1 mile south of Goosey Lake Flat; about 700 feet south and 100 feet east of the northwest corner of section 33, T.45 N., R.41 E.; (41 degrees, 44 minutes, 33 seconds north latitude and 117 degrees, 21 minutes, 50 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist between depth of 4 to 12 inches for 60 days or more out of the 120 days following the winter solstice and are moist more than 114 of the time that the soil temperature is 41 degrees or more.

Soil temperature: 42 to 47 degrees F.

Depth to bedrock: 12 to 20 inches.

Control section:

Rock fragments--Range from 5 to 35 percent.

Reaction--Neutral to moderately alkaline.

Other features--There is an abrupt clay increase between the A and Bt horizon, the clay increase is 15 to 25 percent absolute.

A horizons:

Value--5 or 6 dry; 2 through 4 moist.

Chroma--2 through 4. When the upper 7 inches of the epipedon is mixed, the dry value is 6.

Bt horizons:

Hue--10YR or 7.5YR.

Value--3 through 6 dry, 3 or 4 moist.

Chroma--2 through 4 dry and moist.

Texture--Silty clay, clay, silty clay loam or clay loam with an average of 35 to 60 percent clay.

Lower subhorizons--Clay loam or silty clay loam.

Silica accumulation--Secondary accumulation of silica as pendants on rock fragments in some pedons.

Consistence--Firm or very firm. Subhorizons are friable.

Other features--Bedrock is fractured with carbonates or opal on the lower side of rock fragments in some pedons.

Argenta series

The Argenta series consists of very deep, somewhat poorly drained soils that formed in loamy alluvium from mixed rock sources high in pyroclastic materials. Argenta soils are on alluvial flats, inset fans and basin floor remnants. Slopes are 0 to 2 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Coarse-loamy, mixed (calcareous), mesic Aeric Halaquepts

Typical pedon: Argenta fine sandy loam, in an area of map unit 1050. (Colors are for dry soil unless otherwise noted.)

A1--0 to 4 inches; white (10YR 8/2) fine sandy loam, brown (10YR 5/3) moist; moderate thin and medium platy structure; slightly hard, friable, nonsticky and slightly plastic; common very fine roots; many very fine and fine vesicular pores; violently effervescent; very strongly alkaline; abrupt wavy boundary.

A2--4 to 13 inches; white (10YR 8/2) very thin sandy loam, brown (10YR 5/3) moist; moderate very fine platy structure; slightly hard, friable, nonsticky and slightly plastic; common very fine, fine and medium roots; many very fine tubular pores; violently effervescent; very strongly alkaline; abrupt smooth boundary.

BA--13 to 21 inches; light gray (10YR 7/2) fine sandy loam, dark yellowish brown (10YR 4/4) moist; massive, slightly hard, very friable, nonsticky and nonplastic; common very fine, fine, and few medium roots; many very fine interstitial pores; 5 percent weakly cemented durinodes; violently effervescent; 5 percent pebbles; very strongly alkaline; clear smooth boundary.

Cqk1--21 to 31 inches; light gray (10YR 7/2) fine sandy loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, nonsticky and slightly plastic; common very fine roots; common very fine tubular and interstitial pores; 50 percent weakly cemented durinodes and thin plate like nodules in a friable matrix; common fine white (10YR 8/2) soft filaments and masses of lime; violently effervescent; 5 percent pebbles; strongly alkaline; clear smooth boundary.

Cqk2--31 to 60 inches; white (10YR 8/2) stratified fine sandy loam with thin strata of loamy sand and sand, light yellowish brown (10YR 6/4) moist, common very fine distinct brownish yellow (10YR 6/6) mottles, yellowish brown (10YR 5/6) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine tubular and interstitial pores; 50 percent weakly cemented durinodes and thin plate like nodules in a friable matrix; common coarse white (10YR 8/1) soft masses of lime; violently effervescent; strongly alkaline; clear smooth boundary.

Type location: Humboldt County, Nevada; approximately 6 miles north of the Mote siding near the Lander County line; about 2,500 feet north and 1,500 feet west of the southeast corner section 16, T. 34 N., R. 44 E.; (40 degrees, 49 minutes, 21 seconds north latitude and 117 degrees, 01 minute, 15 seconds west longitude.)

Range in characteristics:

Soil moisture: A seasonal water table is at depths of 32 to 40 inches at some time during the months of February to July.

Soil temperature: 47 to 52 degrees F.

Depth to Cqk horizon: 12 to 24 inches.

Reaction: Moderately alkaline to very strongly alkaline.

Relict mottles: Present in the upper profile of some pedons.

Salinity and sodicity: Slightly to strongly salt and strongly sodium affected to depths of 24 to 30 inches decreasing with depth. The exchangeable sodium percent ranges from 15 to 70 in half or more of the upper 15 inches and decreases with depth.

Other features: Unconformable strata of loamy fine sand, fine sand, gravelly or very gravelly sand or very coarse sand are below depth of 40 inches in some pedons.

Control section:

Clay content--8 to 18 percent.

Rock fragments--Up to 15 percent pebbles.

A and BA horizons:

Value--6 through 8 dry, 4 or 5 moist.

Chroma--2 through 4.

Reaction--Strongly alkaline or very strongly alkaline.

Cqk horizons:

Hue--10YR or 7.5YR.

Value--6 through 8 dry, 4 through 6 moist.

Texture--Stratified very fine sandy loam, fine sandy loam, silt loam or loam with thin strata of loamy sand and sand.

Consistence--Friable or very friable, moist, nonplastic or slightly plastic, wet.

Chroma--2 through 4.

Other features--These horizons have 15 to 70 percent durinodes in a friable matrix.

Atlow series

The Atlow series consists of shallow, well drained soils that formed in residuum from chert, argillite, shale, andesite and altered rhyolitic tuff. Atlow soils are on mountains. Slopes are 4 to 50 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Loamy-skeletal, mixed, mesic Lithic Xerollic Haplargids

Typical pedon: Atlow very gravelly loam, 30 to 50 percent slopes, in an area of map unit 701. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 45 percent pebbles and 10 percent cobbles.

A--0 to 4 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 4/3) moist;

moderate fine platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common fine roots; common fine tubular pores; 45 percent pebbles and 10 percent cobbles; slightly alkaline; clear smooth boundary.

Bt1--4 to 9 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common fine and medium roots; common fine tubular pores; few thin clay films on faces of peds; 30 percent pebbles and 10 percent cobbles; moderately alkaline; clear smooth boundary.

Bt2--9 to 14 inches; light yellowish brown (10YR 6/4) very cobbly clay loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; hard, friable, sticky and plastic; common fine roots; common fine tubular pores; common thin clay films on cobbles and few thin clay films on faces of peds; few thin lime pendants on rock fragments in the lower part; 20 percent pebbles and 30 percent cobbles; moderately alkaline; abrupt smooth boundary.

R--14 inches; chert and argillite bedrock.

Type location: Humboldt County, Nevada; about 2 miles southwest of Golconda Summit in the Edna Mountains; about 330 feet east and 550 feet south of the northwest corner of section 30, T. 35 N., R. 41 E.; (40 degrees, 53 minutes, 00 seconds north latitude and 117 degrees, 24 minutes, 46 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist mid fall through spring, dry summer through early fall.

Soil temperature: 48 to 52 degrees F.

Solum thickness: 14 to 20 inches.

Depth to bedrock: 14 to 20 inches.

A horizon:

Value--6 or 7 dry, 3 through 5 moist.

Chroma--2 or 3.

Reaction--Slightly alkaline or moderately alkaline.

Bt horizons:

Value--5 through 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Very gravelly clay loam, very cobbly clay loam, or very gravelly sandy clay loam. Clay content--27 to 35 percent.

Rock fragments--35 to 50 percent, dominantly pebbles and cobbles.

Structure--Angular blocky or subangular blocky.

Reaction--Moderately alkaline or strongly alkaline.

Carbonates--The matrix is noncalcareous. Thin lime coatings are on the underside of rock fragments.

Consistence--Slightly hard or hard, slightly sticky or sticky, slightly plastic or plastic.

Aycab series

The Aycab series consists of moderately deep, well drained soils that formed in residuum from granite. Aycab soils are on mountains. Slopes are 30 to 75 percent. The mean annual precipitation is about 16 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Coarse-loamy, mixed Pachic Cryoborolls

Typical pedon: Aycab gravelly coarse sandy loam, 30 to 50 percent slopes, in an area of map unit 1331. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles.

A1--0 to 2 inches; dark grayish brown (10YR 4/2) gravelly coarse sandy loam, black (10YR 2/1) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine roots; many very fine interstitial pores; 20 percent pebbles; slightly acid; abrupt smooth boundary.

A2--2 to 5 inches; dark grayish brown (10YR 4/2) gravelly coarse sandy loam, black (10YR 2/1) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine and common fine roots; many very fine and fine interstitial pores; 15 percent pebbles; neutral; clear wavy boundary.

A3--5 to 13 inches; dark grayish brown (10YR 4/2) gravelly coarse sandy loam, black (10YR 2/1) moist; moderate fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine, common fine, and medium roots; many very fine and fine

interstitial and tubular pores; 15 percent pebbles; neutral; clear wavy boundary.

A4--13 to 18 inches; brown (10YR 4/3) gravelly coarse sandy loam, very dark brown (10YR 2/2) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine, common fine, and medium roots; many very fine and fine interstitial and tubular pores; 25 percent pebbles; neutral; clear wavy boundary.

Bw--18 to 24 inches; brown (10YR 4/3) very gravelly coarse sandy loam, very dark brown (10YR 2/2) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine and fine roots; common very fine and fine interstitial and tubular pores; 50 percent pebbles; neutral; abrupt wavy boundary.

Cr--24 inches; granitic grus

Type location: Humboldt County, Nevada; about 1/2 mile north of Raster Creek in the Bilk Creek Mountains; about 600 feet west and 1,500 feet north of the southeast corner of section 34, T. 47 N., R. 32 E.; (41 degrees, 54 minutes, 22 seconds north latitude and 118 degrees, 21 minutes, 52 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry late July through early October.

Soil temperature: 43 to 47 degrees F.

Average summer soil temperature: 55 to 59 degrees F.

Mollic epipedon thickness: 20 to 40 inches (may or may not include Bw horizon)

Reaction of profile: Slightly acid or neutral.

Depth to paralithic contact: 24 to 40 inches.

Control section:

Clay content--8 to 18 percent.

Rock fragments--15 to 35 percent, predominantly 2 to 5 millimeter size pebbles.

A horizons:

Value--3 or 4 dry, 2 or 3 moist.

Chroma--1 through 3 with chroma of 1 occurring predominantly in the A1 or A2 horizons and chroma of 3 occurring in the A3 horizon and below.

Bw horizon:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 through 4.

Structure--Subangular blocky or is massive.

Texture--Typically coarse sandy loam, but strata of sandy loam or loam are allowable.

Consistence--Soft or slightly hard dry.

Other features--Mixed colors are common in this horizon due to root and rodent activity. The Bw horizon may or may not meet the requirements of a cambic horizon.

Barnard series

The Barnard series consists of moderately deep to a duripan, well drained soils that formed in alluvium mainly from mixed rock sources. Barnard soils are on fan remnants. Slopes are 4 to 30 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Fine, montmorillonitic, mesic Aridic Durixerolls

Typical pedon: Barnard loam, 4 to 15 percent slopes, in an area of map unit 911. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 5 percent pebbles.

A1--0 to 2 inches; grayish brown (10YR 5/2) loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine and few fine tubular and interstitial pores; 5 percent pebbles; neutral; clear smooth boundary.

A2--2 to 7 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky and granular structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine, few fine and medium roots; common very fine, fine, medium and coarse tubular and interstitial pores; 5 percent pebbles; neutral; clear smooth boundary.

AB--7 to 11 inches; grayish brown (10YR 5/2) clay loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky and granular structure; slightly hard, very friable, sticky and plastic; common very fine, few fine and medium roots; common very fine, fine, and few medium tubular pores; 10 percent pebbles

and 3 percent cobbles; neutral; abrupt smooth boundary.

2Bt1--11 to 21 inches; yellowish brown (10YR 5/4) clay, dark yellowish brown (10YR 4/4) moist; strong coarse prismatic structure; very hard, firm, very sticky and very plastic; few very fine, fine and medium roots; few very fine tubular pores; continuous moderately thick clay films on faces of peds; 5 percent pebbles and 2 percent cobbles; neutral; abrupt smooth boundary.

2Bt2--21 to 27 inches; light yellowish brown (10YR 6/4), gravelly clay loam, dark brown (7.5YR 4/4) moist; moderate fine subangular blocky structure; hard, friable, sticky and plastic; few very fine, fine and medium roots; common very fine tubular pores; common moderately thick clay films on faces of peds and lining pores; 10 percent pebbles and 5 percent cobbles; neutral; abrupt clear boundary.

2Bqkm--27 to 40 inches; very pale brown (10YR 7/3) indurated duripan, pale brown (10YR 6/3) moist; massive; 1 to 2 mm laminar cap; strongly effervescent.

3C--40 to 60; very pale brown (10YR 7/4) very gravelly sandy loam, light yellowish brown (10YR 6/4) moist; massive; hard, firm, slightly sticky and slightly plastic; few very fine and fine tubular pores; 35 percent pebbles; strongly alkaline; strongly effervescent.

Type location: Humboldt County, Nevada; near the east fork of the Quinn River in the Santa Rosa Mountains approximately 400 feet east and 1,300 feet north of the southwest corner of section 14, T. 47 N., R. 40 E.; (41 degrees, 57 minutes, and 10 seconds north latitude and 117 degrees, 26 minutes, and 26 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in some part between 4 to 12 inches for as long as 60 consecutive days during the winter months.

Soil temperature: 47 to 53 degrees F.

Depth to duripan: 20 to 40 inches.

Reaction: Range from slightly acid to slightly alkaline.

A horizons:

Value--2 or 3 moist, 4 or 5 dry.

Chroma--2 or 3 moist and dry.

2Bt horizons:

Hue--7.5YR or 10YR,

Value--5 or 6 dry and 3 or 4 moist.

Chroma--2 through 4 dry and moist.

Structure--Weak, moderate, or strong prismatic and moderate or strong subangular blocky.

Texture--Silty clay loam, silty clay, clay, or cobbly clay loam. Subhorizons are gravelly clay.

Clay content--35 to 50 percent.

Rock fragments--0 to 15 percent cobbles and 0 to 10 percent gravel.

Other features--It is calcareous in the lower part in some pedons.

Bqkm horizon:

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 or 3.

Structure--Massive or platy.

Cementation--Silica cemented or lime-silica cemented. The thickness of the cemented horizon ranges from 3 to 24 inches, but generally it is 6 to 10 inches thick. Indurated throughout or indurated in the upper few inches and weakly or strongly cemented below.

3C horizon:

Texture--Stratified, typically very gravelly loam, very gravelly sandy loam or cobbly loam.

Rock fragments--0 to 20 percent cobbles and 10 to 35 percent gravel.

Reaction--Slightly alkaline to strongly alkaline.

Bartome series

The Bartome series consists of shallow to a duripan, well drained soils that formed in alluvium from mixed sources with a thin loess cap. Bartome soils are on fan remnants. Slopes are 0 to 2 percent. Mean annual precipitation is about 9 inches and mean annual temperature is about 47 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow Xerollic Durargids

Typical pedon: Bartome very fine sandy loam, 0 to 2 percent slopes, in an area of map unit 1010. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light brownish gray (10YR 6/2)

very fine sandy loam, brown (10YR 5/3) moist; moderate medium platy structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine and common fine vesicular pores; 2 percent pebbles; moderately alkaline; abrupt smooth boundary.

A2--2 to 6 inches; light brownish gray (10YR 6/2) very fine sandy loam, brown (10YR 5/3) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine vesicular and common very fine tubular pores; 2 percent pebbles; moderately alkaline; abrupt wavy boundary.

Bt--6 to 11 inches; pale brown (10YR 6/3) silty clay loam, yellowish brown (10YR 5/4) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine, few fine and medium roots; common very fine, few fine and medium tubular pores; common moderately thick clay films on faces of peds and lining pores; 10 percent pebbles; neutral; clear wavy boundary.

Bqk--11 to 16 inches; very pale brown (10YR 7/3) gravelly sandy loam, light yellowish brown (10YR 6/4) moist; weak medium platy structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; common very fine tubular and interstitial pores; 30 percent weakly cemented plates; common fine soft masses of lime; violently effervescent; 15 percent pebbles; strongly alkaline; clear wavy boundary.

Bqkm1--16 to 19 inches; very pale brown (10YR 7/3) fractured indurated duripan, light yellowish brown (10YR 6/4) moist; massive; very rigid; few very fine roots; common very fine interstitial pores; common fine soft masses of lime; violently effervescent; strongly alkaline; abrupt smooth boundary.

Bqkm2--19 to 33 inches; very pale brown (10YR 7/3) indurated duripan, light yellowish brown (10YR 6/4) moist; massive; very rigid; 1 to 2 mm laminar cap; violently effervescent; gradual wavy boundary.

Bqkm3--33 to 60 inches; very pale brown (10YR 7/3) strongly cemented duripan, light yellowish brown (10YR 6/4) moist; massive; extremely hard, slightly rigid; few very fine roots; common thick lenses and strata of weakly cemented extremely gravelly sand; strongly effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; about 2.5 miles south of the northeast corner of Humboldt County in an unsectionized area; (41 degrees, 57 minutes, 57 seconds north latitude and 117 degrees, 00 minutes, 34 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring; dry in summer and early autumn.

Soil temperature: 47 to 51 degrees F.

Depth to base of Bt horizon: 10 to 14 inches.

Reaction: Neutral to strongly alkaline in solum.

Depth to indurated duripan: 14 to 20 inches.

Depth to bedrock: Greater than 60 inches.

Control section:

Clay content-- After mixing the clay content average 18 to 35 percent.

Rock fragments--0 to 15 percent, mainly pebbles.

A horizons:

Value--5 or 6 dry; 4 or 5 moist.

Chroma--2 through 4.

Bt horizon:

Value--5 or 6 dry, 4 or 5 moist.

Chroma--3 or 4.

Clay content--27 to 35 percent.

Structure--Weak or moderate, fine, medium or coarse subangular blocky.

Consistence--Friable or firm moist.

Bqk horizon:

Value--6 or 7 dry, 4 through 6 moist.

Chroma--3 or 4.

Texture--Silt loam, loam, silty clay loam or sandy loam.

Rock fragments--5 to 25 percent.

Consistence--Slightly hard or hard dry, friable or firm moist, slightly sticky or sticky and slightly plastic or plastic wet.

Batan series

The Batan series consists of very deep, moderately well drained soils that formed in silty alluvium from mixed rock sources of mostly volcanic origin that are high in loess and pyroclastic materials. Batan soils are on alluvial flats. Slopes are 0 to 2 percent. The mean annual precipitation is about 7

inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Fine-silty, mixed (calcareous), mesic Durorthidic Torriorthents

Typical pedon: Batan very fine sandy loam, 0 to 2 percent slopes, in an area of map unit 810. (Colors are for dry soil unless otherwise noted.)

A--0 to 4 inches; pale brown (10YR 6/3) very fine sandy loam, brown (10YR 4/3) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; few fine roots; few fine tubular and many fine vesicular pores; strongly effervescent; strongly alkaline; clear smooth boundary.

A2--4 to 9 inches; pale brown (10YR 6/3) silt loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common fine roots; common fine tubular pores; strongly effervescent; very strongly alkaline; clear smooth boundary.

Bq--4 to 16 inches; pale brown (10YR 6/3) silt loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common fine roots; common fine tubular pores; 5 percent durinodes; strongly effervescent; very strongly alkaline; clear smooth boundary.

Bqk1--16 to 26 inches; pale brown (10YR 6/3) silt loam, dark yellowish brown (10YR 4/4) moist; few fine faint brown (7.5YR 5/4) mottles; massive; hard, firm, slightly sticky and slightly plastic; few fine roots; many fine tubular pores; 25 percent durinodes; few very fine lime filaments; violently effervescent; very strongly alkaline; gradual smooth boundary.

Bqk2--26 to 43 inches; light yellowish brown (10YR 6/4) silt loam, dark yellowish brown (10YR 4/4) moist; few fine distinct brown (7.5YR 5/4) mottles; massive; hard, firm, slightly sticky and slightly plastic; few fine roots; common fine tubular pores; 25 percent durinodes; lime is disseminated; few very fine gypsum filaments; strongly effervescent; very strongly alkaline; abrupt smooth boundary.

Bqk3--43 to 60 inches; very pale brown (10YR 7/4) silt loam, yellowish brown (10YR 5/4) moist; common fine distinct brown (7.5 YR 5/4) mottles; massive; hard, firm, slightly sticky and slightly plastic; 70 percent discontinuous

weakly silica cemented; lime is disseminated; strongly effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; in Pumpnickel Valley; about 2,000 feet south and 1,200 feet west of the northeast corner of section 15, T. 34 N., R. 41 E.; (40 degrees, 49 minutes, 25 seconds north latitude and 117 degrees, 20 minutes, 34 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry in late May through early November. There is a water table influence at depths immediately below 60 inches.

Soil temperature: 47 to 53 degrees F.

Depth to Bq or Bqk horizon: 9 to 24 inches.

Salt and sodium: Most pedons are salt and sodium affected. Some pedons near drainageways and stream channels lack salt and sodium in the upper horizons.

Mottles: Faint or distinct iron mottles are common in any horizon below 10 inches.

Gypsum: Gypsum crystals are in some pedons below depth of 20 inches.

Control section:

Clay content--20 to 30 percent.

A horizon:

Hue--2.5Y or 10YR.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Reaction--Moderately alkaline to very strongly alkaline.

Other features--Slightly effervescent to violently effervescent.

Bq and Bqk horizons:

Hue--2.5Y or 10YR.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Structure--Platy, angular blocky, prismatic or it is massive.

Texture--Silt loam, silty clay loam; but may be statified fine sandy loam to silty clay.

Consistence--Slightly hard or hard, dry; very friable to firm moist; slightly sticky or sticky, slightly plastic or plastic, wet.

Reaction--Strongly alkaline or very strongly alkaline.

Other features--Strongly effervescent or

violently effervescent.

Cementation--20 to 40 percent durinodes.

Some pedons have subhorizons with up to 70 percent discontinuous weak silica cementation.

Beeox series

The Beeox series consists of very deep, moderately well drained soils that formed in alluvium from mixed rock sources that are thinly mantled by loess and volcanic ash. The Beeox soils are on fan piedmonts. Slopes are 0 to 8 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Fine, montmorillonitic, mesic Duric Natrargids

Typical pedon: Beeox cobbly silt loam, 2 to 4 percent slopes, in an area of map unit 190. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 5 percent pebbles and 10 percent cobbles.

A1--0 to 3 inches; pale brown (10YR 6/3) cobbly silt loam, brown (10YR 4/3) moist; moderate medium and thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; common very fine vesicular and interstitial pores; slightly effervescent; 5 percent pebbles and 10 percent cobbles; moderately alkaline; abrupt smooth boundary.

A2--3 to 8 inches; light gray (10YR 7/2) silt loam, brown (10YR 5/3) moist; moderate coarse prismatic structure that parts to strong thin platy; slightly hard, very friable, sticky and slightly plastic; common very fine and few fine and medium mainly exped roots; common very fine, fine and medium vesicular pores; 5 percent pebbles and 5 percent cobbles; strongly alkaline; clear wavy boundary.

Bq--8 to 12 inches; light gray (10YR 7/2) silt loam, dark grayish brown (10YR 4/2) moist, few fine distinct yellowish brown (10YR 5/4) mottles; moderate coarse prismatic structure parting to strong thin platy; hard, friable, very sticky and slightly plastic; common very fine and few fine and medium mainly exped roots; common very fine, fine and medium vesicular pores; many thin silica coats on horizontal faces of peds;

few very thin laminar lime and silica coats on horizontal and vertical faces of peds; few fine, prominent manganese stains in lower part of the horizon; 5 percent pebbles; very strongly alkaline; abrupt wavy boundary.

2Bt_{nk}b--12 to 21 inches; yellowish brown (10YR 5/6) clay, dark yellowish brown (10YR 4/6) moist; common fine faint dark yellowish brown (10YR 4/6) mottles; moderate medium prismatic structure; very hard, friable, very sticky and very plastic; common very fine, fine and medium mainly exped roots; common very fine tubular pores; common moderately thick clay films on faces of peds and lining pores; many moderately thick light gray (10YR 7/2) skeletal cappings capping prisms and extending down vertical faces of peds; few coarse, prominent manganese bands and stains in the upper part; SAR 17; 10 percent pebbles; few medium and fine soft lime filaments; 10 percent gravelly sand; strongly alkaline; clear irregular boundary.

2Bq_k1b--21 to 44 inches; white (10YR 8/2) loam, dark yellowish brown (10YR 4/4) moist; moderate medium prismatic structure parting to weak fine subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine and fine tubular pores; 50 percent strongly silica cemented durinodes and irregular masses; few fine white (N 8/0) gypsum masses on undersides of rock fragments; many coarse soft lime filaments and lenses; strongly effervescent; 10 percent pebbles; strongly alkaline; abrupt wavy boundary.

3Bq_k2b--44 to 60 inches; very pale brown (10YR 7/3) stratified extremely gravelly coarse sand to extremely cobbly sandy loam, dark yellowish brown (10YR 4/4) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine interstitial pores; many moderately thick lime and silica pendants on rock fragments; many thick discontinuous strongly silica-lime cemented lenses; violently effervescent; 40 percent pebbles and 20 percent cobbles; strongly alkaline.

Type location: Humboldt County, Nevada, approximately 2 miles south of Golconda; about 1,100 feet north and 600 feet east of the southwest corner of section 9, T. 35 N., R. 40 E.; (40 degrees, 55 minutes, 10 seconds north latitude and 117 degrees, 29 minutes, 15 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in late winter and spring. Dry late May through November.

Soil temperature: 47 to 52 degrees F.

Depth to Btn horizons: 9 to 18 inches.

Depth to unconformable pebbles and cobbles: 40 to 50 inches.

Control section:

Clay content--35 to 55 percent.

Rock fragments--Up to 15 percent, mainly pebbles.

A horizons:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Reaction--Moderately alkaline or strongly alkaline.

Bq horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Texture--Silt loam or very fine sandy loam.

Clay content--10 to 18 percent.

Rock fragments--Up to 15 percent, mainly pebbles.

Structure--Prismatic or platy.

Consistence--Hard or slightly hard, dry.

Reaction--Moderately alkaline to very strongly alkaline.

Cementation--Common to many thin silica coats on horizontal faces of peds, commonly increasing with depth. Discontinuous strongly cemented lenses are common in some pedons.

Mottles--Few to many, faint to distinct.

Other features--In most pedons, this layer is high in volcanic ash.

2Btnkb horizon:

Hue--10YR or 7.5YR.

Value--5 or 6 dry, 4 or 5 moist.

Chroma--3 through 6.

Texture--Clay or clay loam.

Clay content--35 to 55 percent.

Rock fragments--Up to 15 percent, mainly pebbles.

Structure--Prismatic or columnar.

Consistence--Hard or very hard, dry.

Reaction--Strongly alkaline or very strongly alkaline.

SAR--13 to 70 percent.

Mottles--The upper part of the horizon commonly has mottles or iron-manganese concretions.

Other features--Some pedons do not have filaments and soft masses of secondary lime. Brittle material capping the tops of prisms is present in some pedons.

2Bqkb horizon:

Hue--10YR or 7.5YR.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 through 6.

Texture--Loam, fine sandy loam, or sandy loam.

Clay content--15 to 25 percent.

Rock fragments--5 to 25 percent, mostly pebbles.

Structure--Prismatic, subangular blocky or the horizon is massive.

Consistence--Slightly hard or hard, dry.

Reaction--Strongly alkaline or very strongly alkaline.

Cementation--20 to 60 percent durinodes or more than 30 percent discontinuously weakly silica cemented.

Other features--Some pedons do not have filaments of soft, secondary gypsum.

3Bqkb horizon:

Hue--10YR or 7.5YR.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--3 through 6.

Texture--Stratified sandy loam to coarse sand.

Clay content--5 to 10 percent.

Rock fragments--45 to 70 percent, mainly gravel and cobbles.

Structure--The horizon is massive or single grain.

Reaction--Strongly alkaline or very strongly alkaline.

Cementation--Thin to very thick lenses of discontinuous weak to strong silica-lime cementation is common in most pedons.

Benin series

The Benin series consists of very deep, well drained soils that formed in thin alluvium and loess high in volcanic ash over lacustrine sediments. The Benin soils are on lake terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine, montmorillonitic (calcareous), mesic Typic Torriorthents

Typical pedon: Benin silt loam, in an area of map unit 274. (Colors are for dry soil unless otherwise noted.)

A--0 to 3 inches; light gray (2.5Y 7/2) silt loam, grayish brown (2.5Y 5/2) moist; weak medium and thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine vesicular pores; slightly effervescent; strongly alkaline; abrupt smooth boundary.

C--3 to 8 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; weak fine granular structure; slightly hard, friable, slightly sticky and plastic; many very fine and few fine roots; many very fine and fine tubular and common very fine vesicular pores; few thin silica films lining pores, common silica bridges and thin coatings on sand grains; slightly effervescent; strongly alkaline; clear smooth boundary.

2Ckn--8 to 23 inches; very pale brown (10YR 8/3) silty clay, pale brown (10YR 6/3) moist; strong medium angular blocky structure; extremely hard, extremely firm, sticky and plastic; common very fine and fine exped roots; many very fine and fine exped pores; loose soil material between peds; common ostracod shells; 70 percent of the faces of peds are coated with white (2.5Y 8/2) lime and 15 percent coated with very dark brown (10YR 2/2) manganese oxide stains; slightly effervescent matrix and violently effervescent lime coats; strongly alkaline; clear wavy boundary.

3Cy--23 to 33 inches; light gray (2.5Y 7/2) silty clay, grayish brown (2.5Y 5/2) moist; weak medium prismatic structure parting to strong medium and fine angular blocky; extremely hard, extremely firm, very sticky and very plastic; many very fine and fine exped roots; many very fine and fine exped pores; many ostracod shells; 75 percent of faces of peds have a thin coating of manganese and 15 percent have white gypsum flecks; strongly effervescent; strongly alkaline; clear wavy boundary.

3C'1--33 to 54 inches; light brownish gray (2.5Y 6/2) silty clay, grayish brown (2.5Y 5/2) moist; strong coarse prismatic structure; extremely hard, extremely firm, very sticky and very

plastic; few exped roots; common very fine and fine exped pores; continuous thin very dark gray (N 3/0) manganese stains on faces of peds; strongly effervescent; moderately alkaline; clear wavy boundary.

3C'2--54 to 70 inches; light gray (2.5Y 7/2) silty clay, grayish brown (2.5Y 5/2) moist; common fine and medium iron mottles; yellowish brown (10YR 5/6) moist, strong coarse prismatic structure; extremely hard, extremely firm, very sticky and very plastic; few very fine exped roots; few very fine and fine exped pores; 60 percent of faces of peds have a thin coating of very dark gray (N 3/0) manganese stains; few yellowish brown (10YR 5/6) cigar-shaped aggregates 1/8 to 1/4 inch in diameter and 1/2 to 1-1/2 inches in length that appear to be high in iron; strongly effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 8 miles southwest of Winnemucca, immediately northwest of the Winnemucca airport about 1,320 feet south of the northwest corner of section 15, T. 35 N., R. 37 E.; (40 degrees, 54 minutes, 46 seconds north latitude and 117 degrees, 48 minutes, 45 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, but is intermittently moist in winter and spring and dry in summer and fall.

Soil temperature: 47 to 52 degrees F.

Depth to lacustrine materials: 1 to 10 inches.

Other features: Electrical conductivity is 4 to 32 mmhos. A Exchangeable Sodium Percent--15 to 60 at some depth between 1 to 36 inches.

A horizon:

Value--6 or 7 dry.

Chroma--1 or 2.

Reaction--Moderately alkaline to very strongly alkaline.

Effervescence--Noneffervescent to strongly effervescent.

C horizon:

Hue--10YR or 2.5Y. Value--6 or 7 dry, 4 or 5 moist. Chroma--2 or 3.

Texture--Silt loam or loam.

Reaction--Moderately alkaline or strongly alkaline.

Effervescence--Noneffervescent to violently effervescent.

Gypsum--Common in some pedons.

2Ckn and 3C horizons:

Hue--10YR, 2.5Y or 5Y.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 or 3.

Texture--Silty clay or clay.

Structure--Weak through strong, medium or coarse prismatic that commonly parts to strong medium or coarse angular blocky, or is massive. Subhorizons are angular blocky in some pedons

Reaction--Moderately alkaline to strongly alkaline.

Other features--Some pedons have few to many silica coats on faces of peds. Gypsum is common in some subhorizon of most pedons. Some pedons have up to 10 percent durinodes.

Beoska series

The Beoska series consists of very deep, well drained soils that formed in loess over loamy and gravelly alluvium from mixed rock sources. The Beoska soils are on fan remnants. Slopes are 0 to 15 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine-loamy, mixed, mesic Duric Natrargids

Typical pedon: Beoska gravelly very fine sandy loam, 2 to 8 percent slopes, in an area of map unit 660. (Colors are for dry soil unless otherwise noted.)

A--0 to 5 inches; light brownish gray (10YR 6/2) gravelly very fine sandy loam, dark grayish brown (10YR 4/2) moist; strong very thin platy structure; soft, very friable, slightly sticky and slightly plastic; many fine roots; many very fine tubular pores; 15 percent pebbles; moderately alkaline; clear smooth boundary.

AB--5 to 14 inches; light brownish gray (10YR 6/2) gravelly silty clay loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; slightly hard, friable, sticky and plastic; common fine roots; common fine tubular pores; few thin clay films on faces of

peds and lining pores; 20 percent pebbles; moderately alkaline; abrupt smooth boundary.

Btn--14 to 18 inches; light yellowish brown (10YR 6/4) silty clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine prismatic structure parting to strong fine subangular blocky; hard, friable, sticky and plastic; common fine roots; common fine tubular pores; many moderately thick clay films on faces of peds and lining pores; 10 percent pebbles; strongly alkaline; clear smooth boundary.

Btnk--18 to 26 inches; very pale brown (10YR 7/4) silty clay loam, dark yellowish brown (10YR 4/4) moist; weak fine prismatic structure parting to strong fine subangular blocky; hard, friable, sticky and plastic; common fine roots; few fine tubular pores; common moderately thick clay films on faces of peds and lining pores; common fine filaments of lime; continuous lime coatings on rock fragments; strongly effervescent; 10 percent pebbles; moderately alkaline; clear wavy boundary.

2Bqk--26 to 60 inches; very pale brown (10YR 7/3) stratified gravelly sandy loam and gravelly fine sandy loam, light yellowish brown (10YR 6/4) moist; massive; soft, very friable, slightly sticky and slightly plastic; few fine roots; 25 percent weakly cemented durinodes, 10 percent weakly cemented discontinuous lenses; lime is disseminated; violently effervescent; 25 percent pebbles and 5 percent cobbles; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 4 miles north of the Lander County line in Buffalo Valley; about 600 feet north and 50 feet east of the southwest corner of section 26, T. 33 N., R. 42 E.; (40 degrees, 41 minutes, 58 seconds north latitude and 117 degrees, 13 minutes, 25 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry from late May through November.

Soil temperature: 47 to 52 degrees F.

Depth to 2Bqk horizon: 16 to 26 inches.

A horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry.

Chroma--2 or 3.

AB horizon:

Hue--10YR or 2.5Y.
 Value--6 or 7 dry.
 Chroma--2 or 3.
 Structure--Platy, prismatic, subangular blocky, or horizon is massive.
 Consistence--Soft or slightly hard, dry; very friable or friable, moist; slightly sticky or sticky and slightly plastic or plastic, wet.

Btn horizons:

Value--3 or 4 moist, 6 or 7 dry.
 Chroma--3 or 4.
 Texture--Silty clay loam, silt loam or clay loam.
 Clay content--25 to 35 percent.
 Rock fragments--Up to 15 percent, mainly pebbles.
 Reaction--Moderately alkaline or strongly alkaline.
 SAR--13 to 30
 Other features--Secondary carbonates in some subhorizons.

Bqk horizons:

Value--7 or 8 dry, 4 through 6 moist.
 Chroma--2 through 4.
 Texture--Stratified very fine sandy loam, fine sandy loam, sandy loam.
 Clay content--5 to 15 percent.
 Rock fragments--15 to 35 percent above 40 inches, 15 to 65 percent below 40 inches, mainly pebbles.
 Consistence--Soft through hard dry, very friable through firm moist, nonsticky or slightly sticky when wet.
 Reaction--Moderately alkaline or strongly alkaline.
 Other features--Has either 20 to 40 percent durinodes in a friable matrix or weak or strong discontinuous silica cementation.

Bilbo series

The Bilbo series consists of very deep, well drained soils that formed in alluvium from mixed rock sources. Bilbo soils occur on fan remnants and plateaus. Slopes are 8 to 30 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 46 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, mesic Xerollic Haplargids

Typical pedon: Bilbo gravelly loam, 8 to 30 percent slopes, in an area of map unit 781. (Color is for dry soil unless otherwise noted.) The soil surface is partially covered with 5 percent pebbles and 5 percent cobbles.

A--0 to 8 inches; light brownish gray (10YR 6/2) gravelly loam, dark brown (10YR 3/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine, and few medium roots; common very fine and fine vesicular and few medium tubular pores; 15 percent pebbles; slightly alkaline; clear smooth boundary.

E/B--8 to 13 inches; variegated pale brown (10YR 6/3) and grayish brown (10YR 5/2) gravelly loam, dark grayish brown (10YR 4/2) moist; moderate medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine, fine, and few medium roots; common very fine, fine, and few medium tubular pores; 20 percent pebbles and 5 percent cobbles; slightly alkaline; clear smooth boundary.

Bt1--13 to 25 inches; variegated light brownish gray (10YR 6/2) and grayish brown (10YR 5/2) very gravelly clay loam, brown (10YR 4/3) moist; strong coarse prismatic structure parting to moderate fine subangular blocky; hard, firm, sticky and plastic; few very fine, fine and medium roots; common very fine and fine tubular and few medium interstitial pores; continuous thin dark brown (10YR 3/3) clay films on faces of peds and lining pores; 30 percent pebbles and 5 percent cobbles; slightly alkaline; clear wavy boundary.

Bt2--25 to 40 inches; light yellowish brown (10YR 6/4) very gravelly clay, variegated yellowish brown (10YR 5/4) and dark yellowish brown (10YR 4/4) moist; strong coarse prismatic structure parting to moderate fine subangular blocky; very hard, very firm, very sticky and very plastic; few very fine, fine and medium roots; common very fine tubular and few fine and medium interstitial pores; common moderately thick clay films on faces of peds and lining pores; 45 percent pebbles, 10 percent cobbles and 2 percent stones; slightly alkaline; gradual wavy boundary.

2Bk--40 to 60 inches; variegated very pale brown (10YR 8/3 and 10YR 7/3) very gravelly sandy loam, pale brown (10YR 6/3) and yellowish

brown (10YR 5/4) moist; massive; slightly hard, friable, nonsticky and nonplastic; many medium filaments and soft masses of lime; violently effervescent; 40 percent pebbles and 5 percent cobbles; moderately alkaline.

Type location: Humboldt County, Nevada; about 80 feet west and 680 feet south of the northeast corner of section 10, T. 47 N., R. 40 E.; (41 degrees, 58 minutes, 36 seconds north latitude and 117 degrees, 26 minutes, 33 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry June through October.

Soil temperature: 47 to 51 degrees F.

Combined thickness of A and Bt horizons: 20 to 40 inches.

Depth to carbonates: 20 to 40 inches.

Depth to silica cementation: 40 to over 60 inches.

Reaction: Neutral to moderately alkaline, normally increasing with depth.

Other features: Transitional A/B or E/B horizons are in some pedons.

Control section:

Clay content--35 to 50 percent.

Rock fragments--35 to 60 percent, mainly pebbles with up to 20 percent cobbles in some pedons.

A horizon:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3.

Bt horizons:

Hue--7.5YR or 10YR.

Value--5 or 6 dry, 3 through 5 moist.

Chroma--2 through 4.

Texture--Very gravelly clay, very gravelly sandy clay, very gravelly sandy clay loam, very gravelly clay loam or extremely gravelly sandy clay.

Structure--Prismatic, subangular or angular blocky or is massive in the lower part.

Consistence--Slightly hard to very hard dry; friable to very firm moist; sticky or very sticky and plastic or very plastic, wet.

2Bk horizon:

Value--5 through 8 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Extremely gravelly loamy sand or very gravelly sandy loam.

Rock fragments--35 to 75 percent, mainly pebbles.

Consistence--Loose to slightly hard, dry; loose to firm, moist.

Blackhawk series

The Blackhawk series consists of shallow over a duripan, well drained soils that formed in a loess mantle over alluvium from mixed rock sources. Blackhawk soils are on fan remnants. Slopes are 0 to 8 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Loamy, mixed, mesic shallow Entic Durorthids

Typical pedon: Blackhawk loamy fine sand, in an area of map unit 155. (Colors are for dry soil unless otherwise noted.)

A--0 to 4 inches; light brownish gray (2.5Y 6/2) loamy fine sand, dark grayish brown (2.5Y 4/2) moist; moderate thick platy structure; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine vesicular pores; slightly effervescent; moderately alkaline; abrupt smooth boundary.

Bw--4 to 19 inches; light brownish gray (2.5Y 6/2) very fine sandy loam, dark grayish brown (2.5Y 4/2) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few medium roots; many very fine tubular pores; slightly effervescent, moderately alkaline; abrupt wavy boundary.

Bqkm--19 to 24 inches; light brownish gray (2.5Y 6/2) strongly cemented duripan, dark grayish brown (2.5Y 4/2) moist; massive; extremely hard, slightly rigid; common fine lime filaments; strongly effervescent, very strongly alkaline; clear wavy boundary.

Bqk--24 to 38 inches; light brownish gray (2.5Y 6/2) loam, dark grayish brown (2.5Y 4/2) moist; massive; soft, very friable, slightly sticky and slightly plastic; common very fine roots; many very fine tubular pores; 5 percent hard, firm and brittle durinodes; common fine soft filaments of lime; violently effervescent; very strongly

alkaline; clear wavy boundary.

2Bk--38 to 60 inches; light brownish gray (2.5Y 6/2) loamy coarse sand, dark grayish brown (2.5Y 4/2) moist; massive; soft, very friable, nonsticky and nonplastic; many very fine interstitial pores; violently effervescent; very strongly alkaline.

Type location: Humboldt County, Nevada; about 500 feet south and 500 feet east of the northwest corner of section 18, T. 38 N., R. 37 E.; (41 degrees, 10 minutes, 37 seconds north latitude and 117 degrees, 51 minutes, 58 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and early spring, dry late May through November.

Soil temperature: 47 to 54 degrees F.

Depth to duripan: 14 to 20 inches.

Control section:

Clay content--Averages 5 to 10 percent.

Rock fragments--Up to 30 percent, mainly pebbles.

Silt plus very fine sand--65 to 80 percent.

A horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Reaction--Slightly alkaline to strongly alkaline.

Bw horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Texture--Silt loam, loam, very fine sandy loam.

Clay content--Averages 5 to 10 percent.

Consistence--Nonsticky to sticky and nonplastic to plastic wet.

Rock fragments--0 to 30 percent, mainly pebbles.

Structure--Weak or moderate, thin to thick, platy, subangular blocky, or horizon is massive.

Reaction--Slightly alkaline to strongly alkaline.

Bqm, Bqkm, and Bk horizons:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 4 through 6 moist.

Chroma--2 or 3.

Structure--Weak to strong, thin or thick, platy,

or horizon is massive.

Reaction--Moderately alkaline to very strongly alkaline.

Effervescence--Noneffervescent to violently effervescent.

Silica cementation--The duripan usually consists of two or more strongly cemented layers interbedded with weakly silica-cemented material or strata with friable matrix containing durinodes.

Bk and Bqk horizons:

Textures--Immediately below the upper duripan of most pedons, textures are stratified loam, gravelly coarse sandy loam or gravelly coarse sand.

Consistence--Soft or slightly hard, dry; very friable or friable, moist; nonsticky to sticky and nonplastic to plastic wet.

2Bqk, and 3C horizons:

Texture--Unconformable strata of very gravelly or extremely gravelly sand, coarse sand, loamy coarse sand, and sandy loam are common below a depth of 30 inches.

Other features--Strata of clay are found below 30 inches in some pedons.

Bliss series

The Bliss series consists of moderately deep over duripan, well drained soils that formed in alluvium from mixed rock sources. The Bliss soils are on fan remnants and pediments. Slopes are 0 to 30 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Coarse-loamy, mixed, mesic Haploxerollic Durorthids

Typical pedon: Bliss fine sandy loam, 2 to 8 percent slopes, in an area of map unit 160. (Colors are for dry soils unless otherwise noted.)

A--0 to 4 inches; light brownish gray (10YR 6/2) fine sandy loam, dark grayish brown (10YR 4/2) moist; weak thick platy structure; soft, friable, nonsticky and nonplastic; many very fine roots; many very fine interstitial pores; slightly alkaline; abrupt wavy boundary.

Bw1--4 to 13 inches; pale brown (10YR 6/3) very fine sandy loam, brown (10YR 4/3) moist; weak fine and medium subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine and few fine roots; many very fine interstitial pores; slightly alkaline; clear wavy boundary.

Bw2--13 to 22 inches; pale brown (10YR 6/3) very fine sandy loam, brown (10YR 4/3) moist; massive; soft, friable, nonsticky and nonplastic; common very fine, few fine and medium roots; many very fine interstitial pores; mostly noneffervescent but slightly effervescent in spots; moderately alkaline; clear wavy boundary.

Bk--22 to 28 inches; pale brown (10YR 6/3) very fine sandy loam, brown (10YR 4/3) moist; massive; soft, friable, nonsticky and nonplastic; common very fine, few fine and medium roots; many very fine interstitial pores; lime is disseminated; slightly effervescent; strongly alkaline; abrupt wavy boundary.

Bqkm--28 to 45 inches; very pale brown (10YR 7/3) strongly cemented duripan, brown (10YR 5/3) moist; moderate thick platy structure; extremely hard, slightly rigid; common fine faint white (10YR 8/2) soft seams of lime; roots matted between plates; strongly effervescent; strongly alkaline; clear wavy boundary.

2Bqkm--45 to 56 inches; very pale brown (10YR 7/4) strongly cemented duripan, light yellowish brown (10YR 6/4) moist; massive; extremely hard, slightly rigid; violently effervescent; 40 percent pebbles, 5 percent cobbles; strongly alkaline; clear wavy boundary.

2Bqk--56 to 62 inches; very pale brown (10YR 7/4) very gravelly sandy loam, light yellowish brown (10YR 6/4) moist; massive; hard, firm, nonsticky and nonplastic; few very fine interstitial pores; 60 percent thick strongly cemented discontinuous lenses; thick lime and silica coatings on rock fragments; violently effervescent; 40 percent pebbles, 5 percent cobbles; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 4 miles northeast of Winnemucca; about 800 feet west and 600 feet south of the northeast corner of section 14, T. 36 N., R. 38 E.; (41 degrees, 00 minutes, 07 seconds north latitude and 117 degrees, 39 minutes, 39 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry from late May through November.

Soil temperature: 48 to 53 degrees F.

Depth to the duripan: 20 to 36 inches.

Control section:

Clay content--5 to 15 percent.

Rock fragments--Up to 15 percent.

A horizon:

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bw horizon:

Clay content--8 to 18 percent.

Rock fragments--Up to 15 percent.

Texture--Very fine sandy loam, silt loam or fine sandy loam containing 15 to 25 percent fine sand or coarser material.

Reaction--Neutral to moderately alkaline.

Bk horizon:

Reaction--Strongly alkaline or very strongly alkaline.

Texture--Very fine sandy loam, silt loam or fine sandy loam containing 15 to 40 percent fine sand or coarser material.

Calcium carbonate equivalent--Up to 15 percent.

Bqkm horizons:

Structure--Platy, or massive.

2Bqk horizon:

Hue--10YR or 2.5Y.

Value--6 through 8 dry; 5 or 6 moist.

Chroma--2 through 4.

Texture--Variable; ranges from sand to extremely gravelly very fine sandy loam.

Reaction--Moderately alkaline through very strongly alkaline.

Cementation--Ranges from 10 percent durinodes to 70 percent discontinuous lenses that are strongly cemented.

Bloor series

The Bloor series consists of very deep, moderately well drained soils that formed in alluvium from mixed rock sources with a component of loess. Bloor soils are on alluvial flats. Slopes are 0 to 2

percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Fine-silty, mixed, mesic Durixerollic Natrargids

Typical pedon: Bloor very fine sandy loam, in an area of map unit 222. (Colors are for dry soil unless otherwise noted.)

A--0 to 7 inches; light brownish gray (10YR 6/2) very fine sandy loam, dark grayish brown (10YR 4/2) moist; moderate medium platy structure parting to moderate very thin platy; soft, very friable, nonsticky and nonplastic; few very fine and fine roots; many very fine vesicular pores; strongly alkaline; abrupt smooth boundary.

E--7 to 11 inches; light gray (10YR 7/2) loam, grayish brown (10YR 5/2) moist; moderate medium platy structure; soft, very friable, nonsticky and nonplastic; common very fine and fine roots; many very fine vesicular pores; 10 percent lenses that are brittle when moist; strongly alkaline; abrupt smooth boundary.

AB--11 to 15 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; moderate medium platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine and medium roots; common very fine interstitial and vesicular pores; very strongly alkaline; abrupt smooth boundary.

Btn--15 to 27 inches; brown (10YR 5/3) silty clay loam, brown (10YR 4/3) moist; moderate coarse prismatic structure; hard, friable, sticky and plastic; few very fine roots; few very fine and fine tubular pores; many moderately thick clay films on faces of peds and lining pores; very strongly alkaline; clear smooth boundary.

Btnqk--27 to 30 inches; pale brown (10YR 6/3) silty clay loam, dark yellowish brown (10YR 4/4) moist; moderate coarse prismatic structure parting to moderate fine subangular blocky; slightly hard, friable, sticky and plastic; few very fine and fine roots; few very fine and fine tubular pores; common moderately thick clay films on faces of peds and lining pores; 10 percent durinodes; common medium soft filaments of lime; strongly effervescent; very strongly alkaline; abrupt wavy boundary.

Bqk1--30 to 42 inches; light brownish gray (2.5Y 6/2) loam, dark grayish brown (2.5Y 4/2) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine

roots; common very fine tubular pores; 25 percent durinodes; common medium soft filaments of lime; strongly effervescent; very strongly alkaline; clear wavy boundary.

Bqk2--42 to 60 inches; light brownish gray (2.5Y 6/2) sandy loam, dark grayish brown (2.5Y 4/2) moist; common fine prominent yellowish brown (10YR 5/4) iron mottles; massive; soft, very friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine tubular pores; 30 percent durinodes; common medium soft filaments of lime; strongly effervescent; very strongly alkaline.

Type location: Humboldt County, Nevada; about 4 miles northwest of Thacker Pass; about 500 feet south and 400 feet east of the northwest corner of section 9, T. 44 N., R. 34 E.; (41 degrees, 42 minutes, 42 seconds north latitude and 118 degrees, 09 minutes, 57 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in the winter and spring, dry mid-June through October.

Soil temperature: 47 to 54 degrees F.

Depth to carbonates: 9 to 33 inches.

Depth to silica cementation: 15 to 30 inches.

Depth to iron mottles: 10 to 42 inches.

Control section:

Clay content--27 to 35 percent.

A and E horizons:

Hue--2.5Y or 10YR.

Value--5 through 7 dry, 3 or 4 moist. Value of E horizon is one unit higher than that of the overlying horizon.

Chroma--2 or 3.

Reaction--Moderately alkaline to very strongly alkaline.

Other features--Buried A horizons are in some pedons.

Bt horizons:

Hue--2.5Y or 10YR.

Value--4 through 7 dry, 3 through 5 moist.

Chroma--2 through 5.

Texture--Silty clay loam with thin subhorizons of clay loam.

Structure--Prismatic or columnar, parting to angular or subangular blocky. Commonly subangular or angular blocky in lower part.

Consistence--Sticky or very sticky and plastic or very plastic, wet.

Reaction--Moderately alkaline to very strongly alkaline.

Durinodes--Commonly 10 to 50 percent in the lower subhorizon.

Exchangeable sodium--15 to 45 percent.

Effervescence--It is noneffervescent to strongly effervescent.

Other features--Iron manganese concretions are common in most pedons.

Bqk horizons:

Hue--2.5Y or 10YR.

Value--6 through 8 dry, 3 through 6 moist.

Chroma--2 through 4.

Texture--Silt loam or loam; sandy loam layers are in the lower part of some pedons.

Clay content--10 to 18 percent.

Structure--Massive or subangular blocky near krotovinas.

Cementation--Discontinuously weakly silica cemented or have 20 to 50 percent durinodes. Continuous weakly cemented layers are in most pedons.

Consistence--Soft to hard, dry; very friable to firm, moist.

Reaction--Strongly alkaline or very strongly alkaline.

Effervescence--Strongly effervescent or violently effervescent.

Other features--May have a small amount of mica in some subhorizons, gypsum is usually present in some subhorizon between 15 to 40 inches, but may not be present in some pedons.

Bluewing series

The Bluewing series consists of very deep, excessively drained soils that formed in very gravelly sandy alluvium derived from mixed rock sources. The Bluewing soils are on inset fans. Slopes are 2 to 4 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 51 degrees F.

Taxonomic class: Sandy-skeletal, mixed, mesic Typic Torriorthents

Typical pedon: Bluewing very gravelly sandy loam, 2 to 4 percent slopes, in an area of map unit 141. (Colors are for dry soils unless otherwise

noted.) The soil surface is partially covered with about 40 percent pebbles and 2 percent cobbles.

A--0 to 2 inches; pale brown (10YR 6/3) very gravelly sandy loam, brown (10YR 4/3) moist; moderate fine platy structure; soft, very friable, nonsticky and nonplastic; common very fine roots; many very fine and fine vesicular pores; 35 percent pebbles; strongly effervescent; moderately alkaline; abrupt smooth boundary.

Bk1--2 to 18 inches; pale brown (10YR 6/3) very gravelly loamy sand, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine, fine and medium roots; many very fine and fine interstitial pores; common thin lime pendants on pebbles; violently effervescent; 50 percent pebbles; strongly alkaline; clear smooth boundary.

Bk2--18 to 33 inches; pale brown (10YR 6/3) very gravelly loamy coarse sand, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine, fine, and few medium roots; many very fine and fine interstitial pores; common thin lime pendants on rock fragments; common fine soft filaments lime; violently effervescent; 50 percent pebbles and 5 percent cobbles; strongly alkaline; clear smooth boundary.

Bk3--33 to 60 inches; pale brown (10YR 6/3) extremely gravelly coarse sand, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine, fine, and few medium roots; many very fine and fine interstitial pores; many thin to moderately thick lime pendants on rock fragments; violently effervescent; 65 percent pebbles and 5 percent cobbles; strongly alkaline.

Type location: Humboldt County, Nevada; about 25 miles southwest of Winnemucca; about 500 feet east and 2,000 feet south of the northwest corner of section 20, T. 35 N., R. 34 E.; (40 degrees, 53 minutes, 43 seconds north latitude and 118 degrees, 11 minutes, 30 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, intermittently moist in winter and early spring, dry from early May through October.

Soil temperature: 53 to 59 degrees F.

Reaction: Slightly alkaline to strongly alkaline.

Effervescence: Noneffervescent or violently effervescent.

Control section:

Clay content--Averages 3 to 8 percent.

A horizon:

Hue--10YR or 2.5Y

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 through 4.

Effervescence--Noneffervescent to violently effervescent.

Bk horizons:

Hue--10YR or 2.5Y.

Value--5 through 8 dry; 3 through 5 moist.

Chroma--2 through 4.

Texture--Dominantly loamy coarse sand or coarse sand but may include strata ranging from loamy sand to loam.

Rock fragments--50 to 80 percent, mainly pebbles with up to 25 percent cobbles and stones; the pebbles are dominantly 3/4 to 1/4 inch in diameter.

Structure--Horizon is massive or single grain.

Boger series

The Boger series consists of shallow over duripan, well drained soils that formed in residuum and colluvium from basalt with a component of loess. The Boger soils are on plateaus. Slopes are 0 to 15 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Loamy-skeletal, mixed, mesic, shallow Xerollic Durorthids

Typical pedon: Boger cobbly very fine sandy loam, 2 to 4 percent slopes, in an area of map unit 1241. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 15 percent cobbles.

A1--0 to 1 inch; light brownish gray (10YR 6/2) cobbly very fine sandy loam, brown (10YR 4/3) moist; moderate thin platy structure; soft, very friable, nonsticky and slightly plastic; common very fine roots; many very fine interstitial pores; 5 percent pebbles and 10 percent cobbles; slightly alkaline; abrupt wavy boundary.

A2--1 to 3 inches; light brownish gray (10YR 6/2) cobbly very fine sandy loam, brown (10YR 4/3)

moist; weak thin and medium platy structure; slightly hard, very friable, nonsticky and slightly plastic; many very fine roots; many very fine interstitial and common very fine tubular pores; 10 percent pebbles and 10 percent cobbles; moderately alkaline; abrupt wavy boundary.

A3--3 to 6 inches; very pale brown (10YR 7/3) cobbly very fine sandy loam, brown (10YR 4/3) moist; weak medium platy structure; soft, very friable, slightly sticky and slightly plastic; many very fine, few fine, medium and coarse roots; many very fine interstitial and common very fine tubular pores; 10 percent pebbles and 10 percent cobbles; moderately alkaline; abrupt smooth boundary.

2Bqk1--6 to 15 inches; light brownish gray (10YR 6/2) very cobbly silt loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure parting to moderate medium platy; slightly hard, friable, slightly sticky and slightly plastic; many very fine, common fine, medium and coarse roots; common very fine tubular pores; 20 percent durinodes; few fine soft filaments of segregated lime, lime coatings and pendants on undersides of rock fragments; slightly effervescent; 10 percent pebbles, 30 percent cobbles, and 10 percent stones; 30 percent discontinuous brittle matrix; moderately alkaline; clear wavy boundary.

2Bqk2--15 to 19 inches; very pale brown (10YR 7/3) very cobbly silt loam, yellowish brown (10YR 5/4) moist; strong thin, medium and thick platy structure; slightly hard, firm, slightly sticky and slightly plastic; few very fine roots; few very fine tubular pores; few fine soft filaments of segregated lime; common thin lime-silica pendants; violently effervescent; 10 percent pebbles, 30 percent cobbles, and 10 percent stones; 80 percent discontinuous brittle matrix; strongly alkaline; abrupt smooth boundary.

2Bqkm--19 to 28 inches; white (10YR 8/2) silica and lime cemented indurated duripan; massive; 1 to 2 mm thick silica laminae; violently effervescent; abrupt wavy boundary.

3R--28 inches; basalt.

Type location: Humboldt County, Nevada; approximately 4 miles north of Winnemucca about 2,000 feet west and 1,600 feet south of the northeast corner of section 5, T. 36 N., R. 38 E.; (41 degrees, 01 minute, 42 seconds north latitude and 117 degrees, 43 minutes, 21 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist December through May, dry mid June through November.

Soil temperature: 47 to 52 degrees F.

Depth to Bqk horizon: 5 to 15 inches.

Depth to duripan: 14 to 20 inches.

Depth to bedrock: 18 to 30 inches.

Control section:

Clay content--10 to 18 percent.

Rock fragments--35 to 60 percent, mainly cobbles and stones.

A horizons:

Value--5 through 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Reaction--Slightly alkaline or moderately alkaline.

Other features--Combined thickness of the A horizons are 4 to 8 inches.

Bqk horizon:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Very cobbly loam, very stony silt loam, very cobbly very fine sandy loam or very cobbly silt loam.

Structure--Platy or subangular blocky.

Consistence--Slightly hard or hard dry.

Reaction--Moderately alkaline or strongly alkaline.

Cementation--20 to 80 percent discontinuous brittle matrix with 20 to 60 percent very hard durinodes.

Bqkm horizon:

Rock fragments--40 to 60 percent, mainly cobbles and stones that are cemented in the matrix.

Other features--Strongly cemented lenses are common in some pedons.

Boton series

The Boton series consists of very deep, well drained soils that formed in a thin layer of loess and alluvium influenced by volcanic ash over lacustrine sediments. Boton soils are on lake plains. Slopes are 0 to 2 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 51 degrees F.

Taxonomic class: Fine-silty, mixed (calcareous), mesic Durorthidic Torriorthents

Typical pedon: Boton very fine sandy loam, in an area of map unit 833. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light brownish gray (2.5Y 6/2) very fine sandy loam, dark grayish brown (2.5Y 4/2) moist; moderate thick platy structure, soft, very friable, nonsticky and nonplastic; common very fine and few fine roots; common very fine, fine and medium vesicular pores; moderately alkaline; abrupt smooth boundary.

A2--2 to 5 inches; light brownish gray (2.5Y 6/2) very fine sandy loam, dark grayish brown (2.5Y 4/2) moist; weak medium subangular blocky structure parting to strong very thin platy; soft, very friable, nonsticky and slightly plastic; many very fine and few fine roots; many very fine and common fine vesicular pores; moderately alkaline; abrupt wavy boundary.

Bq--5 to 15 inches; pale brown (10YR 6/3) very fine sandy loam, dark grayish brown (10YR 4/2) moist; weak coarse subangular blocky structure parting to moderate very thin platy; slightly hard, very friable, slightly sticky and slightly plastic; common very fine, fine and few medium and coarse roots; common very fine and few fine vesicular and few medium tubular pores; few thin silica coatings on horizontal faces of peds and lining pores; strongly alkaline; abrupt wavy boundary.

2Bqk1--15 to 21 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; massive; slightly hard, very friable, sticky and slightly plastic; common very fine and fine and few medium roots; few very fine and medium tubular pores; 60 percent durinodes in a friable matrix; violently effervescent; moderately alkaline; clear smooth boundary.

2Bqk2--21 to 27 inches; white (10YR 8/2) silt loam, pale brown (10YR 6/3) moist; few fine distinct yellowish brown (10YR 5/6) relict mottles; massive; hard, friable, sticky and slightly plastic; common very fine and few fine and medium roots; common very fine and few fine tubular pores; 20 percent durinodes; violently effervescent; very strongly alkaline; clear smooth boundary.

2Bqk3--27 to 37 inches; white (10YR 8/2) silt loam, brown (10YR 5/3) moist; few fine distinct

yellowish brown (10YR 5/6) relict mottles; massive; hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and few fine tubular pores; 20 percent durinodes; common thin soft filaments of lime; violently effervescent; very strongly alkaline; clear smooth boundary.

2Bk--37 to 62 inches; light gray (10YR 7/2) silt loam, grayish brown (10YR 5/2) moist; common fine and medium prominent yellowish brown (10YR 5/6) and brownish yellow (10YR 6/6) relict mottles; few very fine manganese stains on faces of peds; massive; hard, friable, sticky and slightly plastic; few very fine and fine roots; few very fine vesicular and common very fine, fine and medium tubular pores; common thin filaments and coatings of lime; strongly effervescent; very strongly alkaline.

Type location: Humboldt County, Nevada; about 0.3 miles south of Pronto siding; about 2,400 feet south and 300 feet west of the northeast corner of section 8, T. 35 N., R. 35 E.; (40 degrees, 55 minutes, 26 seconds north latitude and 118 degrees, 03 minutes, 41 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist for short periods in winter and spring and dry May through early November.

Soil temperature: 53 to 57 degrees F.

Depth to lacustrine materials: 10 to 20 inches.

Depth to Bq or Bqk horizons: 5 to 20 inches.

Control section:

Clay content--18 to 27 percent.

Relict iron mottles: Few to many, faint to prominent, fine through coarse in the lacustrine sediments.

Other features: Subhorizons with thin or very thin varves or lenses are common in the lacustrine sediments.

A horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Reaction--Moderately alkaline to very strongly alkaline

Bq and 2Bqk horizons:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 or 3.

Structure--Platy bedding planes or horizon is massive. Upper subhorizons are subangular blocky.

Texture--Average silt loam with strata of silty clay loam and very fine sandy loam.

Consistence--Slightly plastic or plastic, wet

Cementation--20 to 60 percent weakly or strongly cemented durinodes in a friable matrix. Silica lenses and thin silica coatings are in the upper horizons of some pedons.

Calcium carbonate equivalent--Average 5 to 20 percent.

Reaction--Moderately alkaline to very strongly alkaline

Exchangeable sodium--46 to 99 percent.

2Bk horizons:

Hue--10YR or 2.5YR.

Value--6 or 7 dry, 5 or 6 moist.

Chroma--2 or 3.

Consistence--Slightly hard or hard, dry; very friable or friable, moist; slightly plastic or plastic, wet.

Structure--Platelike bedding planes or horizon is massive.

Calcium carbonate equivalent--Averages 5 to 20 percent.

Reaction--Strongly alkaline or very strongly alkaline

Exchangeable sodium--46 to 99 percent.

Bregar series

The Bregar series consists of very shallow and shallow, well drained soils that formed in residuum and colluvium from igneous flow rocks, tuff and quartzite. Bregar soils are on hills, mountains, and plateaus. Slopes are 2 to 50 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 42 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid Lithic Xerollic Haplargids

Typical pedon: Bregar very gravelly loam, 15 to 30 percent slopes, in an area of map unit 120. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 35 percent pebbles and 10 percent cobbles.

A--0 to 2 inches; light brownish gray (10YR 6/2) very gravelly loam, brown (10YR 4/3) moist;

weak thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine roots; many very fine interstitial pores; 25 percent pebbles and 10 percent cobbles; slightly alkaline; abrupt smooth boundary.

Bt1--2 to 8 inches; pale brown (10YR 6/3) very gravelly clay 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 roots; many very fine and fine interstitial pores; few thin clay films coating faces of peds and lining pores; 45 percent pebbles and 5 percent cobbles; slightly alkaline; abrupt wavy boundary.

Bt2--8 to 12 inches; pale brown (10YR 6/3) very gravelly clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine interstitial pores; common moderately thick clay films on faces of peds and lining pores; 45 percent pebbles and 15 percent cobbles; slightly alkaline; abrupt wavy boundary.

R--12 inches; fractured rhyolite bedrock.

Type location: Humboldt County, Nevada, approximately 17 miles northeast of Paradise on Zymns Butte; about 1,200 feet south and 600 feet east of the northwest corner of section 30, T. 44 N., R. 42 E.; (41 degrees, 40 minutes, 03 seconds north latitude and 117 degrees, 17 minutes, 04 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring; dry late June through October.

Soil temperature: 41 to 46 degrees F.

Depth to bedrock: 5 to 12 inches.

Reaction: Slightly acid to slightly alkaline.

Other features: Some pedons have Bw horizons up to 5 inches thick. The upper 3 inches of bedrock is weathered to various degrees in some pedons.

Control section:

Clay content--Average 18 to 30 percent

Rock fragment--Average 35 to 70 percent.

A horizon:

Value--5 through 7 dry, 3 or 4 moist.

Chroma--2 through 4.

Bt horizons:

Hue--10YR or 7.5YR.

Value--5 or 6 dry, 3 through 5 moist.

Chroma--2 through 4.

Texture--Very gravelly clay loam, extremely cobbly clay loam, very cobbly clay loam, very gravelly sandy clay loam or extremely cobbly sandy clay loam. Extremely gravelly loam or extremely cobbly loam is common in some pedons.

Clay content--25 to 35 percent.

Rock fragments--50 to 75 percent, mainly pebbles and cobbles with up to 15 percent stones.

Structure--Weak or moderate, fine or medium, angular or subangular blocky, or it is massive.

Consistence--Friable or firm, moist; slightly plastic or plastic wet.

Other features--Lower boundary is broken, irregular, or wavy.

Broyles series

The Broyles series consists of very deep, well drained soils that formed in a thin loess mantle over mixed loamy alluvium. Broyles soils are on fan skirts, inset fans and fan remnants. Slopes are 0 to 8 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Coarse-loamy, mixed, mesic Duric Camborthids

Typical pedon: Broyles very fine sandy loam, in an area of map unit 774. (Colors are for dry soil unless otherwise noted.)

A--0 to 3 inches; light gray (10YR 7/2) very fine sandy loam, grayish brown (10YR 5/2) moist; moderate thick platy structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine and fine vesicular pores; moderately alkaline; abrupt wavy boundary.

Bw1--3 to 12 inches; very pale brown (10YR 7/3) fine sandy loam, brown (10YR 5/3) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine tubular and interstitial pores; 2 percent pebbles; moderately alkaline; abrupt smooth boundary.

Bw2--12 to 17 inches; very pale brown (10YR 7/3) very fine sandy loam, brown (10YR 5/3) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine, common fine and few medium roots; many very fine tubular and interstitial pores; strongly alkaline; abrupt wavy boundary.

Bw3--17 to 24 inches; very pale brown (10YR 7/3) loam, brown (10YR 5/3) moist; moderate thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine, few fine and medium roots; common very fine interstitial and common fine vesicular pores; moderately alkaline; abrupt smooth boundary.

2Bqk1--24 to 40 inches; very pale brown (10YR 7/3) very fine sandy loam, brown (10YR 5/3) moist; massive; slightly hard, friable, nonsticky and slightly plastic; few very fine roots; common very fine interstitial pores; 40 percent durinodes; common irregularly shaped soft seams and filaments of lime; violently effervescent; strongly alkaline; abrupt smooth boundary.

2Bqk2--40 to 60 inches; very pale brown (10YR 7/3) gravelly loamy sand, brown (10YR 5/3) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine roots; common very fine interstitial pores; 20 percent brittle durinodes in a friable matrix; thin lime coats on pebbles; violently effervescent; 15 percent pebbles; moderately alkaline.

Type location: Humboldt County, Nevada; about 03 miles south of Hot Pot; about 2,000 feet west and 2,600 feet south of the northeast corner of section 26, T. 35 N., R. 43 E.; (40 degrees, 52 minutes, 50 seconds north latitude and 117 degrees, 05 minutes, 55 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods through mid spring, dry in late May through November.

Soil temperature: 47 to 55 degrees F.

Depth to Bk or Bqk horizon: 10 to 24 inches.

Other features: Some pedons have strongly cemented duripans below 40 inches.

Control section:

Clay content--5 to 15 percent

Rock fragments--0 to 35 percent pebbles with the greater percentage commonly in the lower part.

Texture--Stratified loam, fine sandy loam, very fine sandy loam or silt loam in the upper part, and loam, fine sandy loam, very fine sandy loam, sandy loam, and loamy sand in the lower part.

A horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3

Reaction--Moderately alkaline or strongly alkaline.

Carbonates--Normally noncalcareous but may be effervescent in some pedons due to recharge from dust.

Bw horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4

Structure--Weak fine or medium subangular blocky, platy, prismatic or it is massive.

Consistence--Soft to hard dry; slightly plastic or plastic, wet.

Reaction--Moderately alkaline or strongly alkaline.

2Bqk horizon:

Reaction--Moderately alkaline to very strongly alkaline.

Cementation--20 to 75 percent durinodes; some pedons have very weak silica cementation in the matrix surrounding the durinodes.

Consistence--Nonplastic or slightly plastic, wet.

Bubus series

The Bubus series consists of very deep, well drained soils that formed in alluvium from mixed rock sources of mostly volcanic origin that are high in pyroclastic materials. Bubus soils are on alluvial flats, inset fans, fan skirts, and basin floor remnants. Slopes are 0 to 4 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Coarse-loamy, mixed (calcareous), mesic Durorthidic Torriorthents

Typical pedon: Bubus very fine sandy loam moderately saline, in an area of map unit 171. (Colors are for dry soil unless otherwise noted.)

A--0 to 2 inches; light brownish gray (10YR 6/2) very fine sandy loam, grayish brown (10YR 5/2) moist; weak medium platy structure; soft, very friable, nonsticky and nonplastic; few very fine roots; many very fine interstitial pores; moderately alkaline; abrupt wavy boundary.

C--2 to 5 inches; pale brown (10YR 6/3) very fine sandy loam; brown (10YR 5/3) moist; moderate medium platy structure; hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine vesicular pores; strongly alkaline; abrupt smooth boundary.

Ck1--5 to 10 inches; very pale brown (10YR 7/3) very fine sandy loam, yellowish brown (10YR 5/4) moist; moderate medium platy structure; slightly hard, very friable, nonsticky and slightly plastic; many very fine, fine and common medium roots; many very fine interstitial and few very fine tubular pores; few fine soft filaments of lime; violently effervescent; very strongly alkaline; abrupt wavy boundary.

Ck2--10 to 15 inches; very pale brown (10YR 7/3) very fine sandy loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, nonsticky and slightly plastic; many very fine, common fine, medium and coarse roots; many very fine interstitial and few very fine tubular pores; few medium soft masses of lime; violently effervescent; very strongly alkaline; abrupt wavy boundary.

Ck3--15 to 27 inches; very pale brown (10YR 7/4) very fine sandy loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common very fine, fine and medium roots; common very fine tubular and interstitial pores; many medium and coarse soft masses of lime; violently effervescent; very strongly alkaline; clear wavy boundary.

Cqk--27 to 41 inches; very pale brown (10YR 7/3) fine sandy loam, pale brown (10YR 6/3) moist; massive; slightly hard, very friable, nonsticky and slightly plastic; few very fine and fine roots; common very fine interstitial pores; 20 percent durinodes; many medium and coarse soft masses of lime; violently effervescent; very strongly alkaline; abrupt wavy boundary.

2C'--41 to 63 inches; very pale brown (10YR 7/4) stratified fine sandy loam to silt loam, light yellowish brown (10YR 6/4) moist; massive;

soft, very friable, nonsticky and nonplastic; few very fine and fine roots; many very fine interstitial pores; strongly effervescent; very strongly alkaline.

Type location: Humboldt County, Nevada; about 8 miles northeast of Winnemucca; about 1,700 feet north and 1,300 feet west of the southeast corner of section 3, T. 37 N., R. 39 E.; (41 degrees, 06 minutes, 38 seconds north latitude and 117 degrees, 34 minutes, 00 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry late May through November.

Soil temperature: 47 to 53 degrees F.

Depth to durinodes: 10 to 30 inches.

Other features: Iron mottles and gypsum, faint or distinct iron mottles and gypsum segregations are lacking in horizons below a depth of 10 inches in some pedons. Some pedons have stratified sand and gravel at depths below 40 inches.

Control section:

Clay content--10 to 15 percent.

Rock fragments--0 to 5 percent pebbles.

Salt and sodium--These soils are normally strongly salt and sodium affected throughout the profile, but some pedons are only moderately or slightly affected in the upper horizons.

A horizon:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Reaction--Moderately alkaline to very strongly alkaline.

Effervescence--Slightly, to violently effervescent.

C and Ck horizons:

Value--6 or 7 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Stratified loam, silt loam, very fine sandy loam, fine sandy loam, or sandy loam, but is dominantly very fine sandy loam.

Structure--Platy structure or it is massive.

Consistence--Slightly hard or hard, dry; very friable or friable, moist; nonsticky or slightly sticky, wet.

Reaction--Moderately alkaline to very strongly alkaline commonly decreasing with depth.

Effervescent--Strongly effervescent or violently effervescent.

Cqk horizon:

Value 6 or 7 dry, 4 through 6 moist;

Chroma--2 through 4.

Texture--Very fine sandy loam or fine sandy loam.

Consistence--Nonsticky or slightly sticky, wet.

Reaction--Moderately alkaline to very strongly alkaline.

Other features--20 to 70 percent durinodes.

2C horizon:

Texture--Some pedons have stratified sand and gravel at depths below 40 inches or are stratified fine sandy loam to silt loam.

Bullump series

The Bullump series consist of deep and very deep, well drained soils that formed in colluvium from argillite, quartzite, chert, and rhyolite rocks with a component of loess. Bullump soils are on mountains. Slopes are 15 to 75 percent. The mean annual precipitation is about 16 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid Pachic Argixerolls

Typical pedon: Bullump very gravelly loam, 30 to 50 percent slopes, in an area of map unit 1030. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles and 3 percent cobbles.

A1--0 to 3 inches; grayish brown (10YR 5/2) very gravelly loam, very dark brown (10YR 2/2) moist; moderate fine granular structure; slightly hard, very friable, nonsticky and slightly plastic; many very fine, common fine and medium roots; many very fine interstitial and tubular pores; 35 percent pebbles; neutral; abrupt smooth boundary.

A2--3 to 6 inches; grayish brown (10YR 5/2) gravelly loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure parting to moderate fine granular; slightly hard, friable, nonsticky and slightly plastic; many very fine, common fine and medium roots; many very fine and fine

interstitial and tubular pores; 30 percent pebbles; slightly acid; abrupt smooth boundary. A3--6 to 13 inches; grayish brown (10YR 5/2) gravelly loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure parting to moderate fine granular; slightly hard, friable, slightly sticky and slightly plastic; many very fine, fine and medium roots; many very fine and fine interstitial and tubular pores; 30 percent pebbles; slightly acid; clear smooth boundary.

Bt1--13 to 23 inches; brown (10YR 5/3) very gravelly 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 common fine roots; many very fine tubular pores; common thin clay films on faces of peds and lining pores; 35 percent pebbles and 5 percent cobbles; neutral; clear smooth boundary.

Bt2--23 to 52 inches; pale brown (10YR 6/3) very gravelly clay 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 roots; many very fine tubular pores; common thin clay films on faces of peds and lining pores; 45 percent pebbles and 10 percent cobbles; neutral; abrupt irregular boundary.

2R--52 inches; hard fractured volcanic rock with thin silica coats lining fractures.

Type location: Humboldt County, Nevada; about 3 miles southeast of House Creek Butte; about 650 feet south and 300 feet east of the northwest corner of section 26, T. 46 N., R. 32 E.; (41 degrees, 50 minutes, 39 seconds north latitude and 118 degrees, 21 minutes, 43 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and early summer, dry late July to early October. Additional soil moisture may be supplied by lateral water movement in the lower part of the profile.

Soil temperature: 43 to 47 degrees F.

Mollic epipedon thickness: 20 to 40 inches and may include the upper part of the argillic horizon.

Profile reaction: Slightly acid through slightly alkaline.

Other features: Some pedons have a C horizon that is below 40 inches.

Depth to bedrock: 40 to 80 inches.

Control section:

Clay content--25 to 35 percent.

Rock fragments--35 to 55 percent, mainly pebbles with some cobbles.

A horizons:

Value--3 through 5 dry, 2 or 3 moist.

Chroma--1 through 3.

Other features--Organic matter 2 to 6 percent.

Bt horizons:

Hue--7.5YR or 10YR.

Value--4 through 6 dry, 2 through 4 moist.

Chroma--2 through 6.

Texture--Very gravelly loam or very gravelly clay loam.

Clay content--25 to 35 percent.

Rock fragments--35 to 55 percent, mainly pebbles.

Structure--Subangular blocky or angular blocky.

Consistence--Slightly sticky or sticky and slightly plastic or plastic, wet.

Other features--Uncoated sand grains and few silt coats lining pores occur in some pedons.

Some pedons have few distinct mottles or manganese stains on pebbles.

very thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; many very fine and fine vesicular pores; 10 percent pebbles, 5 percent cobbles and 2 percent stones, moderately alkaline; clear smooth boundary.

A2--2 to 7 inches very pale brown (10YR 7/3) loam, brown (10YR 5/3) moist; strong very thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; few very fine tubular pores; 10 percent pebbles, moderately alkaline; clear smooth boundary.

Bt--7 to 14 inches; light yellowish brown (10YR 6/4) very cobbly clay, dark yellowish brown (10YR 4/4) moist; strong medium subangular blocky structure; hard, firm, very sticky and very plastic; few very fine roots; few very fine tubular pores; many moderately thick clay films on faces of peds and lining pores; 25 percent pebbles and 25 percent cobbles; moderately alkaline; abrupt smooth boundary.

R--14 inches; chert.

Type location: Humboldt County, Nevada; about 2,200 feet east and 1,200 feet south of the northwest corner of section 9, T. 33 N., R. 42 E.; (40 degrees, 45 minutes, 12 seconds north latitude and 117 degrees, 15 minutes, 20 seconds west longitude.)

Burrita series

The Burrita series consists of shallow, well drained soils formed in residuum and colluvium from interbedded chert, quartzite, sandstone, shale and volcanic rocks. Burrita soils are on plateaus, mountains, and hills. Slopes are 4 to 50 percent. Mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, mesic, Lithic Xerollic Haplargids

Typical pedon: Burrita stony loam, 4 to 30 percent slopes, in an area of map unit 596. (Colors are for dry soils unless otherwise noted.) The soil surface is partially covered with 10 percent pebbles, 5 percent cobbles, and 2 percent stones.

A1--0 to 2 inches; very pale brown (10YR 7/3) stony loam, brown (10YR 5/3) moist; moderate

Range in characteristics:

Soil moisture: Moist in winter and spring, dry from July through October.

Soil temperature: 47 to 50 degrees F.

A and Bt thickness and depth to bedrock: 14 to 20 inches.

Reaction: Moderately alkaline or strongly alkaline.

Control section:

Clay content--35 to 50 percent.

Rock fragments--35 to 60 percent, when mixed, mainly pebbles and cobbles.

A horizons:

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 through 4.

Bt horizon:

Hue--10YR or 7.5 YR.

Value--4 through 6 dry, 3 or 4 moist.

Chroma--3 through 6.

Texture--Very gravelly clay, very cobbly clay, very stony clay, very gravelly clay loam, very

cobbly clay loam, very stony clay loam.
Structure--Subangular blocky, angular blocky or is massive.

Carstump series

The Carstump series consists of moderately deep, well drained soils that formed in residuum and colluvium from chert, shale and volcanic rocks with minor additions of loess and ash. Carstump soils are on mountains and plateaus. Slopes are 4 to 50 percent. The mean annual precipitation is about 10 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, frigid Aridic Calcic Argixerolls

Typical pedon: Carstump gravelly loam, 15 to 30 percent slopes, in an area of map unit 620. (Colors are for dry soils unless otherwise noted.) The soil surface is partially covered with 25 percent pebbles and 5 percent cobbles.

A1--0 to 2 inches; grayish brown (10YR 5/2) gravelly loam, dark grayish brown (10YR 4/2) moist; weak thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; many very fine and fine vesicular pores and common very fine tubular and interstitial pores; 15 percent pebbles; neutral; clear wavy boundary.

A2--2 to 9 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; common very fine tubular and interstitial pores; 20 percent pebbles; slightly alkaline; clear wavy boundary.

Bt1--9 to 15 inches; brown (10YR 5/3) very gravelly silty clay loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine roots; common very fine tubular and interstitial pores; common thin clay films on faces of peds and lining pores; 25 percent pebbles and 10 percent cobbles; slightly alkaline; clear wavy boundary.

Bt2--15 to 22 inches; light yellowish brown (10YR 6/4) very cobbly clay, dark yellowish brown (10YR 4/4) moist; strong fine angular blocky structure; hard, firm, sticky and plastic; few

very fine roots; few very fine tubular pores; many moderately thick clay films on faces of peds and lining pores; 30 percent pebbles and 20 percent cobbles; moderately alkaline; clear wavy boundary.

Btk--22 to 28 inches; light brown (7.5YR 6/4) very cobbly clay, brown (7.5YR 4/4) moist; strong medium angular blocky structure; hard, firm, sticky and plastic; few very fine roots; common very fine tubular pores; many moderately thick clay films on faces of peds and coating rock fragments; common fine filaments and soft masses of lime; strongly effervescent; 30 percent pebbles and 20 percent cobbles; moderately alkaline; abrupt wavy boundary.
R--28 inches; hard, fractured, basalt bedrock.

Type location: Humboldt County, Nevada; about 27 miles east of Paradise Valley; about 2,300 feet south and 2,500 feet west of the northeast corner of section 26, T. 41 N., R. 44 E.; (41 degrees, 25 minutes, 26 seconds north latitude and 117 degrees, 01 minute, 06 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually moist November to June, usually dry July through October.

Soil temperature: 45 to 47 degrees.

Mollic epipedon thickness: 7 to 15 inches, includes the upper part of the argillic horizon in some pedons.

Depth to secondary lime: 20 to 35 inches.

Depth to bedrock: 20 to 40 inches.

Control section:

Clay content--40 to 55 percent.

Rock fragments--35 to 50 percent, mainly pebbles and cobbles.

A horizons:

Value--5 dry, 3 moist. Value of 6 dry is below 10 inches in some pedons. Thin upper horizons of some pedons have a moist value of 4 with the top 7 inches of soil averaging a color value of 3 moist.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bt and Btk horizons:

Hue--10YR or 7.5YR.

Value--5 or 6 dry, 3 or 4 moist.

Chroma--3 or 4.

Structure--Angular blocky or subangular blocky.

Texture--Very gravelly clay, very cobbly clay.
 Subhorizons of very gravelly silty clay loam or clay loam are in some pedons.
 Consistence--Slightly hard to very hard, dry; sticky or very sticky and plastic or very plastic; wet.
 Reaction--Neutral through moderately alkaline in the noncalcareous upper part; moderately alkaline to strongly alkaline in the lower part.
 Other features--Soft powdery lime in filaments or soft masses is in the Btk horizon. The Bt horizons are noneffervescent and the Btk horizons are slightly effervescent to violently effervescent.

Charwell series

The Charwell series consists of moderately deep, well drained soils that formed in residuum from volcanic rocks with minor amounts of loess and volcanic ash. Charwell soils are on plateaus. Slopes are 4 to 15 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 42 degrees F.

Taxonomic class: Very fine, montmorillonitic, frigid
 Abruptic Aridic Durixerolls

Typical pedon: Charwell gravelly loam, 4 to 15 percent slopes, in an area of map unit 1551. (Colors are for dry soil unless otherwise noted.)

A1--0 to 3 inches; grayish brown (10YR 5/2) gravelly loam, very dark brown (10YR 2/2) moist; moderate medium subangular blocky structure; hard, firm, sticky and slightly plastic; many very fine, common fine and medium roots; many very fine, common fine and medium tubular pores; 20 percent pebbles and 10 percent cobbles; neutral; abrupt smooth boundary.

A2--3 to 8 inches; grayish brown (10YR 5/2) very cobbly clay loam, dark brown (10YR 3/3) moist; weak medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine, fine, and few medium roots; common very fine tubular and common very fine, fine, and few medium interstitial pores; 35 percent pebbles, 20 percent cobbles; neutral; abrupt wavy boundary.

Bt1--8 to 10 inches; grayish brown (10YR 5/2) gravelly clay, dark brown (10YR 3/3) moist;

moderate fine subangular blocky structure; hard, firm, very sticky and very plastic; common very fine, few fine and medium roots; common very fine, few fine and medium tubular pores; common moderately thick clay films on faces of peds and lining pores; 25 percent pebbles and 5 percent cobbles; neutral; abrupt wavy boundary.

Bt2--10 to 18 inches; yellowish brown (10YR 5/4) gravelly clay, dark yellowish brown (10YR 4/4) moist on interiors of peds, dark yellowish brown (10YR 3/4) moist on faces of peds; strong medium prismatic structure parting to strong medium angular blocky; extremely hard, very firm, very sticky and very plastic; common very fine and few medium roots; common very fine, few fine and medium tubular pores; many moderately thick pressure faces on peds; 20 percent pebbles and 5 percent cobbles; neutral; abrupt wavy boundary.

Bq--18 to 22 inches; pink (7.5YR 8/4) very gravelly sandy clay loam, brown (7.5YR 5/4) moist; massive; very hard, firm and brittle; common very fine tubular pores; 30 percent strongly silica-cemented lenses and irregular masses; 40 percent pebbles, 10 percent cobbles and 2 percent stones; continuous brittle matrix; moderately alkaline; abrupt broken boundary.

Bqkm--22 to 23 inches; white (10YR 8/2) indurated duripan, very pale brown (10YR 7/3) moist; massive; very rigid; continuous indurated duripan with a thin, 1 to 2 mm thick laminar cap; many medium filaments and soft masses of lime in lower part; abrupt wavy boundary.

R--23 inches; unweathered rhyolite.

Type location: Humboldt County, Nevada; approximately 15 miles east of McDermitt; about 760 feet west and 1,900 feet south of the northeast corner, section 5, T. 47 N., R 41 E.; (41 degrees, 59 minutes, 40 seconds north latitude and 117 degrees, 22 minutes, 02 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, usually dry July through mid October.

Soil temperature: 42 to 47 degrees F.

Mollic epipedon thickness: 7 to 14 inches, commonly includes the upper part of the argillic horizon.

Depth to duripan: 20 to 30 inches.

Depth to bedrock: 21 to 40 inches.

Control section:

Clay content--Averages 60 to 70 percent.
Rock fragments--15 to 35 percent, mainly pebbles.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.
Chroma--2 or 3.

Bt horizons:

Hue--10YR or 7.5YR.
Value--5 or 6 dry, 2 through 4 moist.
Chroma--2 through 4.
Structure--Prismatic or subangular blocky or prismatic that parts to angular blocky.
Consistence--Hard, very hard or extremely hard, dry.

Bq horizons:

Hue--7.5YR or 10YR.
Value--7 or 8 dry, 5 through 7 moist.
Chroma--2 through 4.
Texture--Very gravelly sandy clay loam, very gravelly loam, very gravelly clay loam.
Clay content--18 to 35 percent.
Rock fragments--35 to 60 percent, mainly pebbles.
Consistence--Very hard or hard, dry.
Reaction--Slightly alkaline or moderately alkaline.
Cementation--Continuous brittle matrix with common to many strongly cemented lenses.

Bqm and Bqkm horizons:

Value--7 or 8 dry, 6 or 7 moist.
Chroma--1 through 3.

Chiara series

The Chiara series consists of shallow to a duripan, well drained soils that formed in alluvium from mixed rock sources with a loess mantle high in volcanic ash. Chiara soils are on fan remnants and plateaus. Slopes are 0 to 30 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow, Xerollic Durorthids

Typical pedon: Chiara cobbly silt loam, 2 to 4 percent slopes, in an area of map unit 188.

(Colors are for dry soil unless otherwise noted.)

A--0 to 3 inches, light brownish gray (10YR 6/2) cobbly silt loam, very dark grayish brown (10YR 3/2) moist; weak medium platy structure; soft, very friable, slightly sticky and slightly plastic; many very fine, fine and medium roots; many very fine and fine interstitial pores; 10 percent cobbles and 10 percent pebbles; neutral; clear smooth boundary.

Bw--3 to 10 inches, pale brown (10YR 6/3) very fine sandy loam, brown (10YR 4/3) moist; weak fine and medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine, fine and medium roots; many very fine and fine interstitial and tubular pores; 5 percent pebbles; neutral; clear wavy boundary.

Bqk--10 to 14 inches, very pale brown (10YR 7/3) very fine sandy loam, brown (10YR 5/3) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine interstitial and tubular pores; 20 percent weakly cemented durinodes; lime is disseminated; slightly effervescent in the upper part, strongly effervescent in the lower part; 5 percent pebbles; strongly alkaline; abrupt wavy boundary.

Bqkm1--14 to 41 inches; pale brown (10YR 6/3) indurated duripan, brown (10YR 5/3) moist; massive; very rigid; violently effervescent; strongly alkaline; abrupt smooth boundary.

Bqkm2--41 to 60 inches; pale brown (10YR 6/3) indurated duripan with lenses of weakly cemented very gravelly sandy loam; brown (10YR 5/3) moist; massive; very rigid; violently effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; about 4 miles south of Winnemucca; 1,650 feet south and 2,500 feet west of the northeast corner of section 16, T. 35 N., R. 38 E.; (40 degrees, 54 minutes, 43 seconds north latitude and 117 degrees, 42 minutes, 20 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry in summer and fall.

Soil temperature: 47 to 53 degrees F.

Depth to duripan: 10 to 20 inches.

Other features: Depth to lime--4 to 15 inches.

Control section:

Clay content--5 to 18 percent.

Rock fragments--When mixed, up to 5 percent, mainly pebbles, thin subhorizons in some pedons have 4 to 25 percent, comprised mainly of duripan fragments.

Sand--Less than 15 percent fine sand and coarser.

A horizon:

Value--3 or 4 moist.

Chroma--2 or 3.

Reaction--Neutral to moderately alkaline.

Bw horizon:

Value--6 or 7 dry, 3 through 5 moist.

Chroma--3 or 4.

Texture--Very fine sandy loam, loam, or silt loam.

Structure--Weak to strong, fine to coarse subangular blocky or weak prismatic.

Consistence--Soft or slightly hard, dry; very friable or friable moist; nonsticky or slightly sticky and nonplastic or slightly plastic, wet.

Reaction--Neutral to strongly alkaline.

Bqk horizon:

Value--6 or 7 dry, 3 through 5 moist.

Texture--Very fine sandy loam, loam or silt loam with 70 to 85 percent silt plus very fine sand.

Structure--Subangular blocky or is massive.

Consistence--Very friable or friable, moist; slightly sticky or nonsticky wet.

Cementation--Contains from 20 to 60 percent weakly cemented and brittle durinodes from 0.3 to 1 inch in diameter.

Reaction--Moderately alkaline to strongly alkaline.

Bqkm horizon:

Value--6 through 8 dry, 5 through 7 moist.

Chroma--2 through 4.

Structure--Massive or weak or moderate thick platy.

Other features--Stratified gravelly and sandy substratums occur below 40 inches in some pedons.

Cleavage series

The Cleavage series consists of shallow, well

drained soils that formed in residuum or colluvium from igneous or sedimentary rocks. Cleavage soils are on mountains and plateaus. Slopes are 8 to 50 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid Lithic Argixerolls

Typical pedon: Cleavage very cobbly loam, 8 to 30 percent slopes, in an area of map unit 891. (Colors are for dry soil unless otherwise noted). The soil surface is partially covered with 25 percent pebbles, 15 percent cobbles, and 2 percent stones.

A1--0 to 2 inches; brown (10YR 5/3) very cobbly loam, very dark grayish brown (10YR 3/2) moist; moderate thin platy structure parting to moderate fine granular; soft, very friable, nonsticky and slightly plastic; many very fine roots; many very fine interstitial and vesicular pores; 20 percent pebbles, 15 percent cobbles and 2 percent stones; neutral; abrupt smooth boundary.

A2--2 to 7 inches; brown (10YR 5/3) gravelly 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, fine and common medium roots; common very fine interstitial and tubular pores; 20 percent pebbles, 10 percent cobbles and 2 percent stones; neutral; clear smooth boundary.

BA--7 to 10 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 very fine, fine, and common medium roots; common very fine interstitial and tubular pores; 35 percent pebbles, 10 percent cobbles and 3 percent stones; neutral; abrupt smooth boundary.

Bt--10 to 16 inches; brown (10YR 5/3) very gravelly clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; hard, friable, sticky and plastic; few fine and medium roots; common very fine and fine tubular pores; common faint clay films coating faces of peds and lining pores; 45 percent pebbles, 5 percent cobbles, and 3 percent stones; neutral; abrupt wavy boundary.

2R--16 inches; hard andesite.

Type location: Humboldt County, Nevada; approximately 3 miles southeast of House Creek Butte, about 2,400 feet south and 400 feet east of the northwest corner of section 26, T. 46 N., R. 32 E.; (41 degrees, 50 minutes, 23 seconds north latitude and 118 degrees, 21 minutes, 38 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry from July through October for 70 to 120 consecutive days.

Soil temperature: 44 to 47 degrees F.

Mollic epipedon thickness: 7 to 10 inches, does not include Bt horizon.

Depth to bedrock: 14 to 20 inches.

Control section:

Clay content--20 to 35 percent.

Rock fragments--50 to 80 percent, mostly pebbles or cobbles.

Reaction--Neutral or slightly alkaline.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3.

BA horizon:

Chroma--2 through 4.

Texture--Very cobbly loam or very gravelly loam.

Consistence--Slightly plastic or plastic, wet.

Rock fragments--35 to 50 percent.

Reaction--Neutral or slightly alkaline.

Bt horizon:

Hue--7.5YR or 10YR.

Value--5 or 6 dry, 3 or 4 moist.

Chroma--3 or 4.

Texture--Very cobbly, extremely cobbly, very gravelly or extremely gravelly clay loam, very gravelly sandy clay loam, some pedons have very cobbly or very gravelly loam.

Structure--Subangular blocky, angular blocky or it is massive.

Consistence--Friable or firm, moist.

mixed rock sources with influence from loess. Clementine soils are on stream terraces and flood plains. Slopes are 0 to 2 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Fine-silty, mixed, mesic Cumulic Endoaquolls

Typical pedon: Clementine silt loam, drained in an area of map unit 641. (Colors are for dry soil unless otherwise noted.)

A1--0 to 3 inches grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, common fine and medium roots; many very fine tubular and interstitial pores; slightly alkaline; abrupt wavy boundary.

A2--3 to 12 inches; grayish brown (10YR 5/2) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure; slightly hard, friable, sticky and slightly plastic; many very fine, fine, common medium and few coarse roots; many very fine, common fine tubular and interstitial pores; moderately alkaline; abrupt smooth boundary.

Ak--12 to 24 inches; grayish brown (10YR 5/2) silty clay loam, very dark grayish brown (10YR 3/2) moist; few fine distinct yellowish brown (10YR 5/4) mottles; moderate coarse subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine, fine, few medium and coarse roots; many very fine and common fine tubular pores; common fine seams of lime; noneffervescent matrix; strongly alkaline; abrupt wavy boundary.

Ck1--24 to 30 inches; very pale brown (10YR 7/3) silty clay loam, brown (10YR 5/3) moist; few fine distinct brownish yellow (10YR 6/6) mottles; weak medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine roots; many very fine, fine and few medium tubular pores; common fine segregated seams of lime; slightly effervescent; strongly alkaline; abrupt smooth boundary.

Ck2--30 to 34 inches; light brownish gray (2.5Y 6/2) silt loam, dark grayish brown (2.5Y 4/2) moist; few fine prominent brownish yellow (10YR 6/6) mottles; few thick prominent yellow (10YR 7/6) lamellae and bands, yellowish

Clementine series

The Clementine series consists of very deep, poorly drained soils that formed in alluvium from

brown (10YR 5/6) moist; weak medium subangular blocky structure; slightly hard, friable, sticky and slightly plastic; common very fine roots; many very fine and common fine tubular pores; many fine soft filaments of lime; strongly alkaline; abrupt wavy boundary.

Ck3--34 to 36 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; many fine faint brownish yellow (10YR 6/6) mottles, few fine prominent black (10YR 2/1) mottles; massive, slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; common very fine tubular and interstitial pores; slightly effervescent; strongly alkaline; abrupt wavy boundary.

Ck4--36 to 51 inches; light brownish gray (2.5Y 6/2) silty clay loam, dark grayish brown (2.5Y 4/2) moist; common fine prominent brownish yellow (10YR 6/6) mottles; massive; slightly hard, friable, sticky and plastic; common very fine, few fine and medium roots; many very fine tubular pores; many fine segregated filaments of lime; strongly alkaline.

Ck5--51 to 65 inches; grayish brown (2.5Y 5/2) silty clay loam, very dark grayish brown (2.5Y 3/2) moist; many fine prominent dark yellowish brown (10YR 3/6) mottles; common medium manganese stains; massive; hard, firm, sticky and plastic; many very fine and fine tubular pores; common small charcoal pieces; many fine segregated filaments of lime; strongly alkaline.

Type location: Humboldt County, Nevada, about 27 miles east of the town of Paradise Valley along the south fork of the Little Humboldt river; 1,900 feet south and 2,200 feet east of the northwest corner of section 11, T. 41 N., R. 43 E.; (41 degrees, 26 minutes, 55 seconds north latitude and 117 degrees, 05 minutes, 07 seconds west longitude.)

Range in characteristics:

Soil moisture: Saturated at or near the surface for one month or more during February through July. Drained phases are recognized.

Soil temperature: 47 to 53 degrees F.

Mollic epipedon thickness: 24 to 30 inches.

Depth to carbonates: 12 to 40 inches.

Other features: Few to common, fine, redox concentration occur below depths of 12 inches.

Control section:

Clay content--25 to 35 percent.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--1 through 3 dry or moist.

Reaction--Neutral to strongly alkaline.

Ck horizon:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 3 through 5 moist.

Chroma--1 through 3 dry or moist.

Texture--Stratified silt loam or silty clay loam.

Structure--Subangular blocky or is massive.

Consistence--Friable or firm, moist, slightly sticky or sticky, wet.

Reaction--Moderately alkaline or strongly alkaline.

Other features--Few fine manganese stains are on peds in most pedons.

Climine series

The Climine series consists of very deep, well drained soils that formed in colluvium from mixed rock sources with additions of loess high in volcanic ash. Climine soils are on mountains. Slopes are 30 to 75 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 42 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid Pachic Haploxerolls

Typical pedon: Climine very fine sandy loam, 30 to 50 percent slopes, in an area of map unit 1450. (Colors are for dry soil unless otherwise noted.)

A1--0 to 8 inches; dark grayish brown (10YR 4/2) very fine sandy loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine, fine and medium roots; many very fine, fine and medium tubular pores; 10 percent pebbles; neutral; abrupt smooth boundary.

A2--8 to 11 inches; brown (10YR 4/3) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine, fine and medium roots; common very fine, fine and medium tubular and interstitial pores; 15 percent pebbles; slightly alkaline; clear smooth boundary.

- A3--11 to 18 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine through coarse roots; common very fine, fine, medium and few coarse tubular pores; 15 percent pebbles and 2 percent cobbles; slightly alkaline; clear smooth boundary.
- AB--18 to 25 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak medium subangular blocky structure; soft, very friable, sticky and slightly plastic; common very fine, fine, medium and few coarse roots; common very fine, fine and medium tubular pores; 10 percent durinodes in the lower part; 35 percent pebbles and 2 percent cobbles; slightly alkaline; clear smooth boundary.
- 2Bq1--25 to 41 inches; yellowish brown (10YR 5/4) very gravelly loam, brown (10YR 4/3) moist; massive; slightly hard, very friable, sticky and slightly plastic; common very fine, fine, and few medium roots; common very fine and fine tubular pores; 10 percent durinodes; few thin filamentous silica pendants on rock fragments; 45 percent pebbles, 5 percent cobbles, and 5 percent stones; slightly alkaline; clear smooth boundary.
- 2Bq2--41 to 51 inches; yellowish brown (10YR 5/4) extremely gravelly clay loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine, fine and medium roots; common very fine, fine and medium tubular pores; 20 percent durinodes; common thin filamentous silica pendants on rock fragments; 55 percent pebbles, 5 percent cobbles; slightly alkaline; abrupt wavy boundary.
- 2Bq3--51 to 60 inches; yellowish brown (10YR 5/4) extremely gravelly loam, brown (10YR 4/3) moist; massive; hard, firm, and brittle; slightly sticky and slightly plastic; few very fine and fine roots; few very fine and fine tubular pores; 10 percent durinodes; common thin silica pendants on rock fragments; 60 percent pebbles and 5 percent cobbles; continuous brittle matrix; slightly alkaline.

Type location: Humboldt County, Nevada; approximately .25 mile from the top of Winnemucca Mountain about 500 feet west and 1,500 feet north of southeast corner of section 11, T. 36 N., R. 37 E.; (41 degrees, 00 minutes,

28 seconds north latitude and 117 degrees, 46 minutes, 29 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist late winter and spring; dry from late July through late October.

Soil temperature: 42 to 47 degrees F.

Mollic epipedon thickness: 20 to 30 inches.

Depth to 2Bq horizons: 20 to 30 inches.

Profile reaction: Neutral or slightly alkaline.

Control section:

Clay content--Averages 18 to 27 percent.

Rock fragments--Averages 35 to 60 percent, mainly pebbles.

Sand content--Averages less than 25 percent sand coarser than very fine sand.

A and AB horizons:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--1 through 3.

2Bq horizons:

Hue--10YR or 2.5Y.

Value--5 or 6 dry, 3 or 4 moist.

Chroma--3 or 4. If value is 5 dry and 3 moist, chromas are more than 3.

Texture--Gravelly loam, very gravelly loam, or very gravelly silt loam. Subhorizons of some pedons are extremely gravelly loam or extremely gravelly clay loam.

Rock fragments--35 to 60 percent, mainly pebbles.

Structure--Subangular blocky or the horizon is massive.

Consistence--Soft or slightly hard, dry; in some pedons subhorizons below 40 inches are hard when dry.

Silica cementation--1 to 15 percent durinodes or continuous brittle matrix with masses and lenses. Volume of silica cementation, pendants, or durinodes increases to over 15 percent below depths of 40 inches in most pedons.

Clurde series

The Clurde series consists of very deep, well drained soils that formed in loess and volcanic ash over alluvium from mixed rock sources. Clurde soils are on fan skirts and inset fans. Slopes are 0 to 2 percent. The mean annual precipitation is

about 9 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Fine-loamy, mixed, mesic
Durixerollic Camborthids

Typical pedon: Clurde loam, in an area of map unit 1600. (Colors are for dry soil unless otherwise noted.)

Ap--0 to 5 inches; light brownish gray (10YR 6/2) loam, very dark grayish brown (10YR 3/2) moist; moderate thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine vesicular pores; slightly alkaline; abrupt smooth boundary.

A--5 to 8 inches; light brownish gray (10YR 6/2) silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine interstitial and vesicular pores; slightly alkaline; abrupt wavy boundary.

Bw--8 to 16 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine tubular pores; moderately alkaline; abrupt smooth boundary.

Bq--16 to 22 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; moderate medium platy structure; hard, firm, and brittle, slightly sticky and slightly plastic; few very fine roots; common very fine tubular pores; 5 percent pebbles; continuous brittle matrix; moderately alkaline; clear wavy boundary.

Bqk1--22 to 33 inches; brown (10YR 5/3) clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; hard, friable, sticky and plastic; few very fine and fine roots; many very fine interstitial and tubular pores; many thin waxy silica coats on faces of peds; 30 percent durinodes; common medium soft filaments of lime; violently effervescent; 5 percent pebbles; moderately alkaline; clear wavy boundary.

2Bqk2--33 to 60 inches; brown (10YR 5/3) sandy clay loam, brown (10YR 4/3) moist; massive; hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine tubular and interstitial pores; 20 percent

durinodes; few fine soft filaments of lime; violently effervescent; 10 percent pebbles; moderately alkaline.

Type location: Humboldt County, Nevada; about 3.5 miles southeast of the Kings River Ranch headquarters; approximately 200 feet north and 100 west of the southeast corner, section 35, T. 46 N., R. 33 E.; (41 degrees, 49 minutes, 06 seconds north latitude and 118 degrees, 13 minutes, 33 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods throughout the moisture control section December through March.

Soil temperature: 47 to 52 degrees F.

Depth to base of Bw horizon: 10 to 20 inches.

Depth to carbonates: 10 to 24 inches.

Control section:

Clay content--18 to 30 percent.

A horizons:

Value--4 through 7 dry, 3 or 4 moist; layers with value of 4 or 5 dry and 3 moist are less than 7 inches thick.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bw horizon:

Texture--Clay loam, loam, silt loam.

Clay content--18 to 30 percent

Rock fragments--0 to 15 percent, mainly pebbles.

Structure--Weak or moderate, fine or medium subangular blocky.

Consistence--Slightly hard or hard, dry; friable or very friable, moist; slightly sticky or sticky and slightly plastic or plastic, wet.

Reaction--Moderately alkaline or strongly alkaline.

Bq and Bqk horizons:

Value--5 through 7 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Stratified gravelly sandy loam to clay loam.

Clay content--Average 15 to 27 percent.

Rock fragments--5 to 30 percent, mainly pebbles.

Structure--Weak or moderate subangular blocky or platy or is massive.

Consistence--Friable or firm, moist; nonsticky to sticky and nonplastic to plastic, wet
 Reaction--Moderately alkaline to very strongly alkaline.

2Bqk horizon:

Effervescence--Slightly effervescent to violently effervescent.

Cementation--20 to 60 percent durinodes. Thin layers with continuous weak cementation are in some pedons.

Other features--Thin Bq horizons are above Bqk horizons in some pedons.

Connel series

The Connel series consists of very deep, well drained soils that formed in loess with a component of volcanic ash over alluvium from mixed rocks sources. The Connel soils are on beach terraces, intermittent drainage channels, lagoons, stream terraces, fan skirts, inset fans, and fan remnants. Slopes are 0 to 8 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Coarse-loamy over sandy or sandy-skeletal, mixed, mesic Durixerollic Camborthids

Typical pedon: Connel very fine sandy loam, in an area of map unit 255. (Colors are for dry soil unless otherwise noted.)

A1--0 to 3 inches; light brownish gray (10YR 6/2) very fine sandy loam, dark grayish brown (10YR 4/2) moist; weak thin platy structure; soft, very friable, nonsticky and nonplastic; few very fine roots; many fine and medium vesicular pores; slightly alkaline; abrupt smooth boundary.

A2--3 to 6 inches; pale brown (10YR 6/3) silt loam, dark grayish brown (10YR 4/2) moist; moderate thin and medium platy structure; soft, very friable, nonsticky and nonplastic; common very fine and fine roots; many very fine and fine interstitial pores; slightly alkaline; abrupt wavy boundary.

Bw--6 to 14 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; weak medium and coarse subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine, fine, few medium and coarse roots;

many very fine interstitial and common very fine tubular pores; moderately alkaline; clear wavy boundary.

Bq--14 to 20 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; massive; very hard, firm and brittle, nonsticky and nonplastic; common very fine and few fine, medium and coarse roots; many very fine interstitial and common very fine tubular pores; 10 percent pebbles; continuous brittle matrix; strongly alkaline; clear wavy boundary.

2Bqk--20 to 25 inches; light brownish gray (10YR 6/2) very gravelly loamy sand, dark grayish brown (10YR 4/2) moist; massive; hard, firm, nonsticky and nonplastic; few very fine, fine and medium roots; many fine interstitial pores; common lime coatings on pebbles; 40 percent pebbles; continuous brittle matrix; strongly effervescent; very strongly alkaline; abrupt irregular boundary.

2Bk--25 to 60 inches; grayish brown (10YR 5/2) extremely gravelly loamy coarse sand, dark grayish brown (10YR 4/2) moist; single grain; loose, nonsticky and nonplastic; few very fine roots; many fine and medium interstitial pores; common lime coatings on pebbles and cobbles; strongly effervescent; 65 percent pebbles and 15 percent cobbles; very strongly alkaline.

Type location: Humboldt County, Nevada; approximately 3 miles north and 1 mile west of Orovada, about 700 feet south and 500 feet east of the northwest corner of section 15, T. 43 N., R. 37 E.; (41 degrees, 36 minutes, 40 seconds north latitude and 117 degrees, 48 minutes, 22 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist winter and spring, dry from June through October.

Soil temperature: 47 to 52 degrees F.

Depth to unconformable gravel and sand: 20 to 35 inches.

Depth to continuous brittle matrix: 10 to 20 inches.

Depth to carbonates: 18 to 30 inches.

Control section:

Clay content--Upper part is 12 to 18 percent, lower part is 2 to 8 percent.

Rock fragments--Upper part is less than 15 percent pebbles, lower part is 40 to 80 percent mainly pebbles with 0 to 20 percent cobbles.

A horizons:

Hue--10YR or 2.5Y.
 Value--5 or 6 dry, 3 or 4 moist.
 Chroma--2 or 3.
 Reaction--Neutral to moderately alkaline.

Bw horizon:

Hue--10YR or 2.5Y.
 Value--6 or 7 dry, 4 or 5 moist.
 Chroma--2 or 3.
 Texture--Very fine sandy loam, loam or silt loam.
 Structure--Angular blocky, subangular blocky or prismatic.
 Reaction--Slightly alkaline or moderately alkaline.

Bq horizon:

Reaction--Moderately alkaline to very strongly alkaline.

2Bqk and 2Bk horizons:

Hue--Variable, reflects lithochromic colors of the mineral grains.
 Value--Variable, reflects lithochromic colors of the mineral grains.
 Chroma--1 through 4.
 Texture--Very gravelly or extremely gravelly sand, coarse sand, loamy sand, or loamy coarse sand.
 Clay content--2 to 8 percent.
 Rock fragments--40 to 80 percent pebbles with 0 to 20 percent cobbles.
 Reaction--Moderately alkaline to very strongly alkaline.
 Effervescence--Slightly effervescent or strongly effervescent.
 Calcium carbonate equivalent--Has less than 5 percent in any subhorizon within 40 inches.
 Other features--The Bqk horizon has a continuous brittle matrix with some subhorizons of some pedons that contain more than 20 percent durinodes in a discontinuously cemented brittle matrix.

Cotant series

The Cotant series consists of shallow, well drained soils that formed in residuum and colluvium from welded tuff, rhyolite and mixed sedimentary rocks. Cotant soils are on mountains. Slopes are 2 to 30 percent. The mean annual precipitation is about 14

inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Clayey, montmorillonitic, frigid shallow Aridic Argixerolls

Typical pedon: Cotant gravelly loam, 15 to 30 percent slopes, in an area of map unit 1151. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles and 5 percent cobbles.

A--0 to 3 inches; brown (10YR 5/3) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate very thin platy structure; soft, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine and common fine vesicular pores; 15 percent pebbles; slightly alkaline; abrupt smooth boundary.

Bt1--3 to 7 inches; brown (10YR 5/3) gravelly clay loam, dark brown (10YR 3/3) moist; strong very fine and fine angular blocky structure; hard, friable, sticky and plastic; few very fine and fine roots; common very fine tubular pores; few thin clay films lining pores; 15 percent pebbles; slightly alkaline; abrupt smooth boundary.

Bt2--7 to 19 inches; yellowish brown (10YR 5/4) clay, brown (10YR 4/3) moist; strong fine and medium angular blocky structure; hard, firm, sticky and very plastic; common very fine roots; few very fine tubular pores; many thin clay films lining pores and coating faces of peds; 10 percent pebbles; slightly alkaline; clear wavy boundary.

Cr--19 inches; weathered igneous rock; common thin clay films coating the surface and in fractures.

Type location: Humboldt County, Nevada; about 3 miles east of Grand Trunk Canyon; approximately 550 feet north and 2,000 feet east of the southwest corner of section 26, T. 33 N., R. 39 E.; (40 degrees, 41 minutes, 59 seconds north latitude and 117 degrees, 33 minutes, 37 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually moist; moist in winter and spring, dry July through October.

Soil temperature: 42 to 47 degrees F.

Mollic epipedon thickness: 7 to 14 inches,

including upper part of argillic horizon.

Solum thickness and depth to paralithic contact:

12 to 20 inches.

Profile reaction: Neutral or slightly alkaline.

A horizon:

Value--5 or 6 dry (5.5 or darker after mixing the surface 7 inches)

Chroma--2 or 3.

Bt horizons:

Value--4 through 6 dry, 3 through 5 moist. The upper subhorizon is 4 or 5 dry and 3 moist.

Chroma--2 through 4, with 4 only in the lower subhorizons.

Texture--Dominantly clay, gravelly clay or gravelly clay loam common in some subhorizons.

Clay content--40 to 60 percent.

Rock fragments--0 to 15 percent, mainly pebbles; up to 25 percent common in some subhorizons.

Structure--Prismatic, angular blocky or subangular blocky.

Other features--Darker crushed matrix values common in upper part of horizon.

Consistence--Friable or firm, moist; sticky or very sticky and plastic or very plastic, wet.

Cr horizon:

Clay films--Some pedons lack clay films.

Cresal series

The Cresal series consists of very deep, well drained soils that formed in loess high in volcanic ash over lacustrine sediments. Cresal soils are on lake plains. Slopes are 0 to 2 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 51 degrees F.

Taxonomic class: Coarse-silty, mixed (calcareous), mesic Durorthidic Torriorthents

Typical pedon: Cresal silt loam, 0 to 2 percent slopes, in an area of map unit 1210. (Colors are for dry soil unless otherwise noted.)

A1--0 to 1 inch; light gray (10YR 7/2) silt loam, grayish brown (10YR 5/2) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine through coarse vesicular

pores; strongly effervescent; strongly alkaline; abrupt smooth boundary.

A2--1 to 3 inches; light gray (10YR 7/2) silt loam high in volcanic ash, grayish brown (10YR 5/2) moist; weak coarse prismatic structure parting to moderate thin platy; hard, friable, sticky and slightly plastic; few very fine and fine roots impeded; common very fine through coarse vesicular pores; strongly effervescent; strongly alkaline; abrupt smooth boundary.

A3--3 to 6 inches; light gray (10YR 7/2) silt loam, grayish brown (10YR 5/2) moist; weak coarse prismatic structure parting to moderate thin platy; soft, very friable, slightly sticky and slightly plastic; common very fine, few fine, and medium roots; many very fine and common fine interstitial and tubular pores; strongly effervescent; strongly alkaline; abrupt smooth boundary.

Bqk1--6 to 13 inches; light gray (10YR 7/2) silt loam, grayish brown (10YR 5/2) moist; few fine distinct yellow (10YR 7/6) relic mottles, yellowish brown (10YR 5/6) moist; weak coarse prismatic structure parting to weak medium subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine tubular pores; common faint silica coats and bridges on sand grains and lining pores; 60 percent very weakly cemented thin platelike lenses with common fine horizontal lime seams on surfaces; violently effervescent; strongly alkaline; clear wavy boundary.

Bqk2--13 to 19 inches; light gray (10YR 7/2) silt loam, grayish brown (10YR 5/2) moist, few fine prominent brownish yellow (10YR 6/8) relic mottles in bands and spots, yellowish brown (10YR 5/8) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine, fine tubular pores; 20 percent weakly cemented durinodes with common fine horizontal lime seams on surfaces; violently effervescent; strongly alkaline; abrupt wavy boundary.

Bky--19 to 21 inches; light gray (10YR 7/2) silt loam, grayish brown (10YR 5/2) moist, many coarse prominent brownish yellow (10YR 6/8) relic mottles in bands, 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; few fine filaments of gypsum; common fine filaments of lime; violently effervescent; moderately alkaline; abrupt wavy boundary.

- Cy1--21 to 38 inches; pale brown (10YR 6/3) stratified loamy very fine sand to silt loam, brown (10YR 4/3) moist, few fine prominent brownish yellow (10YR 6/8) relic mottles in bands, yellowish brown (10YR 5/8) moist; massive; soft, very friable, nonsticky and slightly plastic; few very fine roots; common very fine and fine tubular pores; few fine gypsum filaments; slightly effervescent; moderately alkaline; abrupt wavy boundary.
- Cy2--38 to 60 inches; pale brown (10YR 6/3) stratified loamy very fine sand to silt loam with few thin (less than 1 inch) bands of ash, brown (10YR 4/3) moist, few fine and medium prominent brownish yellow (10YR 6/8) relic mottles in bands, yellowish brown (10YR 5/8) moist; massive; soft, very friable, nonsticky and slightly plastic; few very fine roots; common very fine tubular and interstitial pores; few fine gypsum filaments; strongly effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 1/2 mile northeast of Venado in an unsectionized area; about 1.25 miles west and 0.4 miles south of the northwest corner of section 6, T. 35 N., R. 34 E.; (40 degrees, 56 minutes, 20 seconds north latitude and 118 degrees, 14 minutes, 22 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods in the winter and spring, dry May through early November.

Soil temperature: 53 to 57 degrees F.

Depth to the Bqk horizon: 4 to 9 inches.

Depth to Lacustrine sediments: 10 to 20 inches.

Profile reaction: Moderately alkaline or strongly alkaline.

Control section:

Clay content--8 to 15 percent.

Other features--Gypsum: Fine filaments and soft masses of gypsum are below 10 inches in some pedons.

A horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Bqk horizons:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 4 or 5 moist.

Chroma--2 or 3.

Texture--Stratified silt loam and very fine sandy loam.

Clay content--8 to 15 percent.

Structure--Prismatic, platy or is massive.

Consistence--Slightly hard, hard or very hard dry, very friable, friable or firm moist.

Relict mottles--None to many in any subhorizon.

Cementation--The upper subhorizon is very weakly cemented with silica coats and bridges on ped surfaces and commonly contains durinodes. Some subhorizon within 20 inches, has 20 to 40 percent weak or moderately strong durinodes.

Sodicity--Slightly to strongly sodic affected.

C horizons:

Hue--10YR or 2.5Y dry or moist, moist hue of 5Y is common in some pedons.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Stratified silt loam to very fine sand. Thin lenses of volcanic ash are common in any subhorizon.

Clay content--8 to 18 percent.

Rock fragments--Up to 5 percent pebbles are common in any subhorizon.

Structure--Platy or it is massive.

Consistence--Soft to hard dry, very friable or friable, moist; nonsticky or slightly sticky, wet.

Sodicity--Slightly to strongly sodic affected.

Other features--Some pedons commonly have a strata of silty clay loam below a depth of 40 inches.

Croesus series

The Croesus series consists of moderately deep, well drained soils that formed in residuum and colluvium from rhyolite and dacite. Croesus soils are on mountains. Slopes are 4 to 75 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 42 degrees F.

Taxonomic class: Loamy-skeletal, mixed Pachic Cryoborolls

Typical pedon: Croesus stony loam, 8 to 30 percent slopes in an area of map unit 1521. (Colors are for dry soil unless otherwise noted.)

The soil surface is partially covered with 40 percent fine pebbles and 1 percent stones.

A1--0 to 3 inches; dark grayish brown (10YR 4/2) stony loam, black (10YR 2/1) moist; moderate fine subangular blocky structure parting to moderate fine granular; soft, very friable, nonsticky and slightly plastic; many very fine roots; many very fine interstitial pores; 40 percent pebbles, 1 percent stones; slightly acid; abrupt smooth boundary.

A2--3 to 9 inches; dark grayish brown (10YR 4/2) very gravelly loam, black (10YR 2/1) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine interstitial and tubular pores; 50 percent pebbles; neutral; clear smooth boundary.

A3--9 to 16 inches; dark grayish brown (10YR 4/2) very gravelly loam, black (10YR 2/1) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine interstitial and tubular pores; 50 percent pebbles and 5 percent cobbles; neutral; clear smooth boundary.

A4--16 to 25 inches--brown (10YR 5/3) extremely gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; soft very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine interstitial and tubular pores; 50 percent pebbles and 10 percent cobbles; neutral; clear wavy boundary.

A5--25 to 33 inches--brown (10YR 5/3) extremely gravelly loam, very dark grayish brown (10YR 3/2) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine interstitial and tubular pores; 65 percent pebbles and 5 percent cobbles; retains about 50 percent of the original rock structure with weathered material in fractures and thick vertical lenses; neutral; clear wavy boundary.

R--33 inches; fractured bedrock; few fine roots in fractures.

Type location: Humboldt County, Nevada, about 10 miles north of the Kings River Ranch headquarters, 20 feet south and 800 feet west of the northeast corner of section 3, T. 47 N., R. 33 E.; (41 degrees, 59 minutes, 49 seconds

north latitude and 118 degrees, 14 minutes, 49 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually moist; dry from 60 to 90 days from August to October

Soil temperature: 42 to 45 degrees F.

Summer soil temperature: 52 to 59 degrees F.

Mollic epipedon thickness: 20 to 40 inches.

Depth to bedrock: 20 to 40 inches.

Control section:

Clay content--10 to 18 percent

Rock fragment--40 to 70 percent, mainly pebbles.

A horizons:

Hue--7.5YR or 10YR

Value--4 or 5 dry; 2 or 3 moist.

Chroma--1 through 3

Reaction--Slightly acid through slightly alkaline, increasing with depth.

Other features--Few lime coats under rock are absent in the lower subhorizons in some pedons.

Dacker series

The Dacker series consists of moderately deep over a duripan, well drained soils that formed in silty alluvium from mixed rock sources with a component of loess and volcanic ash. Dacker soils are on fan remnants and plateaus. Slopes are 0 to 15 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Fine-loamy, mixed, mesic, Xerollic Durargids

Typical pedon: Dacker very fine sandy loam, 2 to 4 percent slopes, in an area of map unit 780. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light brownish gray (10YR 6/2) very fine sandy loam, very dark grayish brown (10YR 3/2) moist; moderate medium platy structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine vesicular pores; 2 percent pebbles; slightly alkaline; abrupt smooth boundary.

A2--2 to 7 inches; pale brown (10YR 6/3) silt loam, dark brown (10YR 3/3) moist; moderate thin platy structure; soft, very friable, sticky and slightly plastic; many very fine and fine roots; many very fine and fine tubular and interstitial pores; slightly alkaline; abrupt smooth boundary.

Bt1--7 to 15 inches; pale brown (10YR 6/3) silty clay loam, dark brown (10YR 3/3) moist; weak medium prismatic structure parting to moderate medium subangular blocky; slightly hard, friable, sticky and slightly plastic; many very fine, common fine and few medium roots; many very fine tubular and common very fine interstitial pores; few thin clay films on faces of peds; 5 percent pebbles and 3 percent cobbles; moderately alkaline; clear wavy boundary.

Bt2--15 to 18 inches; pale brown (10YR 6/3) silty clay loam, brown (10YR 4/3) moist; weak medium prismatic structure parting to moderate medium subangular blocky; hard, friable, sticky and plastic; common very fine and fine roots; common very fine tubular pores; common thin clay films on faces of peds and lining pores; 5 percent pebbles and 3 percent cobbles; moderately alkaline, clear wavy boundary.

Bqk--18 to 22 inches; very pale brown (10YR 7/3) gravelly loam, brown (10YR 4/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine tubular and interstitial pores; 30 percent indurated silica-lime cemented fragments; strongly effervescent; 15 percent pebbles and 3 percent cobbles; moderately alkaline; abrupt smooth boundary.

Bqkm--22 inches; white (10YR 8/2) indurated duripan, very pale brown (10YR 7/4) moist; massive; very rigid; many roots matted on the surface.

Type location: Humboldt County, Nevada; in an unsectionized area approximately 1 mile north of Button Lake in northeast Humboldt County; (41 degrees, 41 minutes, 28 seconds north latitude and 117 degrees, 00 minutes, 56 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in the winter and spring, dry June through October.

Soil temperature: 47 to 52 degrees F.

Combined thickness of A and Bt: 17 to 25 inches.

Depth to carbonates: 15 to 25 inches.

Depth to duripan: 20 to 35 inches.

Other features: Very gravelly loamy sand substratums are common in some pedons below a depth of 40 inches.

Control section:

Clay content--27 to 35 percent.

Rock fragments--5 to 35 percent, mainly pebbles.

A horizons:

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bt horizons:

Value--5 through 7 dry, 3 through 5 moist.

Chroma--3 or 4.

Texture--Upper subhorizon is silty clay loam or gravelly silty clay loam. Lower subhorizon is silt loam, silty clay loam or gravelly silt loam.

Clay content--Upper subhorizons 27 to 35 percent, lower subhorizons 25 to 33 percent.

Rock fragments--Upper subhorizons 5 to 20 percent, lower subhorizons 5 to 35 percent.

Structure--Prismatic parting to subangular blocky, may be massive in the lower part.

Consistence--Usually hard, slightly hard in subhorizons, slightly sticky or sticky and slightly plastic or plastic, wet.

Reaction--Slightly alkaline or moderately alkaline.

Bqk horizon:

Value--6 or 7 dry, 3 through 5 moist.

Chroma--3 or 4.

Texture--Silt loam or loam some pedons have gravelly silt loam, or gravelly loam.

Clay content--20 to 25 percent.

Consistence--Very friable or friable, moist; slightly plastic or plastic, wet.

Rock fragments--5 to 35 percent, mainly pebbles.

Other features--20 to 50 percent, 5 to 30 millimeter durinodes or pan fragments.

Bqkm horizon:

Value--7 or 8 dry, 5 through 7 moist.

Chroma--2 through 4.

Other features--Commonly has variable thickness of alternating layers of weak, strong or indurated silica-lime cemented material below.

Davey series

The Davey series consists of very deep, somewhat excessively drained soils that formed in alluvium from mixed rock sources. Davey soils are on sand sheets, lagoons and fan skirts. Slopes are 0 to 15 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Sandy, mixed, mesic Xerollic Camborthids

Typical pedon: Davey loamy fine sand, 0 to 2 percent slopes, in an area of map unit 202. (Colors are for dry soil unless otherwise noted.)

A--0 to 5 inches; light gray (10YR 6/1) loamy fine sand, very dark grayish brown (10YR 3/2) moist; weak medium platy structure; soft, very friable, nonsticky and nonplastic; common very fine roots; many very fine interstitial pores; neutral; abrupt smooth boundary.

Bw--5 to 14 inches; light brownish gray (10YR 6/2) fine sandy loam, dark grayish brown (10YR 4/2) moist; weak medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine and few fine roots; many very fine and few fine interstitial pores; neutral; clear smooth boundary.

C--14 to 24 inches; light brownish gray (10YR 6/2) fine sand, dark grayish brown (10YR 4/2) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine interstitial pores; slightly alkaline; clear smooth boundary.

Ck--24 to 67 inches; light brownish gray (2.5Y 6/2) fine sand, dark grayish brown (2.5Y 4/2) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine interstitial pores; lime is disseminated; strongly effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 3 miles north of Orovida and 2.25 miles northwest on an angling road about 2,400 feet west and 200 feet south of the northeast corner of section 9, T. 43 N., R. 37 E.; (41 degrees, 37 minutes, 38 seconds north latitude and 117 degrees, 49 minutes, 02 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring; dry May through October.

Soil temperature: 47 to 53 degrees F.

Thickness of A and Bw horizons: 11 to 23 inches.

Depth to lime: 11 to 24 inches.

Control section:

Clay content--5 to 10 percent.

Rock fragments--Up to 30 percent in any one horizon but average is less than 15 percent. Gypsum--Gypsum crystals are below a depth of 20 inches in some pedons.

Cementation--Continuous weak or strong silica cemented horizons are below a depth of 50 inches in some pedons.

Other features--Unconformable very fine sandy loam or silt loam strata occur below a depth of 40 inches in some pedons.

A horizon:

Hue--10YR or 2.5Y.

Value--5 through 7 dry (greater than 5.5 when the surface 7 inches are mixed), 3 through 6 moist.

Chroma--1 through 3.

Reaction--Neutral or slightly alkaline.

Bw horizon:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 to 4.

Texture--Fine sandy loam, sandy loam in some pedons having subhorizons that are gravelly sandy loam.

Structure--Prismatic, subangular blocky or it is massive.

Reaction--Neutral through moderately alkaline.

C and Ck horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 through 6 moist.

Chroma--2 to 4.

Texture--Fine sand, loamy fine sand, loamy sand, but thin strata of fine sandy loam or coarse sand are in some pedons.

Reaction--Slightly alkaline to strongly alkaline.

Carbonates--Slightly effervescent to violently effervescent in the Ck horizon. Segregated lime occur as few or common filaments or as partial coats on rock fragments or lime is disseminated.

Cementation--Up to 10 percent weakly cemented durinodes are below a depth of 20 inches in some pedons.

Mottles--Relict mottles occur below 40 inches in some pedons.

Delvada series

The Delvada series consists of very deep, very poorly drained soils that formed in alluvium from mixed rock sources. Delvada soils are on flood plains and stream terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine, montmorillonitic (calcareous), mesic Cumulic Endoaquolls

Typical pedon: Delvada silty clay, in an area of map unit 1570. (Colors are for moist soil unless otherwise noted.)

Ap--0 to 6 inches; black (10YR 2/1) silty clay, variegated dark grayish brown (10YR 4/2) and very dark gray (10YR 3/1) dry; moderate medium platy structure; very hard, firm, sticky and very plastic; many very fine, fine, and few medium roots; many very fine and fine tubular pores; many worm channels and casts; strongly alkaline; clear smooth boundary.

Ag1--6 to 13 inches; black (10YR 2/1) silty clay, variegated grayish brown (10YR 5/2) and very dark gray (10YR 3/1) dry; moderate medium prismatic structure parting to moderate medium subangular blocky; hard, friable, very sticky and very plastic; many very fine, fine and few medium roots; many very fine and fine tubular pores; many worm channels and casts; slightly effervescent; strongly alkaline; clear wavy boundary.

Ag2--13 to 17 inches; black (10YR 2/1) silty clay, gray (10YR 5/1) dry; few fine prominent yellowish brown (10YR 5/6) mottles; moderate medium prismatic structure parting to moderate medium subangular blocky; hard, friable, very sticky and very plastic; common very fine, fine and medium roots; many very fine and fine tubular pores; many worm channels and casts; slightly effervescent; strongly alkaline; clear wavy boundary.

Ag3--17 to 29 inches; black (10YR 2/1) silty clay, gray (10YR 5/1) dry, few fine prominent dark

reddish brown (5YR 3/4) and dark brown (7.5YR 4/4) mottles; strong coarse prismatic structure parting to moderate medium subangular blocky; hard, firm, very sticky and very plastic; common very fine and fine roots; many very fine and fine tubular pores; common fine and medium dark iron and manganese stains; many worm channels and casts; few fine soft violently effervescent lime filaments; slightly effervescent matrix; moderately alkaline; clear wavy boundary.

CBkg--29 to 55 inches; variegated dark grayish brown (2.5Y 4/2) and very dark grayish brown (2.5Y 3/2) silty clay, gray (10YR 6/1) dry; weak coarse prismatic structure parting to moderate medium subangular blocky; hard, firm, very sticky and very plastic; few very fine and fine roots; many very fine and fine tubular pores; common thin silt coats lining pores; many worm channels and casts; many fine through coarse black (10YR 2/1) manganese stains in irregular pattern; common fine black (10YR 2/1) manganese concretions; common fine soft violently effervescent lime filaments; slightly effervescent matrix; moderately alkaline; gradual wavy boundary.

2Cg--55 to 60 inches; dark grayish brown (2.5Y 4/2) silty clay loam, gray (10YR 6/1) dry; massive; hard, friable, sticky and plastic; many very fine, fine, and common medium tubular pores; slightly effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 1 mile west and 12 miles south of Paradise Valley, NV; about 2,490 feet south and 2,490 feet east of the northwest corner of section 26 T. 40 N., R. 39 E.; (41 degrees, 19 minutes, 00 seconds north latitude and 117 degrees, 33 minutes, 10 seconds west longitude.)

Range in characteristics:

Soil moisture: Saturated at or near the soil surface for 1 to 3 months; continuously saturated within 60 inches. Drained phases are recognized.

Soil temperature: 47 to 52 degrees F

Mollic epipedon thickness: 24 to 40 inches.

Depth to effervescence: 0 to 8 inches.

Control section:

Clay content--40 to 50 percent.

Sand content--Less than 15 percent.

Salinity--2 to over 16 millimhos per centimeter.

A horizons:

Hue--10YR or 2.5Y.
 Value--3 through 5 dry, 2 or 3 moist.
 Chroma--1 or 2
 Reaction--Moderately alkaline through very strongly alkaline.
 Mottles--Distinct or prominent mottles are common in the lower subhorizons of most pedons.
 Other features--Worm casts are common in upper profile.

Ck horizon:

Hue--10YR or 2.5Y.
 Value--6 or 7 dry, 3 through 5 moist.
 Chroma--1 or 2.
 Structure--Prismatic or subangular blocky.
 Consistence--Friable or firm, moist.
 Reaction--Moderately alkaline to very strongly alkaline.
 Manganese concretions--Common in most pedons.
 Mottles--Few to many, faint or distinct mottles are common in some pedons.

2C horizon:

Hue--2.5Y or 10YR.
 Value--6 or 7 dry, 3 through 5 moist.
 Chroma--1 or 2.
 Texture--Silty clay or silty clay loam.
 Clay content--30 to 50 percent.
 Consistence--Firm or friable, moist.
 Mottles--Few, fine distinct mottles are common in some pedons.

Devada series

The Devada series consists of shallow, well drained soils that formed in residuum from volcanic rock with additions of loess and volcanic ash. Devada soils are on plateaus, hills, and mountains. Slopes are 2 to 50 percent. The mean annual precipitation is about 10 inches and the mean annual temperature is about 45 degrees F.

Taxonomic class: Clayey, montmorillonitic, mesic Lithic Argixerolls

Typical pedon: Devada very gravelly loam, 2 to 8 percent slopes, in an area of map unit 673. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 45 percent pebbles and 2 percent cobbles.

A1--0 to 2 inches; light brownish gray (10YR 6/2) very gravelly loam, dark brown (10YR 3/3) moist; moderate medium platy structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine tubular and vesicular pores; 40 percent pebbles and 2 percent cobbles; neutral; abrupt smooth boundary.

A2--2 to 5 inches; grayish brown (10YR 5/2) gravelly silt loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure parting to moderate fine granular; slightly hard, very friable, slightly sticky and plastic; common very fine and fine roots; many very fine tubular and interstitial pores; 25 percent pebbles and 1 percent cobbles; neutral; abrupt smooth boundary.

E/B--5 to 8 inches; grayish brown (10YR 5/2) gravelly silty clay loam, dark brown (10YR 3/3) moist, common thin light brownish gray (10YR 6/2) clean sand grains coating faces of peds; moderate fine subangular blocky structure; hard, friable, sticky and plastic; common very fine, fine, and few medium roots; many very fine and fine tubular pores; few thin clay films lining pores; 25 percent pebbles and 3 percent cobbles; neutral; abrupt wavy boundary.

2Bt--8 to 14 inches; brown (10YR 5/3) clay, dark brown (10YR 3/3) moist; strong fine prismatic structure parting to strong fine angular blocky; very hard, firm, very sticky and very plastic; common very fine roots; common very fine tubular pores; many moderately thick clay films lining pores; common thick pressure faces on peds; 10 percent pebbles and 2 percent cobbles; neutral; abrupt wavy boundary.

2Btq--14 to 17 inches; light yellowish brown (10YR 6/4) clay loam, brown (10YR 4/3) moist; moderate fine angular blocky structure; hard, firm, sticky and plastic; common very fine roots; common very fine tubular pores; common moderately thick clay films lining pores and coating faces of peds; common thin silica coats on faces of peds; 5 percent 1 to 5 mm wide indurated lenses of opal; 10 percent pebbles; slightly alkaline; abrupt wavy boundary.

3R--17 inches; hard andesite bedrock; silica and weathered rock in fractures; very thin discontinuous silica cap on the rock surface.

Type location: Humboldt County, Nevada; approximately 1 mile northwest of Coffee Spring in an unsectionized area of T. 43 N., R. 41 E.; (41 degrees, 37 minutes, 05 seconds

north latitude and 117 degrees, 18 minutes, 51 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry in summer through late fall.

Soil temperature: 47 to 53 degrees.

Mollic epipedon: 7 to 20 inches thick, includes all or part of the argillic horizon.

Combined thickness of A and Bt horizons: 12 to 20 inches.

Depth to bedrock: 12 to 20 inches.

Control section:

Clay content--40 to 60 percent.

Rock fragments--0 to 30 percent, mainly pebbles.

A horizons:

Value--4 or 5 dry, 2 or 3 moist. Some pedons have a thin surface layer with value of 6 dry, but when the upper 7 inches are mixed, value is less than 5.5 dry.

Chroma--2 or 3.

Reaction--Slightly acid to slightly alkaline.

Bt horizons:

Hue--5YR, 7.5YR or 10YR.

Value--4 through 6 dry, 3 or 4 moist.

Chroma--2 through 4.

Texture--Dominantly clay or gravelly clay, commonly with thin subhorizons of clay loam.

Structure--Prismatic, angular blocky or subangular blocky.

Reaction--Neutral or slightly alkaline.

Dewar series

The Dewar series consists of shallow to a duripan, well drained soils that formed in loess and silty alluvium from mixed rock sources with some influence from volcanic ash. Dewar soils are on plateaus and fan remnants. Slopes are 0 to 15 percent. Mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow Xerollic Durargids

Typical pedon: Dewar gravelly very fine sandy loam, 4 to 15 percent slopes, located in an area

of map unit 726. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with about 15 percent pebbles.

A1--0 to 3 inches; pale brown (10YR 6/3) gravelly very fine sandy loam, brown (10YR 4/3) moist; moderate thin platy structure; soft, very friable, nonsticky and slightly plastic; few very fine and fine roots; many very fine vesicular pores; 20 percent pebbles and 2 percent cobbles; moderately alkaline; abrupt smooth boundary.

A2--3 to 5 inches; pale brown (10YR 6/3) gravelly very fine sandy loam, brown (10YR 4/3) moist; moderate thin platy structure; slightly hard, very friable, nonsticky and slightly plastic; common very fine and fine roots; many very fine and fine vesicular pores; 20 percent pebbles and 2 percent cobbles; moderately alkaline; abrupt smooth boundary.

Bt--5 to 10 inches; pale brown (10YR 6/3) gravelly clay loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine, fine and medium roots; common very fine and fine interstitial and tubular pores; few thin clay films on faces of peds and lining pores; 15 percent pebbles and 2 percent cobbles; moderately alkaline; clear smooth boundary.

Btqk--10 to 15 inches; yellowish brown (10YR 5/4) gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure; hard, friable, sticky and plastic; common very fine, fine and medium roots; many very fine and fine interstitial and tubular pores; few moderately thick clay films on faces of peds and lining pores; few thin pendants of lime and silica on coarse fragments; strongly effervescent; 30 percent pebbles and 2 percent cobbles; moderately alkaline; abrupt smooth boundary.

Bqkm1--15 to 31 inches; white (10YR 8/2) indurated duripan, light yellowish brown (10YR 6/4) moist; massive; very rigid; violently effervescent; clear smooth boundary.

Bqkm2--31 to 60 inches; white (10YR 8/2) strongly cemented duripan, light yellowish brown (10YR 6/4) moist; massive; extremely hard and slightly rigid; many very fine and fine interstitial pores; common weakly cemented lenses of stratified extremely gravelly loamy sand and sandy loam; violently effervescent; 60 percent pebbles and 5 percent cobbles; very strongly alkaline.

Type location: Humboldt County, Nevada; approximately 5 miles east of Paradise Valley; about 2,375 feet south and 1,200 feet west of the northeast corner of section 34 T. 42 N., R. 40 E.; (41 degrees, 28 minutes, 38 seconds north latitude and 117 degrees, 26 minutes, 47 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry early June through October.

Soil temperature: 47 to 52 degrees F.

Depth to indurated duripan: 14 to 20 inches.

Reaction: A and Bt horizons are neutral to moderately alkaline.

Control section:

Clay content--27 to 35

Rock fragments--15 to 35 percent dominantly pebbles

A horizons:

Value--3 or 4 moist.

Chroma--2 or 3.

Bt horizon:

Value--6 through 7 dry, 3 or 4 moist.

Chroma--2 through 4 dry, 3 or 4 moist.

Texture--Gravelly silty clay loam or gravelly clay loam.

Clay content--27 to 35 percent.

Rock fragments--15 to 35 percent, mainly pebbles.

Structure--Weak through strong, fine through coarse subangular blocky.

Consistence--Slightly hard or hard, dry; very friable or friable, moist.

Btqk horizon:

Clay content--25 to 30 percent.

Durinodes--Weak or very weak, less than 30 percent.

Silica cementation--Few thin silica pendants on pebbles.

Bqkm horizons:

Structure--Massive or has thick or very thick plate-like layers.

Cementation--Some pedons are alternately strongly cemented or discontinuously indurated horizons below the duripan.

Other features--In some pedons, a 1 to 3 inch zone of degraded duripan material is common along the upper horizon boundary.

Dugchip series

The Dugchip series consists of moderately deep to a duripan, well drained soils that formed in alluvium from mixed rock sources with a component of loess high in volcanic ash. The Dugchip soils are on fan remnants. Slopes are 0 to 8 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine-loamy, mixed, mesic Xerollic Nadurargids

Typical pedon: Dugchip very fine sandy loam, 2 to 8 percent slopes, in an area of map unit 840. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light gray (2.5Y 7/2) very fine sandy loam, dark grayish brown (2.5Y 4/2) moist; moderate fine and medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine roots; many very fine, fine and medium vesicular pores; 10 percent pebbles; slightly alkaline; abrupt wavy boundary.

A2--2 to 5 inches; light gray (2.5Y 7/2) very fine sandy loam that is high in volcanic ash, dark grayish brown (2.5Y 4/2) moist; strong thin and medium platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, fine, medium and coarse roots; many very fine, fine and medium vesicular pores; 2 percent pebbles; moderately alkaline; abrupt wavy boundary.

Bw--5 to 10 inches; light brownish gray (2.5Y 6/2) silt loam that is high in volcanic ash, dark grayish brown (2.5Y 4/2) moist; moderate fine and medium subangular blocky structure parting to moderate thin and medium platy; slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine, medium and coarse roots; many very fine and fine vesicular and tubular pores; 5 percent pebbles; few faint clay films lining pores; moderately alkaline; clear wavy boundary.

Bq--10 to 15 inches; light gray (2.5Y 7/2) continuous weakly cemented fine sandy loam, dark grayish brown (2.5Y 4/2) moist, few fine prominent dark brown (7.5YR 3/4) manganese stains with horizontal orientation; massive; hard, firm and brittle, slightly sticky and slightly plastic; few very fine, fine, medium, and coarse roots; common very fine tubular pores; 20

percent strongly cemented durinodes; 5 percent pebbles; continuous brittle matrix; strongly alkaline; clear wavy boundary.

Bqk--15 to 18 inches; pale brown (10YR 6/3) fine sandy loam; brown (10YR 5/3) moist; moderate fine and medium subangular blocky structure; hard, firm and brittle, slightly sticky and slightly plastic; common very fine and medium roots; common very fine tubular pores; 30 percent weak and strongly cemented durinodes; few fine soft lime filaments; common thin lime coats on pebbles; noneffervescent matrix; 10 percent pebbles; continuous brittle matrix; strongly alkaline; clear wavy boundary.

2Btnkqb--18 to 31 inches; pale brown (10YR 6/3) clay loam; brown (10YR 5/3) moist; moderate medium prismatic structure parting to strong fine subangular blocky; hard, firm, sticky and plastic; common fine and medium roots; common very fine and fine tubular pores; many faint clay films lining pores and common faint clay films on faces of peds; 10 percent weakly cemented durinodes; many fine soft filaments of segregated lime; 10 percent pebbles and 2 percent cobbles; violently effervescent; very strongly alkaline; abrupt wavy boundary.

3Bqkmb--31 to 39 inches; white (10YR 8/2) indurated duripan with a continuous 1 to 5mm thick silica laminae, pale brown (10YR 6/3) moist; very thin horizontal lamellae throughout horizon; massive; very rigid; violently effervescent; clear wavy boundary.

3Cqkb--39 to 60 inches; white (10YR 8/2) extremely gravelly loamy sand, pale brown (10YR 6/3) moist; massive; hard, firm, and brittle, nonsticky and nonplastic; few very fine interstitial pores; discontinuous lenses of strong cementation; many moderately thick lime pendants and common moderately thick lime coats on rock fragments; 55 percent pebbles and 5 percent cobbles; violently effervescent; continuous brittle matrix; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 17 miles north of Winnemucca, about 2,300 feet east and 1,600 feet north of the southwest corner of section 27, T. 39 N., R. 38 E.; (41 degrees, 13 minutes, 34 seconds north latitude and 117 degrees, 41 minutes, 13 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist from December

through May, dry June through November.

Soil temperature: 47 to 52 degrees F.

Depth to indurated duripan: 20 to 40 inches.

Depth to buried Bt horizons: 14 to 20 inches.

Control section:

Clay content--25 to 35 percent.

Rock fragments--Up to 15 percent, mainly pebbles.

A horizons:

Hue--2.5Y or 10YR.

Value--6 or 7 dry, 3 or 4 moist.

Chroma--2 or 3.

Reaction--Neutral to moderately alkaline.

Bw horizon:

Hue--2.5Y or 10YR.

Value--5 through 7 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Very fine sandy loam or silt loam that is high in volcanic ash.

Clay content--10 to 18 percent.

Rock fragments--Up to 15 percent.

Structure--Platy or subangular blocky.

Consistence--Slightly hard or hard, dry.

Reaction--Slightly alkaline or moderately alkaline.

Bq and Bqk horizons:

Hue--2.5Y or 10YR.

Value--5 through 7 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Fine sandy loam, very fine sandy loam or silt loam that is high in volcanic ash.

Clay content--8 to 18 percent.

Rock fragments--Up to 15 percent.

Structure--Platy, subangular blocky or massive.

Consistence--Slightly hard or hard, dry.

Reaction--Moderately alkaline or strongly alkaline.

Silica cementation--From 30 percent discontinuous to continuous brittle matrix in any subhorizon with 20 to 50 percent durinodes.

Other features--Faint to prominent mottles and/or manganese stains are common in most pedons.

2Btnkqb horizon:

Value--5 or 6 dry, 4 or 5 moist.

Chroma--3 or 4.

Texture--Loam or clay loam; thin subhorizons of clay are common in some pedons.

Clay content--25 to 35 percent.

Rock fragments--Up to 15 percent.
 Structure--Prismatic with some pedons being subangular blocky in the lower subhorizons.
 Reaction--Moderately alkaline to very strongly alkaline.
 SAR--13 to 45.
 Secondary lime--As filaments and soft masses.
 Durinodes--Up to 15 percent, 10 to 25 millimeters in size are common in most pedons.

3Bqkmb horizons:

Hue--10YR or 2.5Y.
 Value--6 through 8 moist.
 Chroma--Neutral through 3.
 Structure--Thick platy or is massive.
 Reaction--Strongly alkaline or very strongly alkaline.

2Cqkb horizons:

Hue--10YR or 2.5Y.
 Value--6 through 8 dry, 5 or 6 moist.
 Chroma--2 or 3.
 Texture--Very gravelly loamy sand, very gravelly sand, extremely gravelly loamy sand.
 Clay content--2 to 8 percent.
 Rock fragments--35 to 70 percent, mostly gravel.
 Consistence--Slightly hard or hard, dry.
 Reaction--Moderately alkaline or strongly alkaline.
 Silica cementation--Continuous brittle matrix is common in most pedons.
 Discontinuous lenses of strong cementation is common in some pedons.

Dun Glen series

The Dun Glen series consists of very deep, well drained soils that formed in mixed alluvium with a loess mantle high in volcanic ash. The Dun Glen soils are on fan skirts and inset fans. Slopes are 0 to 4 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Coarse-loamy, mixed, mesic Typic Camborthids

Typical pedon: Dun Glen very fine sandy loam, in an area of map unit 233. (Colors are for dry soil unless otherwise noted.)

A--0 to 6 inches; light brownish gray (10YR 6/2) very fine sandy loam, brown (10YR 4/3) moist; strong very thin platy structure; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many fine vesicular pores; moderately alkaline; clear smooth boundary.

Bw--6 to 23 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 slightly plastic; common very fine roots; common very fine tubular pores; moderately alkaline; clear smooth boundary.

Bk1--23 to 42 inches; very pale brown (10YR 7/3) loam, brown (10YR 5/3) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common fine roots; common very fine tubular pores; few fine lime filaments; slightly effervescent; 10 percent pebbles; moderately alkaline; clear smooth boundary.

Bk2--42 to 49 inches; pale brown (10YR 6/3) fine sandy loam, dark yellowish brown (10YR 4/4) moist; massive; soft, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine tubular pores; few fine lime filaments; slightly effervescent; 10 percent pebbles; few discontinuous gravel lenses 2 inches thick; moderately alkaline; clear smooth boundary.

Bqk--49 to 60 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; common very fine tubular pores; 15 percent weak durinodes; common fine lime filaments; slightly effervescent; 10 percent pebbles; moderately alkaline.

Type location: Humboldt County, Nevada; about 1,800 feet west and 1,700 feet south of the northeast corner section 3, T. 33 N., R. 40 E.; (40 degrees, 45 minutes, 55 seconds north latitude and 117 degrees, 27 minutes, 29 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in the winter and spring, dry from late May through November.

Soil temperature: 47 to 53 degrees F.

Other features: Up to 15 percent hard and firm

durinodes are common in some pedons.

Control section:

Clay content--9 to 14 percent.

Rock fragments--Up to 10 percent, when mixed.

A horizon:

Hue--2.5Y or 10YR.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Reaction--Slightly alkaline or moderately alkaline.

Bw horizon:

Hue--2.5Y or 10YR.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Texture--Very fine sandy loam, or silt loam.

Rock fragments--Up to 10 percent, mainly pebbles.

Structure--Angular or subangular blocky structure

Consistence--Very friable or friable, moist, nonsticky to slightly sticky and nonplastic to slightly plastic, wet.

Reaction--Slightly alkaline or moderately alkaline.

Bk horizon:

Hue--2.5Y or 10YR.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Fine sandy loam, very fine sandy loam or loam with 15 to 35 percent fine sand or coarser; thin subhorizons of silt loam are in the upper part of some pedons.

Clay content--9 to 14 percent.

Rock fragments--5 to 30 percent, mainly pebbles.

Reaction--Moderately alkaline to very strongly alkaline.

Other features--Some pedons are underlain by gravel below 40 inches.

Structure--Subangular blocky structure or is massive.

Consistence--Very friable or friable, moist.

Dutchjohn series

The Dutchjohn series consists of deep, well drained soils that formed in loess over colluvium and residuum from tuff. The Dutchjohn soils are on plateaus. Slopes are 0 to 15 percent. The mean

annual precipitation is about 12 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid, Aridic Argixerolls

Typical pedon: Dutchjohn loam, 4 to 15 percent slopes, in an area of map unit 1255. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 5 percent pebbles.

A1--0 to 3 inches; grayish brown (10YR 5/2) loam, very dark grayish brown (10YR 3/2) moist; moderate medium platy structure; slightly hard, very friable, nonsticky and nonplastic; many very fine and few fine roots; many very fine, common fine, few medium and coarse vesicular and few very fine and fine tubular pores; 10 percent pebbles; neutral; abrupt smooth boundary.

A2--3 to 11 inches; grayish brown (10YR 5/2) loam, very dark grayish brown (10YR 3/2) moist; weak very thick platy structure parting to moderate fine subangular blocky; slightly hard, very friable, slightly sticky and slightly plastic; common very fine, fine, medium and coarse roots; many very fine, few fine, medium and coarse tubular pores; 10 percent pebbles; neutral; clear smooth boundary.

Bq--11 to 16 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; hard, very friable, slightly sticky and slightly plastic; common very fine, few fine, medium and coarse roots; common very fine, fine, medium and coarse tubular pores; 10 percent 1/2 to 1 inch diameter weakly cemented durinodes; 20 percent pebbles; neutral; clear wavy boundary.

Bt1--16 to 21 inches; brown (10YR 5/3) gravelly loam, dark yellowish brown (10YR 3/4) moist; moderate medium subangular blocky structure; hard, friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; many very fine and common fine tubular pores; common thin clay films on faces of peds and lining pores; 30 percent pebbles; neutral; clear wavy boundary.

Bt2--21 to 33 inches; yellowish brown (10YR 5/4) very gravelly sandy clay loam, dark yellowish brown (10YR 4/4) moist; weak coarse subangular blocky structure; hard, firm, slightly sticky and slightly plastic; common very fine,

few fine and medium roots; many very fine and common fine and few medium and coarse tubular pores; many thin and few moderately thick clay films on faces of peds and lining pores; 20 percent hard pebbles, 30 percent weathered tuffaceous pebbles and 5 percent cobbles; neutral; clear irregular boundary.

2C--33 to 51 inches; pale yellow (2.5Y 7/4) very gravelly loamy sand, light olive brown (2.5Y 5/4) moist; massive; hard, firm, nonsticky and nonplastic; few very fine and fine roots; few very fine and fine tubular and many very fine and few fine, medium, and coarse interstitial pores; many thin white (10YR 8/2) silica coats on rock fragments; 45 percent weathered tuffaceous pebbles with few discontinuous 1 to 2 millimeter silica lamella; slightly alkaline; clear wavy boundary.

3Cr--51 to 55 inches; weathered tuff; massive; very hard, very firm; many thin soft seams of lime in fractures.

Type location: Humboldt County, Nevada; about 4 miles northeast of the Martin Creek Guard Station in the Santa Rosa Mountains, approximately 200 feet north and 2,200 feet east of the southwest corner of section 32, T. 45 N., R. 40 E.; (41 degrees, 43 minutes, 51 seconds north latitude, 117 degrees, 29 minutes, 37 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry in summer and fall.

Soil temperature: 43 to 47 degrees F.

Mollic epipedon thickness: 14 to 20 inches and does not include the argillic horizon.

Depth to paralithic contact: 40 to 60 inches.

Profile reaction: Slightly acid to slightly alkaline.

Control section:

Clay content--Averages 18 to 27 percent.

Rock fragments--Averages 35 to 50 percent, mainly pebbles; some pedons may have subhorizons with 20 to 35 percent rock fragments.

A horizons:

Value 4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3.

Bq horizon:

Value 4 or 5 dry, 3 or 4 moist.

Chroma--3 or 4.

Texture--loam, clay loam, or sandy clay loam.

Rock fragments--15 to 35 percent pebbles.

Other features--Averages 5 to 15 percent weakly cemented silica durinodes.

Bt horizons:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--3 or 4.

Clay content--18 to 27 percent.

Texture--Loam and sandy clay loam and individual horizon having up to 35 percent clay.

Rock fragment--Average 35 to 50 percent mainly pebbles.

Structure--Subangular blocky and angular blocky

2C horizon:

Hue--2.5Y or 10YR.

Value--6 or 7 dry, 4 or 5 moist.

Texture--Sandy loam or loamy sand.

Clay content--3 to 10 percent.

Rock fragments--35 to 60 percent.

Other features--Some pedons have thin silica lamella.

Eaglerock series

The Eaglerock series consists of moderately deep, well drained soils that formed in residuum and colluvium from granitic rocks. Eaglerock soils are on mountains. Slopes are 15 to 50 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 45 degrees F.

Taxonomic class: Loamy-skeletal, mixed, mesic Aridic Argixerolls

Typical pedon: Eaglerock very stony sandy loam, 15 to 50 percent slopes, in an area of map unit 1500. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 35 percent pebbles, 2 percent cobbles, and 3 percent stones.

A1--0 to 2 inches; brown (10YR 4/3) very stony sandy loam, very dark grayish brown (10YR 3/2) moist; moderate medium platy structure parting to moderate fine granular; soft, very friable, nonsticky and nonplastic; many very

fine and common fine roots; many very fine and fine interstitial pores; 35 percent pebbles, 2 percent cobbles and 3 percent stones; neutral; abrupt smooth boundary.

A2--2 to 5 inches; brown (10YR 4/3) gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; moderate medium platy structure parting to moderate fine granular; soft, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine interstitial pores; 35 percent pebbles and 2 percent cobbles; neutral; abrupt smooth boundary.

AB--5 to 8 inches; brown (10YR 4/3) very gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; soft very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine and fine interstitial pores; common thin clay films bridging sand grains; 35 percent pebbles; neutral; abrupt smooth boundary.

Bt1--8 to 14 inches; brown (10YR 4/3) very gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine, common fine and medium roots; common very fine and fine interstitial and many very fine tubular pores; common moderately thick clay films on faces of peds, lining pores and bridging sand grains; 40 percent pebbles; neutral; clear wavy boundary.

Bt2--14 to 23 inches; yellowish brown (10YR 5/4) very gravelly sandy loam, dark yellowish brown (10YR 3/4) moist; moderate 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; few moderately thick clay films on faces of peds and lining pores and common thin and moderately thick clay films bridging sand grains; 50 percent pebbles; neutral; clear wavy boundary.

Cr--23 inches; granitic gus.

Type location: Humboldt County, Nevada; about 8.5 miles north of Rio King Ranch headquarters; about 500 feet south and 200 feet west of the northeast corner of section 7, T. 46 N., R 34 E.; (41 degrees, 53 minutes, 16 seconds north latitude and 118 degrees, 11 minutes, 52 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry from June through October.

Soil temperature: 47 to 50 degrees F.

Mollic epipedon thickness: 12 to 20 inches and includes the upper part of the argillic horizon.

Depth to the paralithic contact: 20 to 40 inches.

Profile reaction: Slightly acid or neutral.

A and AB horizon:

Value--4 or 5 dry.

Chroma--2 or 3.

Bt horizons:

Hue--10YR or 7.5YR.

Value--4 through 6 dry, 3 or 4 moist.

Chroma--2 through 4.

Texture--Very gravelly loam, very gravelly sandy loam, very gravelly sandy clay loam.

Clay content--18 to 27 percent.

Rock fragments--35 to 50 percent, mainly fine pebbles.

Consistence--Slightly hard or hard dry, very friable or friable moist; slightly sticky or sticky and slightly plastic or plastic, wet.

Enko series

The Enko series consists of very deep, well drained soils that formed in loamy alluvium from mixed rock sources with a component of loess and volcanic ash. Enko soils are on inset fans, fan aprons, and fan skirts. Slopes are 0 to 8 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Coarse-loamy, mixed, mesic Durixerollic Camborthids

Typical pedon: Enko very fine sandy loam, 0 to 2 percent slopes, is located in an area of map unit 503. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light brownish gray (10YR 6/2) very fine sandy loam, brown (10YR 4/3) moist; strong thick platy structure; slightly hard, very friable, nonsticky and slightly plastic; many very fine roots; many very fine and common fine tubular pores; slightly alkaline; abrupt smooth boundary.

A2--2 to 6 inches; light brownish gray (10YR 6/2) very fine sandy loam, brown (10YR 4/3) moist; strong medium platy structure parting to strong fine granular; soft, very friable, nonsticky and slightly plastic; many very fine roots; common very fine interstitial pores; slightly alkaline; clear smooth boundary.

Bw--6 to 12 inches; pale brown (10YR 6/3) fine sandy loam, brown (10YR 4/3) moist; strong medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine tubular pores; moderately alkaline; clear smooth boundary.

Bq1--12 to 22 inches; pale brown (10YR 6/3) fine sandy loam, dark grayish brown (10YR 4/2) moist; massive; hard continuous brittle matrix; firm and brittle, nonsticky and nonplastic; common very fine roots; common very fine tubular pores; 40 percent very hard and firm durinodes; moderately alkaline; abrupt smooth boundary.

Bq2--22 to 28 inches; pale brown (10YR 6/3) sandy loam, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine roots; many very fine interstitial pores; 25 percent durinodes; 5 percent pebbles; moderately alkaline; abrupt smooth boundary.

Bqk1--28 to 37 inches; pale brown (10YR 6/3) fine sandy loam; brown (10YR 4/3) moist; massive; hard, firm and brittle, nonsticky and nonplastic; few very fine roots; common very fine tubular pores; 60 percent very hard and very firm durinodes; common fine soft filaments of lime; slightly effervescent; continuous brittle matrix; strongly alkaline; clear smooth boundary.

Bqk2--37 to 52 inches; pale brown (10YR 6/3) fine sandy loam, brown (10YR 4/3) moist; massive; soft, very friable, slightly sticky and slightly plastic; few very fine roots; common very fine tubular pores; 30 percent durinodes; lime is disseminated; slightly effervescent; very strongly alkaline; clear smooth boundary.

Bqk3--52 to 60 inches; very pale brown (10YR 7/3) fine sandy loam, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and slightly plastic; few very fine roots; common very fine tubular pores; 25 percent durinodes; lime is disseminated; slightly effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 2,300 feet east and 400 feet

north of the southwest corner of section 2, T. 44 N., R. 33 E.; (41 degrees, 42 minutes, 58 seconds north latitude and 118 degrees, 14 minutes, 13 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry June through October.

Soil temperature: 49 to 54 degrees F.

Thickness of A and Bw horizons: 12 to 30 inches.

Depth to continuous brittle matrix: 12 to 32 inches.

Other features: Below 40 inches some pedons have gravelly or sandy substrata, or substrata containing gypsum crystals. Some pedons have noneffervescent Bq horizons above the Bqk horizon.

Control section:

Clay content--10 to 18 percent.

Rock fragments--0 to 15 percent pebbles.

A horizons:

Hue--10YR or 2.5Y.

Value--Commonly 6 or 7 dry, with 5 dry in some subhorizons of some pedons, 3 or 4 moist.

Chroma--2 or 3.

Reaction--Neutral to moderately alkaline.

Bw horizon:

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 through 4.

Texture--Mainly loam, fine sandy loam, or sandy loam; some pedons have strata of silt loam or clay loam in the upper part where stratified.

Structure--Prismatic, angular blocky, subangular blocky or it is massive.

Consistence--Nonsticky, slightly sticky or sticky, nonplastic, slightly plastic or plastic.

Reaction--Neutral to moderately alkaline, increasing with depth.

Carbonates--Some pedons are calcareous in the lower portion of the horizon.

Bqk and Bq horizons:

Hue--10YR, 2.5Y, 5Y.

Value--4 through 7 moist, 6 through 8 dry.

Chroma--1 through 4 dry, 2 through 4 moist.

Texture--Loam, sandy loam, fine sandy loam, gravelly sandy loam, or very fine sandy loam.

Silica cementation--Continuous brittle matrix that is at least firm consistence when moist

horizons 10 to 40 inches thick. Subhorizons contain 20 to 50 percent durinodes or are 20 to 75 percent discontinuous weakly silica-cemented.

Structure--Platy or is massive.

Consistence--Slightly hard or hard, dry; nonsticky or slightly sticky and nonplastic or slightly plastic or brittle. Substrata that are very friable, moist, are in some pedons.

Reaction--Slightly alkaline to strongly alkaline increasing with depth.

Other features--Relict iron mottles or mica particles are common in many pedons. Very gravelly or extremely gravelly substratum phases are common below depths of 40 inches in some pedons.

Erakatak series

The Erakatak series consists of moderately deep, well drained soils that formed in residuum and colluvium from igneous rocks. Erakatak soils are on plateaus and mountains. Slopes are 15 to 75 percent. The mean annual precipitation is about 16 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, frigid Typic Argixerolls

Typical pedon: Erakatak very gravelly loam, 15 to 50 percent slopes, in an area of map unit 1201. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 35 percent pebbles and 10 percent cobbles.

A1--0 to 3 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate thin platy structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine vesicular pores; 40 percent pebbles and 5 percent cobbles; neutral; abrupt smooth boundary.

A2--3 to 6 inches; brown (10YR 5/3) very gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure parting to moderate fine granular; soft, friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine and fine tubular and interstitial pores; 35 percent pebbles and 5 percent cobbles;

neutral; abrupt smooth boundary.

Bt1--6 to 11 inches; brown (10YR 5/3) very cobbly 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; common very fine, fine and few medium roots; many very fine and fine tubular and interstitial pores; common moderately thick clay films on faces of peds and lining pores; 25 percent pebbles and 15 percent cobbles; neutral; abrupt smooth boundary.

Bt2--11 to 27 inches; yellowish brown (10YR 5/4) very cobbly clay, dark yellowish brown (10YR 3/4) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine roots; many very fine and fine tubular pores; common moderately thick clay films on faces of peds and lining pores; many pressure faces on peds; 30 percent pebbles and 25 percent cobbles; neutral; abrupt wavy boundary.

Cr--27 to 29 inches; soft weathered basalt; silica in fractures; neutral.

R--29 inches; hard, fractured basalt.

Type location: Humboldt County, Nevada; approximately 10 miles north of Kings River Ranch Headquarters; 600 feet south and 200 feet east of the northwest corner of section 4, T. 47 N., R. 33 E.; (41 degrees, 59 minutes, 44 seconds north latitude and 118 degrees, 16 minutes, 55 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually moist, winter and spring, dry late July through late October.

Soil temperature: 42 to 47 degrees F.

Mollic epipedon thickness: 7 to 19 inches and includes the upper part of the argillic horizon.

Depth to paralithic contact: 20 to 35 inches.

Depth to lithic contact: 21 to 40 inches.

Control section:

Clay content--35 to 55 percent.

Rock fragments--35 to 60 percent, mainly cobbles.

A horizon:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--1 through 3 dry or moist.

Bt horizon:

Hue--10YR or 7.5YR.

Value--4 through 6 dry, 2 through 4 moist with darker value in the upper subhorizon.

Chroma--2 through 4.

Texture--Very cobbly clay loam in the upper subhorizon and very cobbly clay in the lower subhorizon.

Consistence--Slightly sticky to very sticky and slightly plastic to plastic, wet.

Reaction--Neutral or slightly alkaline.

Stress surfaces--Many present in at least part of the horizon.

Silica coats--Are present in some pedons.

Iron mottles--Common in the lower subhorizon of most pedons.

Essal series

The Essal series consists of very deep, well drained soils that formed in unconsolidated lacustrine sediments. The Essal soils are on lake plains. Slopes are 0 to 2 percent. The mean annual precipitation is about 6 inches and the mean annual temperature is about 52 degrees F.

Taxonomic class: Coarse-loamy over sandy or sandy-skeletal, mixed (calcareous), mesic Typic Torriorthents

Typical pedon: Essal loamy fine sand, 0 to 2 percent slopes, in an area of map unit 1580. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light gray (10YR 7/2) loamy fine sand, grayish brown (10YR 5/2) moist; moderate very thin and thin platy structure; soft, very friable, nonsticky and nonplastic; many very fine and fine vesicular pores; strongly effervescent; moderately alkaline; clear wavy boundary.

A2--2 to 6 inches; light gray (10YR 7/2) silt loam, grayish brown (10YR 5/2) moist; moderate very thin and thin platy structure; soft, very friable, sticky and slightly plastic; many very fine and few fine and medium roots; common very fine vesicular pores; strongly effervescent; strongly alkaline; clear wavy boundary.

C1--6 to 10 inches; white (2.5Y 8/2) silt loam, grayish brown (2.5Y 5/2) moist; moderate thin and medium platy structure; slightly hard, very friable, sticky and slightly plastic; common fine and medium and few coarse roots; common

very fine vesicular and few very fine tubular pores; violently effervescent; strongly alkaline; abrupt smooth boundary.

C2--10 to 18 inches; light gray (5Y 7/2) silt loam, olive gray (5Y 5/2) moist; many fine and medium distinct yellowish brown (10YR 5/6) moist relict mottles; weak medium and thick platy structure; slightly hard, very friable, sticky and slightly plastic; few fine, medium and coarse roots; few very fine tubular pores; common (2 percent) fine filaments of gypsum; violently effervescent; strongly alkaline; abrupt smooth boundary.

2C3--18 to 34 inches; light gray (2.5Y 7/2) stratified very fine sand, fine sandy loam to silt loam, with thin strata of very fine sand, olive gray (5Y 5/2) moist; many fine and medium distinct yellowish brown (10YR 5/6) moist relict mottles; massive; soft and slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; few very fine tubular pores; few 1 percent fine filaments of gypsum; violently effervescent; strongly alkaline; clear smooth boundary.

3C4--34 to 42 inches; light gray (2.5Y 7/2) stratified fine sand and loamy fine sand, olive gray (5Y 5/2) moist; common fine and medium distinct yellowish brown (10YR 5/6) moist and very dark grayish brown (10YR 3/2) moist relict mottles; massive; soft, very friable, nonsticky and nonplastic; few very fine roots; many very fine interstitial pores; slightly effervescent; moderately alkaline; clear wavy boundary.

3C5--42 to 60 inches; light gray (2.5Y 7/2) fine sand, olive gray (5Y 5/2) moist; thin strata (less than 1/2 mm thickness) of very dark grayish brown (10YR 3/2) moist relict mottles; massive; soft, very friable, nonsticky and nonplastic; many very fine interstitial pores; slightly effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 25 miles northwest of Winnemucca; in Desert Valley about 500 feet east and 1,000 feet north of the southwest corner of section 6, T. 37 N., R. 34 E.; (41 degrees, 06 minutes, 27 seconds north latitude and 118 degrees, 12 minutes, 50 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist for brief periods in November to May, dry June to October.

Soil temperature: 53 to 57 degrees F.

Profile reaction: Moderately alkaline or strongly alkaline.

Depth to contrasting fine sand and loamy fine sand: 30 to 39 inches.

Control section:

Clay content--upper part averages 5 to 18 percent, the lower part (2C horizons) averages 2 to 8 percent.

Rock fragments--0 to 5 percent.

A horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

C or 2C horizons:

Hue--10YR, 2.5Y, or 5Y.

Value--6 through 8 dry, 4 or 5 moist.

Chroma--2 through 6.

Texture--Stratified silt loam, very fine sandy loam; thin strata of loamy very fine sand, very fine sand and fine sandy loam are common in some pedons. The very fine sand fraction averages 51 to 85 percent.

Clay content--8 to 18 percent.

Rock fragments--0 to 5 percent.

Structure--Weak or moderate platy or is massive.

Relict mottles--Common or many in the lower subhorizons. Present in upper subhorizons of some pedons.

Other features--Gypsum as soft filaments and masses is common in any subhorizon.

2C horizons:

Hue--10YR, 2.5Y or 5Y.

Value--6 through 8 dry, 4 or 5 moist.

Chroma--2 through 6.

Texture--Stratified fine sand or loamy fine sand; thin strata of silt loam to very fine sand are common in the lower part of some pedons.

Clay content--2 to 8 percent.

Rock fragments--0 to 5 percent.

Structure--Massive or single grain.

Relict mottles--Common or many.

Other features--Gypsum as soft filaments and masses is common in any subhorizon.

Flue series

The Flue series consists of moderately deep to a duripan, well drained soils that formed in loess and

volcanic ash over alluvium from mixed rock sources. The Flue soils are on fan remnants and plateaus. Slopes are 0 to 30 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine, montmorillonitic, mesic Xerollic Nadurargids

Typical pedon: Flue very fine sandy loam, in an area of map unit 840. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light brownish gray (10YR 6/2) very fine sandy loam, dark grayish brown (10YR 4/2) moist; weak medium platy structure; soft, very friable, nonsticky and nonplastic; many very fine and few fine roots; common very fine vesicular and interstitial pores; slightly alkaline (pH 7.4); clear smooth boundary.

A2--2 to 6 inches; light brownish gray (10YR 6/2) very fine sandy loam, dark grayish brown (10YR 4/2) moist; weak thick platy structure; slightly hard, very friable, nonsticky and slightly plastic; common very fine and fine roots; many very fine vesicular and interstitial pores; slightly alkaline; clear smooth boundary.

Bq--6 to 13 inches; light brownish gray (10YR 6/2) very fine sandy loam; dark grayish brown (10YR 4/2) moist; moderate thick platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine tubular and interstitial pores; 10 percent weakly silica cemented nodules; moderately alkaline; abrupt smooth boundary.

2Bt_{nk}b--13 to 25 inches; brown (10YR 5/3) clay loam, dark brown (10YR 4/3) moist; moderate medium prismatic structure parting to moderate medium angular blocky; hard, friable, very sticky and very plastic; common very fine, fine and medium roots that are mostly exped; common very fine and fine tubular pores; many thin and few moderately thick clay films on faces of peds and lining pores; SAR 32; few fine soft filaments of lime; strongly effervescent; 5 percent pebbles; moderately alkaline; clear smooth boundary.

2Bt_{nq}kb--25 to 32 inches; brown (10YR 5/3) clay, dark brown (10YR 4/3) moist; moderate medium prismatic structure; hard, firm, very sticky and very plastic; common very fine and few fine roots; few very fine and fine tubular pores; common moderately thick clay films on

faces of peds; 5 percent weakly silica cemented nodules; SAR 25; common fine soft filaments of lime; strongly effervescent; 5 percent pebbles; strongly alkaline; clear smooth boundary.

- 2Bqkb--32 to 35 inches; light yellowish brown (10YR 6/4) gravelly sandy loam, yellowish brown (10YR 5/4) moist; moderate medium subangular blocky structure; hard, firm and brittle, slightly sticky and slightly plastic; few very fine and fine roots; few very fine and fine tubular pores; 5 percent weakly silica cemented nodules, continuous brittle matrix; violently effervescent; 25 percent pebbles; moderately alkaline; abrupt wavy boundary.
- 2Bqkmb--35 to 40 inches; indurated duripan; strong very thick platy structure; very rigid; 1 to 2 mm thick laminar cap; clear irregular boundary.
- 3Cqkb--40 to 60 inches; very pale brown (10YR 7/3) very gravelly sandy loam, brown (10YR 5/3) moist; massive; slightly hard, very friable, nonsticky and nonplastic; many very fine and fine interstitial pores; thick lime and silica pendants and coats on coarse fragments; violently effervescent; 45 percent pebbles and 5 percent cobbles; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 18 miles north of Winnemucca, about 200 feet north and 2,500 feet east of the southwest corner of section 27, T. 39 N., R. 38 E.; (41 degrees, 13 minutes, 18 seconds north latitude and 117 degrees, 41 minutes, 12 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, usually dry from July through October.

Soil temperature: 47 to 52 degrees F.

Depth to natric horizons: 11 to 20 inches.

Depth to duripan: 20 to 40 inches.

Depth to carbonates: 10 to 25 inches.

Control section:

Clay content--35 to 60 percent.

Rock fragments--0 to 25 percent, mainly pebbles

Other features--Thin 2Btbn horizons are above the 2Btncb in some pedons. Some pedon have 2Bqkb horizons above the duripan.

A horizons:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Reaction--Slightly alkaline or moderately alkaline.

Bq horizons:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Very fine sandy loam, loam or silt loam.

Clay content--10 to 20 percent

Rock fragments--0 to 15 percent, mainly pebbles.

Structure--Platy, subangular blocky, prismatic or is massive.

Consistence--Slightly hard or hard, dry.

Reaction--Moderately alkaline or strongly alkaline.

Cementation--10 percent or more weakly to strongly cemented lenses or durinodes.

Some pedons have continuous brittle matrix.

2Btncb and 2Btncqkb horizons:

Hue--10YR or 7.5YR.

Value--5 through 7 dry, 4 or 5 moist.

Chroma--3 or 4.

Structure--Fine through coarse prismatic.

Subhorizons in the lower part are subangular or angular blocky in some pedons.

Consistence--Slightly hard or hard, dry.

Carbonates--Lime is disseminated or is in soft filaments and masses.

SAR--13 to 50 in all parts of the natric.

Reaction--Moderately alkaline or very strongly alkaline.

3Cqkb horizons:

Texture--Stratified very gravelly sandy loam to extremely gravelly coarse sand.

Clay content--2 to 7 percent.

Rock fragments--35 to 70 percent, mainly pebbles.

Reaction--Moderately alkaline to very strongly alkaline.

Genaw series

The Genaw series consists of shallow, well drained soils that formed in residuum from tuffaceous sediments mantled by loess. Genaw soils are on hills, plateaus, and mountains. Slopes are 2 to 30 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 46 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow
Xerollic Haplargids

Typical pedon: Genaw silt loam, 4 to 15 percent slopes, in an area of map unit 1380. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 10 percent pebbles and 2 percent cobbles.

A1--0 to 2 inches; light brownish gray (10YR 6/2) silt loam, brown (10YR 4/3) moist; strong thick platy structure parting to moderate thin platy; slightly hard, very friable, nonsticky and nonplastic; common very fine and few fine roots; many very fine and fine vesicular and interstitial pores; 5 percent pebbles; slightly alkaline; abrupt smooth boundary.

A2--2 to 5 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; moderate medium platy structure parting to strong very thin platy; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; many very fine interstitial and tubular pores; slightly alkaline; abrupt wavy boundary.

2Btk--5 to 10 inches; pale brown (10YR 6/3) gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium and coarse subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine and few medium roots; common very fine and fine tubular and interstitial pores; few thin clay films on faces of peds and lining pores; few thin silica and lime pendants on rock fragments in the lower part; 15 percent pebbles; moderately alkaline; clear wavy boundary.

2Bqk--10 to 18 inches; light yellowish brown (10YR 6/4) very gravelly loam, yellowish brown (10YR 5/4) moist; massive; hard, friable; slightly sticky and slightly plastic; common very fine and few fine and medium roots; few very fine and fine tubular and interstitial pores; 15 percent weakly cemented lenses; lime is disseminated and in few medium soft masses; violently effervescent; 30 percent pebbles and 10 percent cobbles; moderately alkaline; abrupt irregular boundary.

2Cr--18 inches; highly weathered and fractured tuffaceous rock; silica and lime in fractures.

Type location: Humboldt County, Nevada; approximately 10 miles west of McDermitt; in an unsectionized area about 400 feet south and

1,000 feet east of the apparent northwest corner of section 35, T. 48 N., R. 36 E.; (41 degrees, 59 minutes, 50 seconds north latitude and 117 degrees, 50 minutes, 19 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry summer and fall.

Soil temperature: 47 to 52 degrees F.

Depth to paralithic contact: 14 to 20 inches.

Control section:

Clay content--18 to 30 percent

Rock fragment--15 to 35 percent.

A horizons:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3.

Reaction--Slightly alkaline or moderately alkaline.

Btk horizon:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--3 or 4.

Texture--Loam or clay loam.

Clay content--18 to 30 percent.

Rock fragments--15 to 35 percent, mainly pebbles.

Carbonates--Slightly effervescent to strongly effervescent

Structure--Angular or subangular blocky

Consistence--Very friable or friable, moist.

Bqk horizon:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--3 through 6.

Texture--Sandy loam or loam.

Rock fragments--25 to 50 percent, mainly pebbles.

Cementation--5 to 15 percent weak discontinuous cementation or weakly cemented durinodes.

Reaction--Moderately alkaline or strongly alkaline.

Gochea series

The Gochea series consists of very deep, well drained soils that formed in alluvium from mixed rock sources and colluvium from weathered tuffs, basalt, rhyolite, andesite, and conglomerate with a component of loess. Gochea soils are on fan

remnants. Slopes are 2 to 30 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Fine-loamy, mixed, frigid Durargidic Argixerolls

Typical pedon: Gochea gravelly loam, 2 to 8 percent slopes, in an area of map unit 1610. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles.

A1--0 to 2 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate medium platy structure; slightly hard, very friable, nonsticky and nonplastic; many very fine roots; common very fine, few fine, medium and coarse vesicular and few very fine tubular pores; 20 percent pebbles; neutral; abrupt smooth boundary.

A2--2 to 5 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; weak and moderate fine subangular blocky structure parting to moderate very fine granular; slightly hard, very friable, slightly sticky and slightly plastic; many very fine roots; common very fine, few fine, and medium tubular pores; 20 percent pebbles; neutral; clear smooth boundary.

A3--5 to 11 inches; brown (10YR 4/3) very gravelly silt loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine, fine, and few medium tubular pores; 35 percent pebbles; neutral; clear smooth boundary.

Bt1--11 to 15 inches; brown (10YR 5/3) gravelly clay loam, dark brown (10YR 3/3) moist; moderate medium and coarse subangular blocky structure; hard, friable, sticky and plastic; common very fine and few fine roots; common very fine, fine, and few medium tubular pores; 10 percent hard and firm 1/2 to 1 inch durinodes; common thin clay films on faces of peds and lining pores; 25 percent pebbles; neutral; clear smooth boundary.

Bt2--15 to 23 inches; yellowish brown (10YR 5/4), gravelly clay loam, brown (10YR 4/3) moist; weak medium prismatic structure parting to moderate medium and coarse subangular blocky; hard, friable, sticky and plastic; common very fine and few fine roots; many

very fine, few fine, and medium tubular pores; common moderately thick and many thin clay films on faces of peds and lining pores; few very thin silica lamella and coatings on coarse fragments; 20 percent pebbles; neutral; clear smooth boundary.

Bq1--23 to 28 inches; yellowish brown (10YR 5/4), gravelly loam, dark yellowish brown (10YR 4/4) moist; weak coarse subangular blocky structure parting to moderate fine subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; common very fine and few fine interstitial and tubular pores; 20 percent strong and weakly silica cemented lenses; common thin and moderately thick silica pendants on coarse fragments; 30 percent pebbles and 1 percent cobbles; slightly alkaline; clear smooth boundary.

2Bq2--28 to 36 inches; light yellowish brown (10YR 6/4), extremely gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard and hard, friable and firm, nonsticky and nonplastic; common very fine roots; common very fine and fine interstitial pores; 20 percent 2 to 4 inch wide weakly silica cemented lenses; 70 percent pebbles and 1 percent cobbles; slightly alkaline; clear smooth boundary.

2Bq3--36 to 60 inches; light yellowish brown (10YR 6/4), extremely gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; massive; hard, firm and brittle; few very fine roots; few very fine and fine interstitial pores; common thin and moderately thick silica pendants on coarse fragments; 70 percent pebbles and 1 percent cobbles; continuous brittle matrix; slightly alkaline.

Type location: Humboldt County, Nevada; near Goosey Lake Flat in the Santa Rosa Mountains approximately 1,400 feet east and 700 feet north of the southeast corner of section 17, T. 45 N., R. 41 E.; (41 degrees, 46 minutes, and 34 seconds latitude and 117 degrees, 22 minutes, and 14 seconds longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist winter and spring, dry mid June through October.

Soil temperature: 43 to 47 degrees F.

Mollic epipedon thickness: 10 to 15 inches which

commonly includes the upper part of the argillic horizon.

Depth to Bq horizon: 18 to 25 inches.

Other features: 2Bk horizons are in some pedons.

Control section:

Clay content averages 27 to 35 percent

Rock fragment--5 to 35 percent mainly pebbles.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bt horizons:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 through 4.

Texture--Clay loam or sandy clay loam.

Clay content--25 to 35 percent.

Rock fragments--5 to 35 percent, mainly pebbles.

Structure--Subangular, angular blocky or prismatic.

Reaction--Neutral or slightly alkaline.

Bq horizon:

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 through 4.

Texture--Sandy loam or loam.

Rock fragments--0 to 30 percent, mainly pebbles and cobbles.

Consistence--Slightly hard or hard, dry; friable or firm, moist.

Silica cementation--20 to 80 percent durinodes or has up to 50 percent weak discontinuous cementation.

Reaction--Slightly alkaline to strongly alkaline.

2Bq horizon:

Value--4 or 5 moist.

Texture--Typically sand or sandy loam in some pedons.

Clay content--2 to 8 percent; 10 to 18 percent in loamy substratum phases.

Rock fragments--50 to 75 percent, mainly pebbles.

Consistence--Slightly hard or hard, dry; very friable through firm, moist. Layers with secondary silica are continuously brittle in some pedons.

Silica cementation--Up to 80 percent weak discontinuous cementation.

Secondary carbonates--None to many lime coats on rock fragments.

Effervescence--None to slight.

Gol series

The Gol series consists of shallow, well drained soils that formed in residuum from granitic rocks. Gol soils are on mountains. Slopes are 15 to 75 percent. Mean annual precipitation is about 12 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid, shallow Xerollic Haplargids

Typical pedon: Gol very bouldery sandy loam, 30 to 75 percent slopes, in an area of map unit 1271. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 10 percent pebbles, 5 percent cobbles, 2 percent stones, and 2 percent boulders.

A1--0 to 2 inches; pale brown (10YR 6/3) very bouldery sandy loam, brown (10YR 4/3) moist; moderate thin platy structure; soft, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine and fine interstitial pores; 10 percent pebbles, 5 percent cobbles, 2 percent stones, and 2 percent boulders; slightly alkaline; clear smooth boundary.

A2--2 to 5 inches; pale brown (10YR 6/3) very gravelly sandy loam, dark grayish brown (10YR 4/2) moist; moderate medium platy structure; soft, very friable, slightly sticky and slightly plastic; common fine and very fine roots; common very fine and fine tubular pores; 40 percent pebbles, 5 percent cobbles and 2 percent stones; slightly alkaline; clear smooth boundary.

Bt--5 to 14 inches; pale brown (10YR 6/3) very gravelly sandy clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; common fine and very fine roots; common very fine and fine tubular pores; many thin clay films on faces of peds and lining pores; 40 percent pebbles; slightly alkaline; clear smooth boundary.

Cr--14 inches; weathered granitic bedrock.

Type location: Humboldt County, Nevada; approximately 15 miles southeast of Golconda; about 1,500 feet east and 2,150 feet north of the southwest corner of section 15, T. 33 N., R. 41 E.; (40 degrees, 44 minutes, 00 seconds north latitude and 117 degrees, 21 minutes, 09 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry from mid-June through October.

Soil temperature: 44 to 46 degrees F.

Depth to weathered bedrock: 14 to 20 inches.

Control section:

Clay content--18 to 35 percent.

Rock fragments--35 to 50 percent, dominantly pebbles that are primarily 2 to 5 millimeter in size.

Reaction--Neutral or slightly alkaline.

Other features--The solum is noncalcareous throughout.

A horizons:

Value--5 through 7 dry.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bt horizon:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 through 4.

Texture--Very gravelly loam, very gravelly clay loam, very gravelly sandy clay loam.

Structure--Subangular blocky, or the horizon is massive.

Reaction--Neutral or slightly alkaline.

Golconda series

The Golconda series consists of moderately deep to a duripan, well drained soils that formed in mixed alluvium with a mantle of loess high in volcanic ash. The Golconda soils are on fan remnants. Slopes are 2 to 15 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine-loamy, mixed, mesic Haplic Nadurargids

Typical pedon: Golconda silt loam, 2 to 8 percent slopes, in an area of map unit 664. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; pale brown (10YR 6/3) silt loam, brown (10YR 5/3) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine and few fine vesicular pores; 5 percent pebbles, moderately alkaline; clear smooth boundary.

A2--2 to 4 inches, pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine roots; many very fine and few fine vesicular pores; 5 percent pebbles; moderately alkaline; clear smooth boundary.

BA--4 to 13 inches; light yellowish brown (10YR 6/4) very fine sandy loam, dark yellowish brown (10YR 4/4) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine roots; common very fine tubular pores; 5 percent pebbles; moderately alkaline; abrupt smooth boundary.

Btn--13 to 17 inches; light yellowish brown (10YR 6/4) clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine prismatic structure; hard, firm, sticky and plastic; common very fine and few fine tubular pores; common thin clay films coating faces of peds and lining pores; 10 percent pebbles; strongly alkaline; clear smooth boundary.

Btnk--17 to 22 inches; pale brown (10YR 6/3) clay loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; hard, friable, sticky and plastic; common very fine and few fine roots; common very fine tubular pores; common thin clay films coating faces of peds and lining pores; common fine lime filaments; 10 percent pebbles; strongly effervescent; strongly alkaline; clear smooth boundary.

Bqkm--22 to 26 inches; white (10YR 8/2) strongly cemented duripan, pale brown (10YR 6/3) moist; massive; extremely hard, slightly rigid; violently effervescent, 25 percent pebbles and 5 percent cobbles; strongly alkaline; abrupt smooth boundary.

2Bqk--26 to 60 inches; very pale brown (10YR 7/4) very gravelly sandy loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, firm, nonsticky and nonplastic; many very fine interstitial pores; continuous lime and silica coats on rock fragments; strongly effervescent; 40 percent pebbles and 5 percent cobbles; moderately alkaline.

Type location: Humboldt County, Nevada; 900 feet west and 800 feet north of the southeast corner of section 28, T. 35 N., R. 40 E.; (40 degrees, 52 minutes, 28 seconds north latitude and 117 degrees, 28 minutes, 26 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry from May through October.

Soil temperature: 47 to 52 degrees F.

Depth to duripan: 20 to 40 inches.

Depth to segregated lime: 8 to 17 inches.

A and BA horizons:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Reaction--Slightly alkaline or moderately alkaline.

Btn horizon:

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 through 6.

Texture--Gravelly clay loam, clay loam or silty clay loam.

Clay content--27 to 35 percent.

Rock fragments--5 to 35 percent, mainly pebbles.

Structure--Prismatic, with subangular blocky common in the lower subhorizons.

Reaction--Moderately alkaline to very strongly alkaline.

Other features--Exchangeable sodium percent is 20 to 50. Horizon is noneffervescent in the upper part in some pedons.

Consistence--Hard or very hard, dry; friable to very firm, moist.

Bqkm horizon:

Value--6 through 8 dry, 5 or 6 moist.

Chroma--3 or 4.

Rock fragments--5 to 45 percent, mainly pebbles.

Structure--Platy, or horizon is massive.

Consistence--Very hard or extremely hard dry.

Other features--Has discontinuous lenses of indurated material in some pedons.

2Bqk horizon:

Texture--Stratified extremely gravelly loamy coarse sand to very gravelly sandy loam.

Consistence--Slightly hard to very hard, dry.

Other features--Normally has loose to weakly cemented pebbles. The pebbles are lacking in some pedons.

Goldrun series

The Goldrun series consists of very deep,

somewhat excessively drained soils that formed in eolian and lacustrine sands derived from mixed rock sources with some influence from volcanic ash. Goldrun soils are on sand dunes and sand sheets. Slopes are 0 to 30 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Mixed, mesic Xeric Torripsamments

Typical pedon: Goldrun loamy fine sand, 2 to 4 percent slopes, in an area of map unit 272. (Colors are for dry soils unless otherwise noted.)

A--0 to 7 inches; light brownish gray (10YR 6/2) micaceous loamy fine sand, dark grayish brown (10YR 4/2) moist; single grain; loose, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine interstitial pores; moderately alkaline; clear smooth boundary.

C1--7 to 24 inches; light brownish gray (10YR 6/2) fine sand, dark grayish brown (10YR 4/2) moist; massive; soft, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine interstitial pores; moderately alkaline; clear wavy boundary.

C2--24 to 42 inches; light gray (10YR 7/2) fine sand, grayish brown (10YR 5/2) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and fine roots; many very fine interstitial pores; appears to contain particles of ash; slightly effervescent; strongly alkaline; clear wavy boundary.

C3--42 to 67 inches; light brownish gray (10YR 6/2) fine sand, brown (10YR 5/3) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine interstitial pores; slightly effervescent; moderately alkaline; abrupt wavy boundary.

2Ck--67 to 77 inches; light brownish gray (10YR 6/2) stratified very gravelly and cobbly loamy fine sand, brown (10YR 5/3) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine interstitial pores; 50 percent rounded pebbles and cobbles; stone line of cobbles and pebbles at 67 inches; the cobbles and pebbles have a thin white coating of lime; slightly effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 200 feet southeast of the

intersection of Haskell Street and Hanson Street about 1,300 feet north and 500 feet east of the southwest corner of section 29 T. 36 N., R. 38 E.; (40 degrees, 57 minutes, 48 seconds north latitude and 117 degrees, 43 minutes, 57 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry early June through October.

Soil temperature: 47 to 52 degrees.

Depth to lime: 17 to 35 inches.

Other features: Some pedons have horizons with less than 15 percent durinodes or weak discontinuous silica bridging mineral grains.

Control section:

Texture--Dominantly fine sand with strata of coarse sand, loamy sand or loamy fine sand common in some pedons.

Clay content--1 to 8 percent.

A horizon:

Reaction--Neutral to moderately alkaline.

C horizon:

Reaction--Neutral to strongly alkaline

2Ck horizon:

Reaction--Moderately alkaline or strongly alkaline.

Other features--Slightly effervescent or strongly effervescent.

Golsum series

The Golsum series consists of moderately deep, well drained soils that formed in residuum and colluvium weathered from mixed rock sources. Golsum soils are on mountains. Slopes are 30 to 50 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, frigid Aridic Calcic Argixerolls

Typical pedon: Golsum very stony loam, 30 to 50 percent slopes, is located in an area of map unit 281. (Colors are for dry soil unless otherwise noted.)

A1--0 to 3 inches; brown (10YR 5/3) very stony

loam, dark brown (10YR 3/3) moist; moderate very fine granular structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine interstitial and common very fine tubular pores; 20 percent pebbles, 15 percent cobbles and 3 percent stones; neutral; clear smooth boundary.

A2--3 to 9 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine interstitial and common very fine tubular pores; 20 percent pebbles; neutral; clear smooth boundary.

Bt1--9 to 16 inches; brown (10YR 5/3) very gravelly clay, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure; slightly hard, very friable, sticky and plastic; common very fine, fine and medium roots; few very fine interstitial and common very fine and fine tubular pores; common moderately thick clay films on faces of peds and lining pores; 35 percent pebbles; neutral; abrupt wavy boundary.

Bt2--16 to 24 inches; yellowish brown (10YR 5/4) very gravelly clay, dark yellowish brown (10YR 4/4) moist; moderate very fine subangular blocky structure; hard, friable, sticky and plastic; few very fine roots; common very fine tubular pores; many thin and few moderately thick clay films on faces of peds and lining pores; 50 percent pebbles; neutral; abrupt wavy boundary.

Btk--24 to 31 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; weak fine angular blocky structure; slightly hard, very friable, sticky and plastic; few very fine roots; common fine interstitial pores; common moderately thick clay films on faces of peds and lining pores; few fine soft lime masses and seams, 50 percent pebbles; strongly effervescent; slightly effervescent matrix; strongly alkaline; abrupt irregular boundary.

Cr--31 to 34 inches; yellowish brown (10YR 5/4) weathered bedrock, dark yellowish brown (10YR 4/4) moist; massive, with rock structure evident; very hard, firm.

Type location: Humboldt County, Nevada; approximately 4 miles southeast of Winnemucca in Water Canyon; about 1,400 feet south of the northeast corner of section

11, T. 35 N., R. 38 E.; (40 degrees, 55 minutes, 33 seconds north latitude and 117 degrees, 39 minutes, 37 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry late June through October.

Soil temperature: 42 to 47 degrees F.

Mollic epipedon thickness: 10 to 16 inches thick, includes at least the upper Bt horizon.

Depth to secondary carbonates: 15 to 30 inches.

Depth to paralithic contact: 20 to 40 inches.

Control section:

Clay content--Averages 35 to 45 percent.

Rock fragments--Averages 35 to 55 percent, mainly pebbles.

A horizons:

Value--4 or 5 dry.

Chroma--2 or 3.

Bt horizons:

Hue--10YR or 7.5YR.

Value--4 through 6 dry, 3 or 4 moist.

Chroma--2 through 4.

Texture--Very gravelly clay, very gravelly clay loam.

Structure--Subangular blocky, angular blocky, prismatic or it is massive in some subhorizons.

Reaction--Neutral or slightly alkaline.

Btk horizon:

Hue--10YR or 7.5YR.

Value--5 or 6 dry, 3 through 5 moist.

Chroma--2 through 4.

Clay content--18 to 30 percent

Texture--Very gravelly loam, very gravelly clay loam.

Structure--Weak to strong, subangular blocky or angular blocky.

Reaction--Moderately alkaline or strongly alkaline.

Goosel series

The Goosel series consists of moderately deep over a duripan, well drained soils that formed in residuum from volcanic rocks influenced by loess and volcanic ash. Goosel soils are on plateaus. Slopes are 0 to 15 percent. The mean annual

precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine, montmorillonitic, mesic Xerollic Durargids

Typical pedon: Goosel silt loam, 2 to 4 percent slopes, in an area of map unit 862. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; pale brown (10YR 6/3) silt loam, dark brown (10YR 3/3) moist; moderate thick platy structure parting to strong thin platy; slightly hard, very friable, sticky and slightly plastic; many very fine and common fine roots; many very fine vesicular and common very fine and few fine interstitial pores; 5 percent pebbles; slightly alkaline; abrupt wavy boundary.

A2--2 to 6 inches; pale brown (10YR 6/3) silt loam, dark brown (10YR 3/3) moist; weak thick platy structure parting to moderate fine granular; soft, very friable, sticky and plastic; many very fine and common fine roots; many very fine interstitial and few very fine, fine and medium vesicular and tubular pores; 7 percent pebbles; slightly alkaline; abrupt smooth boundary.

A3--6 to 13 inches; light yellowish brown (10YR 6/4) gravelly silty clay loam, dark yellowish brown (10YR 3/4) moist; moderate medium subangular blocky structure; slightly hard, very friable, very sticky and plastic; common very fine, fine and medium roots; common very fine and fine and few medium tubular pores; 15 percent pebbles and 5 percent cobbles; slightly alkaline; clear wavy boundary.

Bt--13 to 21 inches; light brown (7.5YR 6/4) silty clay, dark brown (7.5YR 4/4) moist; moderate medium prismatic structure parting to moderate and strong very fine angular blocky; hard, friable, very sticky and very plastic; common very fine, few fine and medium roots; common very fine, fine, and few medium tubular pores; many moderately thick clay films lining pores and on faces of peds; 10 percent pebbles; slightly alkaline; abrupt wavy boundary.

Bqk--21 to 25 inches; pink (7.5YR 8/4) very gravelly sandy clay loam, light brown (7.5YR 6/4) moist; massive; hard, friable, slightly sticky and slightly plastic; few very fine and common fine and medium roots; few very fine and fine tubular pores; many medium and coarse platelike siliceous nodules that are 40 percent

weakly and strongly cemented; common moderately thick pendants of lime on rock fragments; violently effervescent; 35 percent pebbles, 15 percent cobbles; strongly alkaline; abrupt wavy boundary.

Bqkm--25 to 26 inches; pink (7.5YR 8/4) indurated duripan; massive; 1 to 5 mm thick silica and lime laminae; violently effervescent.

R--26 inches; unweathered basalt.

Type location: Humboldt County, Nevada; approximately 21 miles northeast of Paradise Valley in an unsectionized area of T. 43 N., R. 42 E.; (41 degrees, 36 minutes, 47 seconds north latitude and 117 degrees, 10 minutes, 58 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, usually dry from July through late October.

Soil temperature: 47 to 51 degrees F.

Depth to indurated duripan: 20 to 36 inches.

Depth to bedrock: 21 to 40 inches.

Control section:

Clay content--35 to 60 percent.

Rock fragments--5 to 15 percent; thin subhorizons with up to 35 percent pebbles and cobbles are in some pedons.

A horizon:

Hue--10YR or 2.5Y.

Value--5 or 6 dry, 3 through 5 moist

Chroma--2 through 4.

Reaction--Neutral or slightly alkaline.

Other features--Color value and chroma of 5/3 dry and 3/3 moist are limited to the upper 3 inches of the epipedon.

Bt horizons:

Hue--10YR or 7.5YR.

Value--5 through 7 dry, 3 through 5 moist.

Chroma--3 or 4.

Structure--Prismatic, angular blocky or subangular blocky.

Texture--Clay loam, silty clay loam, silty clay or clay.

Consistence--Slightly hard or hard, dry.

Reaction--Slightly alkaline or moderately alkaline.

Bqk horizons:

Hue--7.5YR or 10YR.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--3 or 4.

Texture--Gravelly sandy loam or very gravelly sandy clay loam.

Clay content--12 to 25 percent.

Rock fragments--15 to 50 percent, mainly pebbles.

Structure--Subangular blocky or is massive.

Consistence--Slightly hard or hard, dry.

Reaction--Moderately alkaline or strongly alkaline.

Cementation--Continuous brittle matrix or 10 to 60 percent durinodes or strongly cemented discontinuous plates.

Gosumi series

The Gosumi series consists of deep, well drained soils that formed in residuum and colluvium from metamorphic and sedimentary rocks. Gosumi soils are on mountains. Slopes are 15 to 50 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, frigid Aridic Argixerolls

Typical pedon: Gosumi stony loam, 30 to 50 percent slopes, in an area of map unit 581. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with and 15 percent pebbles, 2 percent cobbles, and 1 percent stones.

A1--0 to 3 inches; grayish brown (10YR 5/2) stony loam, very dark grayish brown (10YR 3/2) moist; weak very fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine roots; many very fine interstitial pores; 15 percent pebbles, 2 percent cobbles, and 1 percent stones; neutral; clear smooth boundary.

A2--3 to 8 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; weak very fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine, fine, and few medium roots; many very fine interstitial pores; 15 percent pebbles; neutral; abrupt wavy boundary.

Bt1--8 to 13 inches; brown (10YR 5/3) very gravelly clay loam, dark brown (10YR 3/3) moist; moderate very fine subangular blocky structure; hard, friable, sticky and plastic;

common very fine, fine, and few medium roots; many very fine interstitial and few very fine tubular pores; many thin clay films on faces of peds and lining pores; 45 percent pebbles; neutral; clear wavy boundary.

Bt2--13 to 21 inches; yellowish brown (10YR 5/4) very gravelly clay, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; hard, friable, very sticky and very plastic; common very fine and fine roots; common very fine tubular pores; common moderately thick clay films on faces of peds and lining pores; 35 percent pebbles; neutral; clear wavy boundary.

Bt3--21 to 32 inches; yellowish brown (10YR 5/4) very gravelly clay, dark yellowish brown (10YR 4/4) moist; moderate medium angular and subangular blocky structure; very hard, firm, very sticky and very plastic; few very fine and fine roots; common very fine tubular pores; many moderately thick clay films on faces of peds and lining pores; 35 percent pebbles; neutral; clear wavy boundary.

Bt4--32 to 42 inches; yellowish brown (10YR 5/4) gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; massive; hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine interstitial and few very fine tubular pores; many moderately thick clay films coating and bridging sand grains and pebbles; 25 percent pebbles; neutral; clear wavy boundary.

Btk--42 to 50 inches; light yellowish brown (10YR 6/4) very gravelly sandy loam, yellowish brown (10YR 5/4) moist; massive; hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine interstitial and few very fine tubular pores; few thin clay films bridging and coating sand grains and pebbles; many fine soft masses of lime; violently effervescent in lime masses, slightly effervescent in matrix; 40 percent pebbles; moderately alkaline; abrupt irregular boundary.

R--50 to 56 inches; light yellowish brown (10YR 6/4) fractured sandstone bedrock, grayish brown (10YR 5/2) moist with yellowish red (5YR 5/6) iron mottles; lime coats surfaces of rock fragments and along fractures.

Type location: Humboldt County, Nevada; approximately 4 miles southeast of Winnemucca, about 2,400 feet west and 700 feet north of the southeast corner of section 11 T. 35 N., R. 38 E.; (40 degrees, 55 minutes, 03

seconds north latitude and 117 degrees, 40 minutes, 07 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry from July through early October.

Soil temperature: 42 to 47 degrees F.

Mollic epipedon thickness: 10 to 16 inches.

Depth to secondary carbonates: 38 to 42 inches.

Depth to bedrock: 40 to 60 inches.

Reaction: Neutral through strongly alkaline and increases in the lower subhorizons.

Control section:

Clay content--35 to 50 percent.

Rock fragments--35 to 50 percent, mainly pebbles.

A horizons:

Chroma--2 or 3.

Structure--Granular or platy.

Bt horizons:

Value--5 or 6 dry, 3 through 5 moist.

Chroma--3 or 4.

Texture--Dominantly clay loam or clay but includes strata of gravelly or very gravelly sandy loam in the lower subhorizons.

Gowjai series

The Gowjai series consists of deep, well drained soils that formed in residuum and colluvium from mixed rocks with a component of loess and volcanic ash. The Gowjai soils are on hills and mountains. Slopes are 15 to 50 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid Aridic Argixerolls

Typical pedon: Gowjai gravelly very fine sandy loam, 30 to 50 percent slopes, in an area of map unit 700. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles and 5 percent cobbles.

A1--0 to 4 inches; grayish brown (10YR 5/2) gravelly very fine sandy loam, very dark grayish brown (10YR 3/2) moist; weak medium platy structure; slightly hard, friable, slightly sticky

and slightly plastic; many very fine and fine roots; common very fine vesicular pores; 20 percent pebbles and 5 percent cobbles; neutral; clear smooth boundary.

- A2--4 to 11 inches; grayish brown (10YR 5/2) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; weak thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine interstitial and common very fine tubular pores; 20 percent pebbles and 5 percent cobbles; neutral; clear wavy boundary.
- Bt1--11 to 18 inches; brown (10YR 5/3) very gravelly silt loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, very friable, sticky and plastic; many very fine and common fine and medium roots; common very fine tubular pores; few thin clay films on faces of peds and lining pores; 35 percent pebbles and 10 percent cobbles; neutral; clear wavy boundary.
- Bt2--18 to 36 inches; brown (10YR 5/3) very gravelly silt loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine, fine and medium and few coarse roots; many very fine tubular pores; common moderately thick clay films lining pores and few thin clay films on faces of peds; 35 percent pebbles and 10 percent cobbles; neutral; clear wavy boundary.
- Cq--36 to 52 inches; yellowish brown (10YR 5/4) very gravelly very fine sandy loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, friable, nonsticky and slightly plastic; common very fine, fine and few medium and coarse roots; common very fine interstitial pores; 15 percent brittle, weakly silica cemented durinodes; 35 percent pebbles and 10 percent cobbles; slightly alkaline; abrupt wavy boundary.
- 2R--52 inches; fractured quartzite.

Type location: Humboldt County, Nevada; approximately 2.5 miles northwest of Winnemucca; approximately 2,500 feet west and 1,340 feet north of the southeast corner of section 11, T. 36 N., R 37 E.; (41 degrees, 00 minutes, 27 seconds north latitude and 117 degrees, 46 minutes, 55 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist November to June; dry July to October.

Soil temperature: 42 to 47 degrees F.

Mollic epipedon thickness: 10 to 15 inches and includes only the A horizons.

Depth to bedrock: 40 to 60 inches.

Depth to base of Bt horizon: 30 to 40 inches.

Carbonates: Noneffervescent in all parts. Soft lime coats commonly occur along fractures of the bedrock.

A horizons:

Hue--10YR or 2.5Y.

Value--4 or 5 dry.

Chroma--2 or 3.

Bt horizons:

Value--5 or 6 dry, 4 or 5 moist.

Chroma--3 or 4

Texture--Very gravelly silt loam, very gravelly silty clay loam or very gravelly clay loam; thin subhorizons of very gravelly clay are in the lower part of some pedons.

Clay content--25 to 35 percent.

Rock fragments--35 to 60 percent, mainly pebbles.

Structure--Subangular or angular blocky.

Consistence--Slightly hard or hard, dry.

Cq horizons:

Value--5 or 6 dry, 4 or 5 moist.

Chroma--3 or 4.

Texture--Very gravelly very fine sandy loam, very gravelly silt loam or very gravelly loam.

Clay content--5 to 15 percent.

Rock fragments--35 to 60 percent, mainly pebbles.

Structure--Massive or subangular blocky.

Silica accumulation--Up to 15 percent durinodes or weakly silica cemented lenses are common in most pedons.

Hackwood series

The Hackwood series consists of very deep, well drained soils that formed in colluvium derived from volcanic rocks with a component of loess. Hackwood soils are on mountains. Slopes are 8 to

50 percent. The mean annual precipitation is about 16 inches and the mean annual temperature is about 41 degrees F.

Taxonomic class: Fine-loamy, mixed Pachic Cryoborolls

Typical pedon: Hackwood silt loam, 15 to 30 percent slopes, in an area of map unit 573. (Colors are for dry soil unless otherwise noted.)

Oi--0 to 1 inches; aspen leaf litter.

A1--1 to 4 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; weak thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine and fine vesicular pores; 5 percent pebbles; neutral; clear smooth boundary.

A2--4 to 11 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; moderate medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine, few medium and coarse roots; few very fine and fine tubular pores; slightly acid; clear smooth boundary.

A3--11 to 33 inches; dark grayish brown (10YR 4/2) silt loam, very dark grayish brown (10YR 3/2) moist; weak medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine, few fine, and coarse roots; common very fine and few fine tubular pores; 10 percent pebbles; slightly acid; clear smooth boundary.

AC--33 to 47 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine, fine, medium and coarse roots; many very fine and fine tubular pores; common discontinuous lenses of uncoated sand grains; 30 percent pebbles; slightly acid; gradual smooth boundary.

C--47 to 60 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; massive, slightly hard, very friable, slightly sticky and slightly plastic; few very fine and coarse roots; common very fine, fine and few medium tubular pores; common discontinuous lenses of uncoated sand grains; 20 percent pebbles; slightly acid.

Type location: Humboldt County, Nevada; in Stony Basin; about 1,800 feet east and 600 feet south of the northwest corner of section 35, T.

34 N., R. 39 E.; (40 degrees, 47 minutes, 03 seconds north latitude and 117 degrees, 33 minutes, 40 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist late fall through summer, dry September and October. Additional soil moistures is supplied by lateral water movement in lower part of the control section or substratum.

Soil temperature: 38 to 44 degrees F.

Summer soil temperature: 43 to 47 degrees F.

Mollic epipedon thickness: 16 to 35 inches.

Depth to the 2C horizon: 30 to 49 inches.

Reaction: Neutral or slightly acid, decreasing with depth.

Control section:

Clay content--Averages 18 to 30 percent.

Rock fragments--Averages 15 to 35 percent, mainly pebbles.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--1 through 3 dry, 1 or 2 moist.

AC horizon:

Hue--2.5Y or 10YR.

Value--5 through 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Texture--Gravelly loam or gravelly silt loam.

Structure--Subangular blocky or is massive.

Consistence--Slightly hard or hard dry; very friable or friable, moist; slightly sticky or sticky and slightly plastic or plastic, wet.

Lower C horizon:

Other features--Pores lined with very thin silt coats or uncoated sand grains. Some pedons have few to common fine distinct 10YR 5/6 dry and 4/4 moist mottles. Some pedons have few manganese stains coating pebbles and lining pores.

Harcany series

The Harcany series consists of very deep, well drained soils that formed in colluvium weathered from mixed rocks with additions of loess and volcanic ash. Harcany soils are on mountains. Slopes are 15 to 75 percent. The mean annual precipitation is about 13 inches and the mean annual temperature is about 37 degrees F.

Taxonomic class: Loamy-skeletal, mixed Pachic Cryoborolls

Typical pedon: Harcany stony silt loam, 30 to 50 percent slopes, in an area of map unit 281. (Colors are for dry soils unless otherwise noted.)

A1--0 to 4 inches; dark grayish brown (10YR 4/2) stony silt loam, very dark brown (10YR 2/2) moist; strong very fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine, few fine and medium roots; many very fine interstitial pores; 25 percent pebbles, 5 percent cobbles and 1 percent stones; neutral; clear wavy boundary.

A2--4 to 10 inches; dark grayish brown (10YR 4/2) gravelly silt loam, very dark brown (10YR 2/2) moist; moderate very fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine, few fine, and medium roots; many very fine interstitial pores; 25 percent pebbles, and 5 percent cobbles; neutral; clear wavy boundary.

A3--10 to 18 inches; dark grayish brown (10YR 4/2) very gravelly silt loam, very dark brown (10YR 2/2) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common very fine and few fine and medium roots; many very fine interstitial pores; 40 percent pebbles and 15 percent cobbles; neutral; clear wavy boundary.

2A4--18 to 48 inches; brown (10YR 5/3) extremely gravelly sandy loam, dark brown (10YR 3/3) moist; massive; hard, friable, slightly sticky and slightly plastic; common very fine, few fine, and medium roots; common very fine interstitial and few very fine tubular pores; 60 percent pebbles and 5 percent cobbles; neutral; clear wavy boundary.

2A5--48 to 72 inches; brown (10YR 5/3) extremely gravelly sandy loam, dark brown (10YR 3/3) moist; massive; hard, friable, slightly sticky and slightly plastic; few very fine roots; common very fine interstitial and few very fine tubular pores; 50 percent pebbles and 20 percent cobbles; neutral.

Type location: Humboldt County, Nevada; approximately 6 miles southeast of Winnemucca; about 500 feet west and 900 feet north of the southeast corner of section 13, T. 35 N., R. 38 E.; (40 degrees, 54

minutes, 12 seconds north latitude and 117 degrees, 38 minutes, 36 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually moist, moist in winter through early summer, dry from August through September.

Soil temperature: 36 to 43 degrees F.

Summer soil temperature: 54 to 59 degrees F.

Mollic epipedon thickness: 30 to 72 inches.

Control section:

Clay content--10 to 20 percent but the average is less than 18 percent.

Rock fragments--50 to 80 percent, mainly pebbles.

A horizons:

Value--3 through 5 dry, 2 or 3 moist.

Chroma--2 or 3.

2A horizons:

Value--5 or 6 dry.

Texture--Extremely gravelly sandy loam, very gravelly silt loam, extremely stony or extremely cobbly loam with strata of gravelly loam or gravelly silt loam.

Rock fragments--60 to 80 percent.

Havingdon series

The Havingdon series consists of moderately deep, well drained soils that formed in residuum from chert and shale with some influence from loess and volcanic ash. Havingdon soils are on mountains. Slopes are 15 to 50 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, mesic Xerollic Haplargids

Typical pedon: Havingdon very gravelly loam, 30 to 50 percent slopes, in an area of map unit 290. (Colors are for dry unless otherwise noted.) The soil surface is partially covered with 30 percent pebbles and 2 percent cobbles.

A1--0 to 3 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate medium platy structure; slightly hard, very

friable, nonsticky and nonplastic; many very fine and common fine roots; many very fine and common fine and medium vesicular pores; 35 percent pebbles, 2 percent cobbles; neutral; abrupt smooth boundary.

A2--3 to 7 inches; pale brown (10YR 6/3) gravelly silt loam, brown (10YR 4/3) moist; moderate thin platy structure; slightly hard, very friable, nonsticky and nonplastic; many very fine and common fine and medium roots; many very fine vesicular and few fine tubular pores; 30 percent pebbles, 3 percent cobbles; neutral; abrupt smooth boundary.

BA--7 to 10 inches; brown (10YR 5/3) very gravelly clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; hard, friable, sticky and plastic; common very fine, fine and medium roots; common very fine and fine tubular pores; 40 percent pebbles, 3 percent cobbles; slightly alkaline; clear smooth boundary.

Bt--10 to 16 inches; yellowish brown (10YR 5/4) very gravelly clay, dark yellowish brown (10YR 4/4) moist; strong fine angular blocky structure; very hard, firm, very sticky and very plastic; common very fine and medium roots; common very fine tubular pores; many moderately thick clay films coating faces of peds and lining pores; 50 percent pebbles and 3 percent cobbles; slightly alkaline; clear smooth boundary.

Btk--16 to 25 inches; yellowish brown (10YR 5/4) very gravelly clay, dark yellowish brown (10YR 4/4) moist; strong fine angular blocky structure; very hard, firm, sticky and plastic; common very fine, fine, medium and coarse roots; common very fine and fine tubular pores; many thin clay films coating faces of peds and lining pores; common fine soft filaments of lime in the lower part of the horizon; common thin to moderately thick lime and silica pendants on undersides of coarse fragments in lower part of horizon; 55 percent pebbles, 3 percent cobbles; slightly alkaline; abrupt wavy boundary.

R--25 inches; fractured shale.

Type location: Humboldt County, Nevada; approximately 2 miles north of the Paradise Hill dump in the Santa Rosa Range; about 300 feet east of the northwest corner of section 25, T. 40 N., R. 38 E.; (41 degrees, 19 minutes, 26 seconds north latitude and 117 degrees, 39 minutes, 22 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in some part from late October through early June.

Soil temperature: 48 to 52 degrees F.

Depth to bedrock: 20 to 26 inches.

Depth to base of the Bt horizon: 20 to 26 inches.

Control section:

Clay content--35 to 45 percent.

Rock fragments--50 to 80 percent pebbles of dominantly angular chert and shale.

A horizon:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

BA horizon:

Value--5 or 6 dry, 4 or 5 moist.

Texture--Very gravelly sandy clay loam or very gravelly clay loam.

Structure--Weak or moderate, angular or subangular blocky.

Rock fragments--35 to 60 percent pebbles.

Consistence--Slightly hard or hard dry, very friable to firm moist, slightly sticky or sticky wet.

Reaction--Neutral to moderately alkaline.

Bt horizon:

Value--5 or 6 dry, 4 through 6 moist.

Chroma--3 or 4.

Texture--Very gravelly clay, very gravelly sandy clay or extremely gravelly clay.

Rock fragments--50 to 80 percent angular chert and shale fragments; the content increase with depth.

Structure--Weak to strong, fine or medium, angular or subangular blocky or it is massive.

Consistence--Hard or very hard dry, very friable to firm moist, sticky or very sticky and plastic or very plastic wet.

Reaction--Neutral to moderately alkaline.

Btk horizon:

Secondary lime--Soft masses of lime are in the lower subhorizons of the Bt horizon in some pedons.

R horizon:

Other features--The bedrock is usually well fractured with some roots and thin to moderately thick clay films in the fractures

to a depth of up to 1 foot.

Hawsley series

The Hawsley series consists of very deep, somewhat excessively drained soils that formed in alluvium and water reworked eolian deposits from mixed rock sources. Hawsley soils are on sand sheets. Slopes are 0 to 15 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 52 degrees F.

Taxonomic class: Mixed, mesic Typic Torripsamments

Typical pedon: Hawsley fine sand, 2 to 8 percent slopes, in an area of map unit 1160. (Colors are for dry soil unless otherwise noted).

A--0 to 3 inches; pale brown (10YR 6/3) fine sand, brown (10YR 4/3) moist; single grain; loose, nonsticky and nonplastic; many very fine and common fine roots; many very fine and fine interstitial pores; 3 percent pebbles; slightly alkaline; abrupt smooth boundary.

C--3 to 25 inches; pale brown (10YR 6/3) fine sand, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and fine roots; many very fine and fine interstitial pores; 3 percent pebbles; slightly alkaline; clear smooth boundary.

Ck1--25 to 57 inches; pale brown (10YR 6/3) fine sand, brown (10YR 4/3) moist; massive; soft very friable, nonsticky and nonplastic; common very fine and medium roots; many very fine and fine interstitial pores; strongly effervescent; 5 percent pebbles; moderately alkaline (pH 8.4); abrupt smooth boundary.

2Ck2--57 to 60 inches; pale brown (10YR 6/3) stratified fine sand with thin layers of loamy fine sand, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and nonplastic; few fine and medium roots; many very fine and fine interstitial pores; violently effervescent; 2 percent pebbles; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 1,100 feet north of Jungo Road and 500 feet west of Johnson Well; about 1,300 feet west and 2,200 feet north of the southeast corner of section 32, T. 36 N., R. 34 E.; (40 degrees, 57 minutes, 03 seconds north

latitude and 118 degrees, 10 minutes, 52 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods during winter and spring.

Soil temperature: 53 to 57 degrees F.

Control section:

Rock fragments--0 to 15 percent pebbles.

A horizon:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 or 3.

Reaction--Neutral to moderately alkaline.

C horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Texture--Stratified fine sand to coarse sand.

Mixed texture is commonly sand but is fine sand in some pedons. Some pedons contain thin strata of loamy fine sand.

Structure--Single grain or massive.

Consistence--Loose or soft and very friable.

Reaction--Commonly moderately alkaline or strongly alkaline, but is slightly alkaline in the upper part in some pedons.

Effervescence--Some subhorizons are slightly effervescent to violently effervescent.

Other features--Some pedons have strata with relict iron oxide stains with hue of 7.5YR.

Hoot series

The Hoot series consists of shallow, well drained soils that formed in residuum and colluvium from metamorphic and volcanic rocks. Hoot soils are on hills, mountains, and plateaus. Slopes are 4 to 50 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Loamy-skeletal, mixed, mesic, Lithic Haplargids

Typical pedon: Hoot very gravelly loam, 15 to 50 percent slopes, in an area of map unit 1181. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 30

percent pebbles and 10 percent cobbles.

A1--0 to 2 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; slightly hard, very friable; nonsticky and nonplastic; common very fine and fine roots; many very fine and fine interstitial and tubular pores; 30 percent pebbles and 10 percent cobbles; moderately alkaline; abrupt smooth boundary.

A2--2 to 6 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine, fine and medium vesicular pores; 30 percent pebbles and 5 percent cobbles; moderately alkaline; abrupt smooth boundary.

Bt--6 to 15 inches; brown (10YR 5/3) extremely gravelly clay loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine and fine interstitial and tubular pores; common thin clay films coating faces of peds and lining pores; 55 percent pebbles and 5 percent cobbles; moderately alkaline; abrupt wavy boundary.

R--15 inches; fractured bedrock.

Type location: Humboldt County, Nevada; approximately 1/4 mile southwest of the Golden Eagle Mine in the Eugene Mountains; about 1,400 feet west and 1,100 feet north of the southeast corner, section 20, T. 35 N., R. 34 E.; (40 degrees, 53 minutes, 23 seconds north latitude and 118 degrees, 10 minutes, 47 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in some part during winter and early spring, dry late May through October.

Soil temperature: 47 to 53 degrees F.

Depth to bedrock: 10 to 20 inches.

A horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry; 4 or 5 moist.

Chroma--2 or 3 dry and moist.

Bt horizon:

Hue--10YR or 7.5YR, clay films range to 5YR.

Value--5 or 6 dry, 4 or 5 moist.

Chroma--3 or 4.

Texture--Extremely gravelly loam, extremely gravelly clay loam or very gravelly clay loam.

Clay content--25 to 35 percent.

Rock fragments--50 to 70 percent, mainly pebbles.

Structure--Subangular blocky or is massive.

Consistence--Slightly sticky or sticky and slightly plastic or plastic, wet.

Reaction--Slightly alkaline to strongly alkaline.

Carbonates--Commonly noncalcareous. Some pedons have lime coats on the undersides of rock fragments that occur directly above the bedrock.

Humboldt series

The Humboldt series consists of very deep, poorly drained soils that formed in silty alluvium from mixed rock sources with a component of volcanic ash. Humboldt soils are on flood plains. Slopes are 0 to 2 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine, montmorillonitic (calcareous), mesic Fluvaquentic Endoaquolls

Typical pedon: Humboldt silty clay loam in an area of map unit 321. (Colors are for dry soil unless otherwise noted.)

A1--0 to 3 inches; dark gray (10YR 4/1) silty clay loam, very dark grayish brown (2.5Y 3/2) moist; strong fine granular structure; hard, friable, sticky and plastic; many very fine and fine roots; many very fine and fine interstitial pores; slightly effervescent; moderately alkaline; clear smooth boundary.

A2--3 to 11 inches; dark gray (10YR 4/1) silty clay loam, black (N 2/0) moist; strong medium granular structure; hard, firm, very sticky and very plastic; many very fine and fine roots; many very fine and fine interstitial pores; slightly effervescent; moderately alkaline; gradual smooth boundary.

A3--11 to 18 inches; dark gray (10YR 4/1) silty clay loam, black (N 2/0) moist, few fine distinct

olive brown (2.5Y 4/4) mottles; weak medium prismatic structure parting to moderate coarse granular; hard, firm, sticky and plastic; many very fine and fine roots; many very fine and fine tubular and interstitial pores; slightly effervescent; moderately alkaline; gradual smooth boundary.

Bk1--18 to 26 inches; light olive gray (5Y 6/2) silty clay loam, dark olive gray (5Y 3/2) moist, common fine distinct white (5Y 8/1) and prominent olive yellow (2.5Y 6/6) mottles; moderate coarse prismatic structure parting to weak coarse subangular blocky; hard, friable, sticky and plastic; common very fine and fine roots; many very fine and common fine tubular and few very fine interstitial pores; few coarse and very coarse cylindrical carbonate concretions, strongly effervescent; slightly effervescent matrix; moderately alkaline; clear smooth boundary.

Bk2--26 to 36 inches; light olive gray (5Y 6/2) silty clay loam, dark olive gray (5Y 3/2) moist, few fine prominent olive yellow (2.5Y 6/6) mottles; weak coarse prismatic structure; hard, friable, sticky and plastic; common very fine, fine and medium roots; many very fine and few fine tubular pores; many coarse rounded soft masses of lime; many freshwater crustacean shells; strongly effervescent; strongly alkaline; clear wavy boundary.

C1--36 to 52 inches; light gray (5Y 7/1) silty clay loam, dark gray (5Y 4/1) moist, many fine and medium faint white (5Y 8/1) mottles; massive; hard, friable, sticky and plastic; common very fine and fine roots; common very fine and fine tubular pores; many crustacean shells; strongly effervescent; strongly alkaline; clear wavy boundary.

C2--52 to 65 inches; light olive gray (5Y 6/2) silty clay loam, dark olive gray (5Y 3/2) moist; massive; hard, friable, sticky and plastic; common very fine and fine roots; common very fine and fine tubular pores; many crustacean shells; strongly effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 3 miles northeast of Winnemucca; about 1,700 feet west and 1,500 feet south of the northeast corner of section 9, T. 36 N., R. 38 E.; (41 degrees, 00 minutes, 50 seconds north latitude and 117 degrees, 42 minutes, 06 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually saturated for one month or more during most years unless drained.

Soil temperature: 50 to 54 degrees F.

Mollic epipedon thickness: 10 to 24 inches.

Reaction: Slightly alkaline to very strongly alkaline, the higher values being only in sodium affected areas.

Carbonates: Slightly effervescent to strongly effervescent throughout; some strata below 20 inches in some pedons are noneffervescent. The calcium carbonate equivalent is less than 15 percent.

Iron mottles: Distinct or prominent iron mottles are on the lower part of the mollic epipedon or immediately below; or if no mottles, matrix chroma is 1 or less.

Other features: Some pedons have stratified very fine sandy loam to fine sand below 30 inches. Buried A horizons are common.

Control section:

Clay content--35 to 45 percent.

A horizons:

Hue--10YR or 2.5Y or N.

Value--4 or 5 dry, 6 on surface of some pedons due to deposition, 2 or 3 moist.

Chroma--0 through 2.

Organic matter content--2 to 4 percent organic matter.

Bk and C horizons:

Hue--10YR to 5GY or N.

Value--6 or 7 dry, 3 through 5 moist. Volcanic ash layers are 8 dry, 6 moist.

Chroma--0 through 3.

Texture--Stratified silty clay loam to clay with minor substrata of silt loam in some pedons.

Structure--Moderate or strong prismatic or blocky in the upper part; weak medium and coarse subangular blocky structure in the lower part, or it is massive.

Carbonates--Few to many very fine to very coarse lime concretions or soft segregations in some subhorizons.

Hunnton series

The Hunnton series consists of moderately deep over a duripan, well drained soils that formed in

alluvium from mixed rock sources with a component of loess and volcanic ash. Hunnton soils are on fan remnants and plateaus. Slopes are 2 to 15 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine, montmorillonitic, mesic Xerollic Durargids

Typical pedon: Hunnton very fine sandy loam, 8 to 15 percent slopes, in an area of map unit 186. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 25 percent pebbles.

A1--0 to 2 inches; light brownish gray (10YR 6/2) very fine sandy loam, dark grayish brown (10YR 4/2) moist; moderate thick platy structure; soft, friable, slightly sticky and slightly plastic; common very fine roots; many very fine and fine and common medium vesicular pores; 5 percent pebbles; neutral; abrupt smooth boundary.

A2--2 to 6 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; moderate thin platy structure; slightly hard, friable, sticky and slightly plastic; many very fine and fine roots; many very fine and few fine tubular and interstitial pores; 5 percent pebbles; slightly alkaline; clear wavy boundary.

Bt1--6 to 12 inches; yellowish brown (10YR 5/4) clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; hard, friable, sticky and plastic; many very fine and few fine roots; many very fine and few fine tubular pores; common thin clay films on faces of peds and lining pores; 10 percent pebbles; slightly alkaline; clear wavy boundary.

Bt2--12 to 22 inches; light brown (7.5YR 6/4) gravelly clay, brown (7.5YR 4/4) moist; moderate fine and medium angular blocky structure; hard, friable, sticky and plastic; few very fine and fine roots; common very fine tubular pores; many moderately thick clay films on faces of peds and lining pores; 15 percent pebbles and 5 percent cobbles; moderately alkaline; abrupt wavy boundary.

Bqkm--22 to 36 inches; white (10YR 8/2) indurated duripan, pale brown (10YR 6/3) moist; massive; very rigid; violently effervescent; strongly alkaline; clear wavy boundary.

2Cqk--36 to 60 inches; white (10YR 8/2) very gravelly sandy loam, pale brown (10YR 6/3) moist; massive; hard, very friable, nonsticky and nonplastic; 40 percent discontinuous lenses that are strongly silica and lime cemented; violently effervescent; 50 percent pebbles and 5 percent cobbles; strongly alkaline.

Type location: Humboldt County, Nevada; about 2 miles north of the Kelly Creek Ranch headquarters; approximately 500 feet east and 2,600 feet north of the southwest corner of section 1, T. 39 N., R. 43 E.; (41 degrees, 17 minutes, 24 seconds north latitude and 117 degrees, 04 minutes, 59 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist mid fall through spring, dry from summer through early fall.

Soil temperature: 47 to 52 degrees F.

Depth to duripan: 20 to 40 inches.

Depth to lime: 19 to 32 inches.

Other features: Some pedons have a 4 to 11 inch thick continuously and/or discontinuous brittle matrix Bqk or Bq horizon above the duripan.

Control section:

Clay content--40 to 55 percent

Rock fragments--Average 5 to 25 percent

A horizons:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3.

Reaction--Neutral through moderately alkaline.

Bt horizons:

Hue--10YR or 7.5YR.

Value--5 through 7 dry, 3 through 5 moist.

Chroma--3 or 4.

Texture--Clay or gravelly clay.

Clay content--40 to 55 percent.

Rock fragments--Up to 25 percent, mainly pebbles.

Structure--Weak or moderate, very fine to medium subangular or angular blocky or prismatic.

Consistence--Hard or very hard dry; sticky or very sticky and plastic or very plastic, wet.

Reaction--Neutral through moderately alkaline.

Effervescence--Noneffervescent in the upper subhorizons, none to strongly in lower subhorizons.

Other features--Some pedons have a 4 to 7 inch thick loam or clay loam Bt1 horizon with thin clay films. Some pedons have lime masses and silica concretions in the lower portion of the horizon.

Bqkm horizons:

Value--7 or 8 dry, 4 through 7 moist.

Chroma--2 or 3 dry, 3 or 4 moist.

Structure--Massive, or has weak medium to very thick platy structure.

Other features--Some pedons have strongly silica cemented horizons with 40 to 60 percent pebbles below the indurated duripan.

2Cqk horizons:

Value--6 through 8 dry, 4 through 7 moist.

Chroma--2 through 4 dry, 3 or 4 moist.

Texture--Very gravelly sandy loam, very gravelly loamy sand or extremely gravelly loamy sand.

Clay content--2 to 10 percent.

Rock fragments--40 to 70 percent, mostly pebbles.

Reaction--Moderately alkaline or strongly alkaline.

Cementation--This horizon is discontinuously to continuously weakly silica cemented with discontinuous one-half to 1 millimeter thick silica laminae common. Some pedons have up to 40 percent strong discontinuous silica cementation.

Igdell series

The Igdell series consists of moderately deep to a duripan, well drained soils that formed in a thin loess cap over alluvium mainly from mixed rock sources. Igdell soils are on fan remnants. Slopes are 2 to 15 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Fine, montmorillonitic, frigid
Abruptic Aridic Durixerolls

Typical pedon: Igdell gravelly loam, 2 to 8 percent slopes, is in an area of map unit 1285. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 15 percent pebbles.

A--0 to 2 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate medium platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine vesicular and common very fine interstitial pores; 15 percent pebbles; neutral; abrupt smooth boundary.

AB--2 to 7 inches; grayish brown (10YR 5/2) clay loam, dark brown (10YR 3/3) moist; moderate medium subangular blocky structure; slightly hard, very friable, sticky and plastic; common very fine and few fine and medium roots; common very fine tubular and interstitial pores; 7 percent pebbles; neutral; abrupt wavy boundary.

2Bt1--7 to 10 inches; brown (10YR 5/3) clay, dark brown (10YR 3/3) moist; weak medium subangular blocky structure parting to strong very fine subangular blocky; hard, friable, very sticky and very plastic; few very fine, fine and medium roots; common very fine tubular and interstitial pores; common thin clay films on faces of peds and lining pores; 5 percent pebbles and 1 percent cobbles; neutral; abrupt smooth boundary.

2Bt2--10 to 16 inches; brown (7.5YR 5/4) clay, strong brown (7.5YR 4/6) moist; strong medium and coarse prismatic structure; very hard, firm, very sticky and very plastic; common very fine expd roots; common very fine and few fine tubular pores; continuous pressure faces; many continuous 1/16" to 1/4" vertical cracks; 5 percent pebbles; slightly alkaline; clear wavy boundary.

2Bt3--16 to 21 inches; light yellowish brown (10YR 6/4), gravelly clay loam, dark yellowish brown (10YR 4/6) moist; weak coarse prismatic structure parting to strong very fine subangular blocky; hard, friable, very sticky and very plastic; few very fine roots; many very fine and few medium tubular and many very fine and fine interstitial pores; many moderately thick clay films on faces of peds and lining pores; common pressure faces; 20 percent pebbles; moderately alkaline; abrupt clear boundary.

3Bqkm1--21 to 32 inches; white (10YR 8/2) continuous indurated duripan, very pale brown (10YR 7/3) moist; massive; violently effervescent.

3Bqkm2--32 to 42; white (10YR 8/2) continuous strongly cemented duripan, very pale brown

(10YR 7/3) moist; massive; violently effervescent.

Type location: Humboldt County, Nevada; near the North Fork of the Little Humboldt River in the Santa Rosa Mountains approximately 2,500 feet east and 2,600 feet north of the southwest corner of section 19, T. 45 N., R. 41 E.; (41 degrees, 46 minutes, 00 seconds north latitude and 117 degrees, 23 minutes, 39 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry from late June through October.

Soil temperature: 44 to 47 degrees F.

Mollic epipedon thickness: 7 to 14 inches, includes upper part of argillic horizon.

Depth to lime: 20 to 33 inches.

Depth to duripan: 20 to 40 inches.

Control section:

Clay content--Averages 45 to 60 percent.

Rock fragments--10 to 35 percent, mainly pebbles.

A and AB horizons:

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

2Bt horizon:

Hue--10YR or 7.5YR.

Value--5 or 6 dry, 3 or 4 moist.

Chroma--3 through 6.

Texture--Clay, gravelly clay or silty clay in the upper subhorizons and gravelly loam, gravelly clay loam or very gravelly sandy clay loam in the subhorizon immediately above the duripan.

Rock fragments--5 to 40 percent in any one subhorizon, but averages less than 35 percent.

Reaction--Neutral to moderately alkaline increasing with depth.

Other features--At least one subhorizon in the upper part has 60 to 70 percent clay.

2Bqkm horizon:

Value--7 or 8 dry.

Structure--Thick platy or is massive.

Thickness--10 to over 30 inches thick with the base extending below 40 inches.

Isolde series

The Isolde series consists of very deep, excessively drained soils that formed in eolian sand from mixed rock sources. Isolde soils are on semi-stabilized dunes. Slopes are 2 to 30 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 52 degrees F.

Taxonomic class: Mixed, mesic Typic Torripsamments

Typical pedon: Isolde fine sand, 4 to 15 percent slopes, in an area of map unit 1161. (Colors are for dry soil unless otherwise noted.)

A--0 to 3 inches; pale brown (10YR 6/3) fine sand, brown (10YR 4/3) moist; single grain; loose, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine interstitial pores; slightly alkaline; clear smooth boundary.

C--3 to 60 inches; pale brown (10YR 6/3) fine sand, brown (10YR 4/3) moist; single grain; loose, nonsticky and nonplastic; common very fine, fine and medium roots; many very fine and fine interstitial pores; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 2 miles northeast of Venado; about 500 feet south and 1,100 feet west of the northeast corner of section 36, T. 36 N., R. 33 E.; (40 degrees, 57 minutes, 29 seconds north latitude and 118 degrees, 13 minutes, 08 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods in winter and spring, dry from summer to mid fall.

Soil temperature: 53 to 57 degrees F.

Control section:

Texture--Commonly fine sand; or in some pedons is sand, with 50 to 80 percent passing number 40 sieve and 1 to 10 percent passing the number 200 sieve.
Reaction--Neutral through moderately alkaline.

A horizon:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 4 or 5 moist.

Chroma--2 or 3.

C horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Other features--Some pedons have a 2C horizon below 40 inches. In some pedons the lower C horizon is moderately to strongly alkaline and noneffervescent to strongly effervescent.

Kelk series

The Kelk series consists of very deep, well drained soils that formed in loess with some influence from volcanic ash and mixed silty alluvium derived mainly from mixed rock sources. Kelk soils are on inset fans, fan remnants, and stream terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine-silty, mixed, mesic Durixerollic Camborthids

Typical pedon: Kelk silt loam, occasionally flooded 0 to 2 percent slopes, in an area of map unit 734. (Colors are for dry soil unless otherwise noted.)

A--0 to 4 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; moderate medium platy structure; slightly hard, very friable, sticky and slightly plastic; common very fine roots; common very fine and fine vesicular and tubular pores; slightly alkaline; clear smooth boundary.

Bw--4 to 13 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure, slightly hard, very friable, sticky and slightly plastic; many very fine and common fine, medium and coarse roots; common very fine and fine tubular pores; slightly alkaline; clear smooth boundary.

Bqk1--13 to 26 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and common fine, medium and coarse roots; common very fine and fine tubular pores; 30 percent weakly cemented durinodes; lime is disseminated; slightly effervescent; moderately alkaline; clear smooth boundary.

Bqk2--26 to 60 inches; light yellowish brown (10YR 6/4) silt loam, brown (10YR 4/3) moist; massive; hard, firm and brittle, slightly sticky and slightly plastic; common very fine, fine and medium roots; common very fine and fine tubular pores; 40 percent strongly cemented durinodes; lime is disseminated; strongly effervescent; continuous brittle matrix moderately alkaline; clear smooth boundary.

Type location: Humboldt County, Nevada; approximately 4 miles southeast of the Bullhead Ranch Headquarters on a fence-line road, in an unsectionized area about 1,800 feet east and 2,100 feet south of the northwest corner of section 8 T. 40 N., R. 42 E.; (41 degrees, 21 minutes, 42 seconds north latitude and 117 degrees, 16 minutes, 5 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in the winter and spring, dry from early June through October.

Soil temperature: 47 to 52 degrees F.

Depth to base of Bw horizon: 10 to 35 inches.

Depth to continuous weak brittle matrix: 12 to 35 inches.

Depth to carbonates: 12 to 35 inches.

Other features: These soils are normally slightly or moderately salt affected below 24 to 48 inches.

Control section:

Clay content--18 to 27 percent.

A horizon:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 3 or 4 moist.

Chroma--2 or 3.

Reaction--Neutral through moderately alkaline.

Bw horizon:

Value--6 or 7 dry, 3 or 4 moist.

Chroma--2 or 3.

Structure--Blocky or prismatic or it is massive.

Consistence--Very friable or friable, moist; sticky and slightly plastic or plastic, wet.

Reaction--Neutral to moderately alkaline. It is strongly alkaline when affected by salts and sodium.

Effervescence--Noneffervescent or slightly effervescent.

Other features--There are 10 to 20 percent weak durinodes near the lower horizon boundary in some pedons.

Bqk horizons:

Value--6 through 8 dry, and 3 through 6 moist.
 Chroma--2 through 4.
 Texture--Dominantly silt loam with thin strata of silty clay loam common in some pedons below 30 inches.
 Structure--Moderate fine and medium subangular blocky or massive.
 Consistence--Very friable to firm and brittle, moist; slightly sticky or sticky and slightly plastic or plastic, wet.
 Reaction--Neutral through strongly alkaline, increasing with depth.
 Effervescence--Slightly effervescent to violently effervescent in the Bqk horizon.
 Cementation--Subhorizons contain 30 to 90 percent durinodes or are 20 to 50 percent discontinuous weakly silica cemented.
 Other features--Some pedons lack relict mottles in the lower part of the Bqk horizons. Some pedons have lenses of 5 to 15 percent pebbles in some Bqk subhorizon or extremely gravelly substrata below 42 inches. Some pedons have silty clay loam 2Bk horizons below 39 inches.

Kingsriver series

The Kingsriver series consists of very deep, very poorly drained soils that formed in alluvium from mixed rocks. Kingsriver soils are on flood plains and stream terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 10 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Coarse-loamy, mixed, mesic Cumulic Endoaquolls

Typical pedon: Kingsriver loam, in an area of map unit 452. (Colors are for dry soil unless otherwise noted.)

A1--0 to 4 inches; dark grayish brown (10YR 4/2) loam, black (10YR 2/1) moist; moderate fine granular structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; many very fine interstitial and common fine and medium interstitial and tubular pores; slightly alkaline; abrupt wavy boundary.

A2--4 to 12 inches; variegated dark grayish brown (10YR 4/2) and gray (10YR 5/1) loam, very

dark brown (10YR 2/2) moist; many fine prominent strong brown (7.5YR 5/6), few fine distinct black (10YR 2/1) and few fine distinct dark gray (N 4/0) mottles; strong fine subangular blocky structure parting to moderate fine granular; slightly hard, friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine interstitial and common fine and medium interstitial and tubular pores; clean sand grains coat faces of ped; common worm tunnels and casts; slightly alkaline; abrupt wavy boundary.

A3--12 to 20 inches; dark gray (10YR 4/1) loam, black (10YR 2/1) moist, common fine distinct dark yellowish brown (10YR 4/4) mottles; moderate fine subangular blocky structure parting to moderate fine granular; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and common fine, medium and coarse tubular pores; clean sand grains on faces of ped; common worm tunnels and casts; 5 percent pebbles; moderately alkaline; clear smooth boundary.

A4--20 to 29 inches; dark gray (10YR 4/1) loam, black (10YR 2/1) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine and common fine, medium and coarse tubular pores; common worm tunnels and casts; few fine soft filaments of lime; strongly effervescent; 5 percent pebbles; strongly alkaline; clear smooth boundary.

2A5--29 to 43 inches; variegated gray (10YR 5/1) and grayish brown (2.5Y 5/2) sandy loam, very dark grayish brown (10YR 3/2) moist, few fine prominent black (N 2/0) mottles; massive; slightly hard, very friable, slightly sticky and nonplastic; few very fine and fine roots; many very fine, common fine and few medium interstitial and tubular pores; strongly effervescent; 5 percent pebbles; moderately alkaline; clear smooth boundary.

2C--43 to 61 inches; light brownish gray (10YR 6/2) sandy loam, brown (10YR 4/3) moist, few fine prominent black (N 2/0) mottles in the upper part; massive; soft, very friable, nonsticky and nonplastic; few very fine roots; many very fine and common fine interstitial and tubular pores; few fine soft filaments of lime; violently effervescent; 10 percent pebbles; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 1 mile northeast of the Kings River Ranch headquarters; about 1,950 feet east and 500 feet south of the northwest corner, section 22, T. 46 N., R. 33 E.; (41 degrees, 51 minutes, 37 seconds north latitude and 118 degrees, 15 minutes, 28 seconds west longitude.)

Range in characteristics:

Soil moisture: Saturated at or near the surface for long periods in the spring and summer due to seasonal high water table. Drained phases are recognized.

Soil temperature: 47 to 52 degrees F.

Mollic epipedon thickness: 30 to 60 inches

Depth to carbonates: 18 to 40 inches

Control section:

Clay content--8 to 18 percent

Rock fragments--0 to 10 percent, mainly fine pebbles.

A horizons:

Hue--2.5Y, 10YR or N

Value--4 or 5 dry, 2 or 3 moist

Chroma--0 through 2

Reaction--Slightly alkaline to strongly alkaline; usually increases with depth.

Other features--Prominent or distinct mottles or gleying are present in the lower subhorizons.

C horizon:

Hue--10YR or 2.5Y

Value--6 or 7 dry, 4 or 5 moist

Chroma--1 through 3

Texture--Sandy loam, loam or fine sandy loam

Clay content--8 to 18 percent

Rock fragments--0 to 10 percent; mainly fine pebbles

Consistence--Soft or slightly hard, dry

Reaction--Moderately alkaline or strongly alkaline

Other features--Distinct or prominent redox concentration are present in most pedons.

Kleck series

The Kleck series consists of shallow, well drained soils that formed in lacustrine sediments influenced by eolian sand or loess. The Kleck soils are on lake

plains. Slopes are 0 to 2 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 50 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow Xerollic Camborthids

Typical pedon: Kleck loamy fine sand, 0 to 2 percent slopes, in an area of map unit 352. (Colors are for dry soil unless otherwise noted.)

A--0 to 3 inches; light brownish gray (2.5Y 6/2) loamy fine sand, dark grayish brown (2.5Y 4/2) moist; weak coarse prismatic structure parting to moderate medium subangular blocky; soft, very friable, nonsticky and nonplastic; common very fine and fine roots; many very fine interstitial pores; slightly alkaline; abrupt wavy boundary.

2Bw1--3 to 8 inches; variegated light gray (2.5Y 7/2) and grayish brown (10YR 5/2) clay loam, olive brown (2.5Y 4/4) moist; moderate coarse prismatic structure parting to moderate thin platy; slightly hard, very friable, slightly sticky and slightly plastic; common very fine, fine and medium roots; common very fine and fine tubular and interstitial pores; 10 percent 2 to 5 inch diameter fine sandy loam krotovinas; slightly alkaline; clear wavy boundary.

2Bw2--8 to 11 inches; yellowish brown (10YR 5/4) clay loam, olive brown (2.5Y 4/4) moist; common dark yellowish brown (10YR 4/4) stains on face of peds; moderate coarse prismatic structure parting to moderate thin platy; hard, friable, sticky and plastic; common very fine and fine and few medium and coarse roots; common very fine, fine and medium tubular pores; common thin silica lamella bridging sand grains; moderately alkaline; clear wavy boundary.

2Bk--11 to 15 inches; light yellowish brown (2.5Y 6/4) light gray (10YR 7/2) crushed silty clay loam, light olive brown (2.5Y 5/4) moist; few thin distinct yellowish brown (10YR 5/6) and brownish yellow (10YR 6/8) relic mottles; weak coarse prismatic structure parting to moderate thin platy; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine and fine tubular pores; 35 percent very hard fragments and nodules of consolidated lake sediments; few fine lime filaments; slightly

effervescent; strongly alkaline; clear wavy boundary.

2Cd--15 to 60 inches; light gray (2.5Y 7/2) fractured consolidated lake sediments, grayish brown (2.5Y 5/2) moist; massive; very hard and firm; few very fine and fine roots oriented horizontally and vertically only in fractures; many thin white (10YR 8/1) stains on fracture planes; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 5 miles west of Winnemucca and 1.5 miles south of Jungo Road, about 1,500 feet north and 300 feet east of the southwest corner of section 32, T. 36 N., R. 37 E; (40 degrees, 56 minutes, 57 seconds north latitude and 117 degrees, 50 minutes, 52 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist November to June, dry June through October.

Soil temperature: 47 to 52 degrees F.

Depth to consolidated lake sediment(paralithic): 14 to 20 inches.

A horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Reaction--Slightly alkaline or moderately alkaline.

Other features--Normally noneffervescent but may be effervescent in some pedons due to recharge from dust.

2Bw horizons:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Stratified silt loam, silty clay loam and clay loam; some pedons have krotovinas and thin subhorizons of loamy fine sand or very fine sandy loam.

Clay content--18 to 35 percent.

Structure--Subangular blocky, platy or is prismatic.

Consistence--Slightly hard, or hard, dry.

Reaction--Slightly alkaline or moderately alkaline.

Other features--Normally noneffervescent but is effervescent in some pedons due to recharge from dust.

2Bk horizon:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Stratified silty clay loam, and silt loam.

Clay content--18 to 35 percent.

Structure--Platy, prismatic or is massive.

Consistence--Slightly hard or hard, dry.

Reaction--Moderately alkaline to very strongly alkaline.

Other features--Horizon has 5 to 35 percent, hard or very hard and firm or very firm fragments and nodules of consolidated lake sediments.

2Cd horizon:

Hue--10YR or 2.5Y.

Value--7 or 8 dry, 5 or 6 moist.

Chroma--1 or 2.

Consistence--Very hard or extremely hard dry, firm or very firm moist.

Reaction--Moderately alkaline to very strongly alkaline.

Knott series

The Knott series consists of shallow to a duripan, well drained soils that formed in alluvium weathered from mixed rock sources with some influence from loess high in volcanic ash. Knott soils are on fan remnants. Slopes range from 2 to 8 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Clayey, montmorillonitic, mesic, shallow Typic Nadurargids

Typical pedon: Knott gravelly very fine sandy loam, 2 to 8 percent slopes, in an area of map unit 1230. (Colors are for dry soil unless otherwise noted.)

A1--0 to 3 inches; light brownish gray (10YR 6/2) gravelly very fine sandy loam, dark brown (10YR 3/3) moist; strong thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine and fine vesicular pores; 15 percent pebbles; moderately alkaline; abrupt smooth boundary.

A2--3 to 6 inches; light brownish gray (10YR 6/2) silt loam, dark grayish brown (10YR 4/2) moist;

moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine and fine vesicular pores; 5 percent pebbles; moderately alkaline; abrupt wavy boundary.

Btn--6 to 12 inches; pale brown (10YR 6/3) gravelly clay, brown (10YR 4/3) moist; moderate medium prismatic structure parting to strong fine angular blocky; hard, friable, very sticky and plastic; common very fine and fine roots, mainly exped; common very fine tubular pores; common thin clay films lining pores and few thin clay films on faces of peds; 15 percent pebbles; very strongly alkaline; clear smooth boundary.

Btnk--12 to 16 inches; pale brown (10YR 6/3) gravelly clay loam, brown (10YR 5/3) moist; weak medium prismatic structure parting to strong fine angular blocky; hard, friable, sticky and plastic; common very fine and fine roots; common very fine tubular pores; common thin clay films lining pores and few thin clay films on faces of peds; 10 percent platy duripan fragments; common thin lime pendants on rock fragments, common fine soft filaments and soft masses of lime; slightly effervescent; 15 percent pebbles; very strongly alkaline; abrupt wavy boundary.

Bqkm--16 to 29 inches; white (10YR 8/2) indurated duripan with plates that are strongly cemented in the lower part, pale brown (10YR 6/3) and very pale brown (10YR 7/3) moist; massive; very rigid; common fine and very fine roots matted at the surface, few very fine and fine roots extend into fractures; violently effervescent; moderately alkaline; clear wavy boundary.

Cqk--29 to 60 inches; very pale brown (10YR 7/3) very gravelly sandy loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, very friable, nonsticky and slightly plastic; few very fine and fine roots; many very fine interstitial pores; common thin lime and silica pendants on rock fragments; common 1/2 to 2 inch thick weak lime and silica cemented platelike nodules; violently effervescent; 50 percent pebbles and 5 percent cobbles; strongly alkaline.

Type location: Humboldt County, Nevada, in Buffalo Valley about 8 miles southwest of Valmy; approximately 300 feet east and 2,600 feet south of the northwest corner of section

15, T. 33 N., R. 42 E; (40 degrees, 44 minutes, 02 seconds north latitude and 117 degrees, 14 minutes, 34 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist for short periods in winter and spring, dry from June through November.

Soil temperature: 47 to 52 degrees F.

Depth to duripan: 10 to 20 inches.

Control section:

Clay content--35 to 50 percent.

Rock fragments--10 to 30 percent, mainly pebbles.

A horizons:

Value--6 or 7 dry, 3 through 5 moist.

Chroma--2 or 3.

Reaction--Neutral to moderately alkaline.

Btn horizon:

Hue--10YR or 7.5YR.

Value--5 or 6 dry, 4 or 5 moist.

Chroma--3 through 6.

Texture--Gravelly clay, gravelly clay loam or clay.

Rock fragments--5 to 30 percent, mainly pebbles.

Reaction--Moderately alkaline to very strongly alkaline.

Exchangeable sodium--15 to 35 percent.

Other features--Segregated lime is not present in the lower Bt subhorizon in some pedons.

Consistence--Friable or firm, moist; sticky or very sticky and plastic or very plastic; wet.

Bqkm horizon:

Hue--10YR or 7.5YR.

Value--6 through 8, dry or moist.

Chroma--2 through 4.

Structure--Usually platy near the upper boundary and is massive below.

Reaction--Moderately alkaline or strongly alkaline.

Ck and Cqk horizons:

Value--6 or 7 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Very gravelly sandy loam, very gravelly coarse sandy loam, or very gravelly loamy sand.

Clay content--4 to 10 percent.

Rock fragments--40 to 60 percent, mainly pebbles.

Structure--Massive or single grain.
 Consistence--Loose, soft or slightly hard, dry; very friable, moist; nonsticky or slightly sticky and nonplastic or slightly plastic, wet.
 Reaction--Moderately alkaline or strongly alkaline.
 Other features--Weakly silica cemented lenses and lime and silica coatings on rock fragments are in some pedons.

Kortty series

The Kortty series consists of deep, well drained soils that formed in alluvium and loess from mixed sources. Kortty soils are on fan remnants. Slopes are 0 to 2 percent. Mean annual precipitation is about 8 inches and mean annual temperature is about 48 degrees.

Taxonomic class: Fine-loamy, mixed, mesic Duric Haplargids

Typical pedon: Kortty silt loam, 0 to 2 percent slopes, in an area of map unit 736. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light gray (10YR 7/2) silt loam, brown (10YR 5/3) moist, moderate fine platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; many very fine and fine vesicular pores; 10 percent pebbles; moderately alkaline; abrupt smooth boundary.

A2--2 to 7 inches; light gray (10YR 7/2) very fine sandy loam, brown (10YR 5/3) moist; moderate medium platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine vesicular and common very fine tubular pores; 5 percent pebbles; moderately alkaline; abrupt wavy boundary.

Bt--7 to 14 inches; light yellowish brown (10YR 6/4) clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine and fine and few medium roots; many very fine and fine tubular pores; 10 percent pebbles; common moderately thick clay films coating faces of peds and lining pores; strongly alkaline; clear wavy boundary.

Bqk1--14 to 18 inches; very pale brown (10YR 7/3) gravelly fine sandy loam, brown (10YR

5/3) moist; massive; hard, firm and brittle, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine tubular and interstitial pores; thin lime and silica coats on rock fragments; continuous brittle matrix; strongly effervescent; 15 percent pebbles and 5 percent cobbles; strongly alkaline; abrupt wavy boundary.

Bqk2--18 to 32 inches; very pale brown (10YR 7/3) gravelly loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; common very fine tubular and interstitial pores; 20 percent durinodes and strongly cemented plates; many thin and moderately thick lime and silica pendants on rock fragments; 15 percent pebbles and 5 percent cobbles; strongly effervescent; strongly alkaline; abrupt smooth boundary.

2Bqk3--32 to 52 inches; very pale brown (10YR 7/3) very gravelly sandy loam, brown (10YR 5/3) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common very fine roots; many very fine and fine interstitial pores; 20 percent strongly cemented durinodes; many thin and moderately thick lime and silica pendants on rock fragments; strongly effervescent; 40 percent pebbles and 5 percent cobbles; strongly alkaline; abrupt smooth boundary.

2Bqkm--52 to 60 inches; strongly cemented duripan; massive; extremely hard, slightly rigid, violently effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; about 1,500 feet south and 4,500 feet east of the projected northwest corner of section 1, T. 46 N., R. 44 E.; (41 degrees, 55 minutes, 09 seconds north latitude and 117 degrees, 00 minutes, 03 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry in summer and autumn.

Soil temperature: 47 to 53 degrees F.

Solum thickness and depth to silica cementation: 9 to 18 inches.

Depth to lime: 12 to 22 inches.

Depth to 2Bqk horizon: 32 to 50 inches.

Depth to duripan: 50 to 60 inches.

Control section:

Clay content--25 to 35 percent.

Rock fragments--0 to 15 percent, mainly pebbles.

A horizons:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Bt horizon:

Texture--Loam or clay loam.

Structure--Subangular or angular blocky.

Reaction--Moderately alkaline or strongly alkaline.

Consistence--Slightly hard or hard, dry; slightly sticky or sticky and slightly plastic or plastic wet.

Bq and Bqk horizons:

Value--7 or 8 dry, 5 or 6 moist.

Chroma--2 through 4.

Texture--Loam, gravelly loam, gravelly silt loam or gravelly fine sandy loam.

Rock fragments--5 to 20 percent

Other features--Commonly slightly saline affected at some depth below 30 inches.

2Bqk horizon:

Rock fragments--35 to 50 percent, mainly pebbles.

Consistence--Slightly hard or hard, dry; very friable through firm, moist.

Cementation--20 to 40 percent weakly silica cemented durinodes or is continuous brittle matrix.

Laped series

The Laped series consists of shallow to a duripan, well drained soils that formed in residuum and colluvium from rhyolitic tuffs, basalt and andesite. Laped soils are on plateaus and hills. Slopes are 2 to 15 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow Typic Durargids

Typical pedon: Laped stony very fine sandy loam, 2 to 8 percent slopes, in an area of map unit 1072. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with

10 percent pebbles, 5 percent cobbles, and 2 percent stones.

A1--0 to 2 inches; very pale brown (10YR 7/3) stony very fine sandy loam, brown (10YR 5/3) moist; moderate very thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic, few very fine roots; many very fine and fine vesicular pores; slightly effervescent; 5 percent pebbles, 5 percent cobbles, and 2 percent stones; moderately alkaline; abrupt smooth boundary.

A2--2 to 7 inches; pale brown (10YR 6/3) very fine sandy loam, brown (10YR 5/3) moist; strong very thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine vesicular pores; slightly effervescent; 5 percent pebbles and 5 percent cobbles; moderately alkaline; clear smooth boundary.

Bt--7 to 12 inches; light yellowish brown (10YR 6/4) gravelly clay loam, yellowish brown (10YR 5/4) moist; moderate fine prismatic structure; slightly hard, friable, sticky and plastic; common thin clay films coating faces of peds and lining pores; slightly effervescent; 15 percent pebbles and 2 percent cobbles; moderately alkaline; clear wavy boundary.

Btk--12 to 15 inches; light yellowish brown (10YR 6/4) gravelly clay loam, yellowish brown (10YR 5/4) moist; moderate fine prismatic structure parting to moderate fine angular blocky; slightly hard, friable, sticky and plastic; common thin clay films coating faces of peds and lining pores; few fine segregated lime filaments and many moderately thick lime and silica accumulations on undersides of rock fragments; slightly effervescent; 15 percent pebbles and 2 percent cobbles; moderately alkaline; abrupt wavy boundary.

Bqkm--15 to 21 inches; very pale brown (10YR 7/3) indurated duripan, light yellowish brown (10YR 6/4) moist; massive; very rigid; slightly effervescent; moderately alkaline; abrupt smooth boundary.

R--21 inches; basalt bedrock.

Type location: Humboldt County, Nevada; about 400 feet east and 2,200 feet south of the northwest corner of section 24, T. 35 N., R. 41 E.; (40 degrees, 53 minutes, 36 seconds, north latitude and 117 degrees, 19 minutes, 04 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist for short periods in winter and early spring, dry in May through October.

Soil temperature: 47 to 52 degrees F.

Solum thickness and depth to duripan: 14 to 20 inches.

Depth to bedrock: 20 to 30 inches.

Other features: Some pedons are slightly effervescent due to recharge from airborne dust.

Control section:

Clay content--27 to 35 percent.

Rock fragments--15 to 35 percent mainly pebbles.

A horizons:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Bt horizon:

Hue--7.5YR or 10YR.

Value--5 or 6 dry, 3 through 5 moist.

Chroma--4 through 6.

Structure--Prismatic, angular blocky or subangular blocky.

Texture--Gravelly clay loam or gravelly silty clay loam

Reaction--Moderately alkaline with lower subhorizons of some pedons being strongly alkaline.

SAR--Ranges from 2 to 10, with the concentration usually increasing with depth.

Carbonates--Lower subhorizon, noneffervescent to slightly effervescent matrix with secondary carbonates as filaments or coats common in most pedons.

Layview series

The Layview series consists of shallow, well drained soils that formed in residuum and colluvium from andesite, rhyolite, chert and tuff. Layview soils are on mountains. Slopes are 4 to 75 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 42 degrees F.

Taxonomic class: Loamy-skeletal, mixed Argic Lithic Cryoborolls

Typical pedon: Layview very gravelly loam, 50 to 75 percent slopes, in an area of map unit 1140. (Colors are for dry soil unless otherwise noted.)

A1--0 to 3 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate very thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine roots; common very fine tubular pores; 25 percent pebbles and 10 percent cobbles; neutral; abrupt smooth boundary.

A2--3 to 8 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate very thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; common very fine tubular pores; 40 percent pebbles and 5 percent cobbles; neutral; clear smooth boundary.

Bt--8 to 14 inches; yellowish brown (10YR 5/4) very gravelly loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and few fine roots; common very fine tubular pores; common thin clay films on faces of peds and lining pores; 40 percent pebbles and 10 percent cobbles; neutral; abrupt irregular boundary.

R--14 inches; rhyolite bedrock.

Type location: Humboldt County, Nevada; in the Sonoma Mountains about 300 feet west 100 feet north of the southeast corner of section 29, T. 35 N., R. 39 E.; (40 degrees, 52 minutes, 23 seconds north latitude and 117 degrees, 36 minutes, 16 seconds west longitude.)

Range in characteristics:

Soil moisture: These soils are usually dry during summer and fall, moist mid-October through mid-July.

Soil temperature: 43 to 47 degrees F.

Average summer soil temperature: 50 to 59 degrees F.

Depth to bedrock: 10 to 14 inches.

Reaction: Neutral or slightly alkaline.

Mollic epipedon thickness: 7 to 12 inches.

Control section:

Clay content--18 to 30 percent.

Rock fragments--35 to 60 percent, mainly pebbles.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.
 Chroma--2 or 3.

Bt horizon:

Value--4 or 5 dry, 3 or 4 moist.
 Chroma--2 through 4.
 Texture--Very gravelly loam or very gravelly clay loam.
 Clay content--22 to 35 percent.
 Rock fragments--35 to 60 percent, mainly pebbles.
 Structure--Weak or moderate subangular or angular blocky.
 Consistence--Slightly hard or hard, dry; slightly sticky or sticky and slightly plastic or plastic, wet.

Linrose series

The Linrose series consists of moderately deep, well drained soils that formed in residuum and colluvium from shale, chert, and quartzite. Linrose soils are on mountains. Slopes are 50 to 75 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 42 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid
 Aridic Haploxerolls

Typical pedon: Linrose gravelly loam, 50 to 75 percent slopes, in an area of map unit 900. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles and 2 percent cobbles.

A1--0 to 5 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; many fine tubular pores; 15 percent pebbles; slightly alkaline; clear smooth boundary.

A2--5 to 13 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; weak thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; few fine and very fine roots; few fine and medium tubular pores; 20 percent pebbles and 5 percent cobbles; slightly alkaline; clear smooth boundary.

Bw--13 to 23 inches; pale brown (10YR 6/3) very 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 roots; common very fine tubular pores; slightly effervescent; 40 percent pebbles; moderately alkaline; clear smooth boundary.

Bk--23 to 38 inches; light yellowish brown (10YR 6/4) very gravelly loam, dark yellowish brown (10YR 4/4) moist moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; few fine and very fine tubular pores; few thin lime pendants on rock fragments; slightly effervescent; 45 percent pebbles; moderately alkaline; abrupt wavy boundary.

R--38 inches; unweathered bedrock.

Type location: Humboldt County, Nevada near North Peak; about 2,100 feet east and 500 feet south of the northwest corner of section 11, T. 32 N., R. 43 E.; (40 degrees, 40 minutes, 01 second north latitude and 117 degrees, 06 minutes, 08 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry July through October.

Soil temperature: 44 to 47 degrees F.

Mollic epipedon: 7 to 15 inches thick.

Depth to unweathered bedrock: 20 to 40 inches.

Reaction: Slightly alkaline or moderately alkaline.

Control section:

Rock fragments--Averages 35 to 60 percent, mainly pebbles.

Clay content--Averages 18 to 27 percent.

A horizons:

Value--4 or 5 dry, 3 or 4 moist.
 Chroma--2 or 3.

Bk horizon:

Value--5 or 6 dry, 3 or 4 moist.
 Chroma--3 or 4 dry, 2 through 4 moist.
 Texture--Very gravelly loam and very gravelly sandy loam.
 Structure--Subangular blocky or massive.
 Consistence--Very friable or friable, moist; slightly sticky or sticky and slightly plastic or plastic, wet.

Carbonates--Matrix is noneffervescent or slightly effervescent with fine thin lime filaments or lime coatings on bottoms of rock fragments common in most pedons.

Locane series

The Locane series consists of shallow, well drained soils that formed in residuum and colluvium from shale, tuffaceous or siliceous conglomerate and volcanic rocks. The Locane soils are on hills. Slopes are 8 to 30 percent. The mean annual precipitation is about 11 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, frigid Lithic Xerollic Haplargids

Typical pedon: Locane very cobbly loam, 8 to 30 percent slopes, in an area of map unit 1540. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles and 20 percent cobbles.

A--0 to 3 inches; light brownish gray (10YR 6/2) very cobbly loam, very dark grayish brown (10YR 3/2) moist; moderate thick platy structure parting to moderate fine granular; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine vesicular and interstitial pores; 20 percent pebbles and 15 percent cobbles; neutral; abrupt smooth boundary.

Bt1--3 to 7 inches; pale brown (10YR 6/3) gravelly clay loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine roots; common very fine and fine tubular pores; few thin clay films lining pores and coating faces of peds; 25 percent pebbles; neutral; abrupt wavy boundary.

Bt2--7 to 12 inches; pale brown (10YR 6/3) very gravelly clay, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine roots; common very fine and fine tubular pores; common thin clay films lining pores and coating faces of peds; 45 percent pebbles and 5 percent cobbles; neutral; abrupt wavy boundary.

Bt3--12 to 17 inches; yellowish brown (10YR 5/4) very gravelly clay, dark yellowish brown (10YR

4/4) moist; moderate fine subangular blocky structure; very hard, firm, very sticky and very plastic; many thick clay films lining pores and coating faces of peds; common weakly silica cemented masses in the lower part; 35 percent pebbles; neutral; abrupt wavy boundary.

R--17 inches; fractured rhyolite with common thin silica coats in fractures.

Type location: Humboldt County, Nevada, approximately 11 miles northwest of the Kings River Ranch headquarters; about 2,700 feet south and 2,500 feet west of the northeast corner of section 3, T. 47 N., R. 32 E.; (41 degrees, 59 minutes, 20 seconds north latitude and 118 degrees, 22 minutes, 18 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in the winter and spring, dry late June through October.

Soil temperature: 44 to 47 degrees F.

Depth to bedrock: 10 to 20 inches.

Reaction: Slightly acid or neutral.

A horizon:

Value--6 or 7 dry, 3 or 4 moist.

Chroma--2 or 3.

Bt horizons:

Hue--10YR or 7.5YR.

Value--4 through 6 dry, 3 or 4 moist.

Chroma--2 through 4.

Structure--Weak to strong, angular blocky, subangular blocky or is massive.

Texture--Very gravelly clay loam or very gravelly clay.

Thickness--7 to 15 inches.

Clay content--35 to 50 percent.

Rock fragments--35 to 50 percent, when averaged.

Longcreek series

The Longcreek series consists of shallow, well drained soils that formed in residuum and colluvium from volcanic rocks. Longcreek soils are on side slopes of mountains and plateaus. Slopes range from 15 to 75 percent. The average annual precipitation is about 12 inches and the mean annual temperature is about 46 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, mesic Lithic Argixerolls

Typical pedon: Longcreek very cobbly loam, 50 to 75 percent slopes, in an area of map unit 1342. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles, 20 percent cobbles, and 2 percent stones.

A--0 to 3 inches; grayish brown (10YR 5/2) very cobbly loam, very dark brown (10YR 2/2), moist; weak medium platy structure; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine and fine interstitial and vesicular pores; 30 percent pebbles and 20 percent cobbles; neutral; abrupt smooth boundary.

BAt--3 to 6 inches; brown (10YR 5/3) very cobbly clay loam, very dark brown (10YR 2/2), moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine interstitial and tubular pores; few thin clay films lining pores; 35 percent pebbles and 20 percent cobbles; neutral; clear smooth boundary.

Bt1--6 to 10 inches; brown (10YR 5/3) very cobbly clay loam, very dark grayish brown (10YR 3/2), moist; moderate fine and medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine roots; many very fine interstitial and tubular pores; common moderately thick clay films lining pores and coating faces of peds; 35 percent pebbles and 20 percent cobbles; neutral; abrupt wavy boundary.

Bt2--10 to 14 inches; yellowish brown (10YR 5/4) very cobbly clay, dark brown (10YR 3/3) moist; strong medium angular blocky structure; hard, firm, very sticky and very plastic; common very fine and fine roots; common very fine tubular pores; many thick clay films lining pores and coating faces of peds; 35 percent pebbles and 20 percent cobbles; neutral; abrupt wavy boundary.

R--14 inches; fractured volcanic rock; the upper 4 inches can be dug with difficulty with a spade; clay is in fractures and partially caps the surface of the rock.

Type location: Humboldt County, Nevada; about 1/4 mile north of Cottonwood Creek in the Trout Creek Mountains on the Oregon State

Line; approximately 20 feet south and 1,800 feet east of the northwest corner of section 1, T. 47 N., R. 32 E.; (41 degrees, 59 minutes, 47 seconds north latitude and 118 degrees, 20 minutes, 11 seconds west longitude.)

Range in characteristics:

Soil moisture: This soil has an aridic moisture regime bordering on xeric and are dry in all parts of the moisture control section from early June through mid November (167 days).

Soil temperature: 47 to 50 degrees.

Depth to bedrock: 14 to 20 inches.

Mollic epipedon: 7 to 14 inches thick including the BAt and the upper part of the Bt1 horizon.

A horizon:

Hue--10YR or 7.5YR.

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 through 4.

Organic matter content--1 to 4 percent.

Bt horizon:

Hue--10YR or 7.5YR.

Value--4 through 6 dry, 3 or 4 moist.

Chroma--2 through 4.

Texture--Very cobbly clay, very stony clay, very cobbly silty clay or very cobbly clay loam.

Clay content--35 to 50 percent.

Rock fragments--Mostly cobbles 35 to 55 percent.

Reaction--Neutral or slightly alkaline.

Structure--Strong or moderate fine or medium angular or subangular blocky in the upper part and strong medium and coarse angular blocky or is weak or strong fine to coarse prismatic parting to strong or moderate fine to coarse angular blocky in the lower part.

Lunder series

The Lunder series consists of shallow to a duripan, well drained soils that formed in alluvium from andesite and basalt. Lunder soils are on fan remnants. Slopes are 2 to 8 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Clayey, montmorillonitic, mesic, shallow Abruptic Aridic Durixerolls

Typical pedon: Lunder cobbly loam, 2 to 8 percent

slopes, in an area of map unit 520. (Colors are for dry soil unless otherwise noted). The soil surface is partially covered with 10 percent pebbles and 20 percent cobbles.

A--0 to 9 inches; grayish brown (10YR 5/2) cobbly loam, dark brown (10YR 3/3) moist; moderate very thin platy 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 vesicular and tubular pores; 10 percent pebbles and 10 percent cobbles; slightly alkaline; abrupt smooth boundary.

Bt1--9 to 16 inches; pale brown (10YR 6/3) cobbly clay, brown (10YR 4/3) moist; strong medium prismatic structure; very hard, very firm, very sticky and very plastic; common very fine and fine and few medium and coarse roots; common very fine and fine and few medium and coarse tubular pores; many moderately thick clay films on faces of peds and lining pores; 5 percent pebbles and 15 percent cobbles; slightly alkaline; clear wavy boundary.

Bt2--16 to 19 inches; light yellowish brown (10YR 6/4) cobbly clay, variegated brown (10YR 4/3) and dark yellowish brown (10YR 4/4) moist; weak medium prismatic structure; very hard, very firm, very sticky and very plastic; few very fine and fine and common medium roots; common very fine, fine and medium and few coarse tubular pores; common moderately thick clay films lining pores; 5 percent pebbles and 10 percent cobbles; slightly alkaline; clear wavy boundary.

Bqm--19 to 26 inches; very pale brown (10YR 8/3) indurated duripan, brown (10YR 5/3) moist; strong very thick platy structure; very rigid; fractured thick laminar cap; few fine and medium roots in fractures; slightly alkaline; gradual wavy boundary.

Bqkm--26 to 60 inches; white (10YR 8/2) indurated duripan, brown (10YR 5/3) moist; strong very thick platy structure; very rigid; many disoriented laminae throughout horizon with strong and weakly cemented silica between layers; common medium lime filaments; violently effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 6.5 miles north of Paradise Valley; about 900 feet west and 1,000 feet north of the southeast corner of section 23, T.

43., R. 39 E.; (41 degrees, 35 minutes, 18 seconds north latitude and 117 degrees, 32 minutes, 30 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist from late fall to mid-spring, dry from late spring through mid-fall.

Soil temperature: 47 to 50 degrees F.

Mollic epipedon thickness: 7 to 10 inches.

Depth to duripan: 14 to 20 inches.

Other features: The upper part of the duripan is noneffervescent in some pedons.

Reaction: Neutral or slightly alkaline.

Control section:

Clay content--50 to 60 percent.

Rock fragments--15 to 35 percent.

A horizon:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3.

Bt horizons:

Hue--7.5YR or 10YR.

Value--4 through 6 dry, 3 or 4 moist.

Chroma--3 through 5.

Structure--Angular or subangular blocky, or prismatic.

Bqm and Bqkm horizons:

Value--7 or 8 dry, 4 or 5 moist.

Chroma--2 through 4.

Structure--Platy or is massive.

Reaction--Slightly alkaline to very strongly alkaline.

Madeline series

The Madeline series consists of shallow, well drained soils that formed in residuum and colluvium from basalt, tuff and andesite. Madeline soils are on hills, plateaus, and mountains. Slopes are 2 to 50 percent. The mean annual precipitation is about 14 inches and the mean annual air temperature is about 42 degrees F.

Taxonomic class: Clayey, montmorillonitic, frigid Lithic Argixerolls

Typical pedon: Madeline loam, 2 to 8 percent slopes, in an area of map unit 1200. (Colors are for dry soil unless otherwise noted).

A--0 to 3 inches; dark grayish brown (10YR 4/2) loam, very dark brown (10YR 2/2) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and common medium and few coarse roots; many very fine and fine and common medium and coarse interstitial and many very fine and fine vesicular pores; slightly alkaline; clear smooth boundary.

BA--3 to 10 inches; variegated dark grayish brown (10YR 4/2) and brown (10YR 4/3) loam, variegated very dark grayish brown (10YR 3/2) and dark brown (10YR 3/3) moist; moderate medium prismatic structure parting to moderate medium subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and common medium and few coarse roots; many very fine and fine tubular and common medium and few coarse interstitial pores; slightly alkaline; clear smooth boundary.

Bt--10 to 14 inches; brown (10YR 5/3) clay loam, dark brown (10YR 3/3) moist; weak medium prismatic structure parting to moderate medium subangular blocky; hard, firm, sticky and plastic; common very fine and fine and few medium roots; common very fine and fine and few medium tubular pores; common thin clay films on faces of peds and lining pores; 5 percent pebbles and 5 percent cobbles; slightly alkaline; abrupt wavy boundary.

R--14 inches; unweathered bedrock.

Type location: Humboldt County, Nevada; approximately 15 miles east of McDermitt; about 220 feet south and 1,360 feet west of the northeast corner of section 3 T. 47 N., R. 40 E.; (41 degrees, 59 minutes, 56 seconds north latitude and 117 degrees, 26 minutes, 48 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry from July through October.

Soil temperature: 43 to 47 degrees F.

Mollic epipedon thickness: 7 to 15 inches and includes part or all of argillic horizon.

Depth to bedrock: 10 to 20 inches.

Control section:

Clay content--35 to 60 percent.

Rock fragments--5 to 35 percent.

A horizon:

Hue--5YR through 10YR.

Value--4 or 5 dry, 2 or 3 moist. A thin subhorizon may be 6 dry and 4 moist.

Chroma--1 through 3 dry and moist.

Reaction--Slightly acid to slightly alkaline.

Bt horizon:

Hue--5YR through 10YR moist and dry.

Value--3 through 6 dry, 3 or 4 moist.

Chroma--2 through 4 dry and moist.

Texture--Clay or sandy clay or clay loam with 35 to 60 percent clay and 5 to 35 percent stones, cobbles, and pebbles.

Structure--Weak to strong, prismatic, subangular or angular blocky.

Consistence--Hard to extremely hard dry, friable to very firm moist.

Reaction--Slightly acid to slightly alkaline.

R horizon:

Other features--The upper one or two inches of some pedons is weathered.

Mazuma series

The Mazuma series consists of very deep, well drained soils that formed in alluvium and lacustrine material from mixed rock sources. Mazuma soils are on lake plains and lagoons. Slopes are 0 to 4 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 51 degrees F.

Taxonomic class: Coarse-loamy, mixed (calcareous), mesic Typic Torriorthents

Typical pedon: Mazuma very fine sandy loam, 2 to 4 percent slopes, in an area of map unit 511. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light brownish gray (10YR 6/2) very fine sandy loam, dark grayish brown (10YR 4/2) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine vesicular pores; strongly effervescent; 10 percent pebbles; strongly alkaline; abrupt smooth boundary.

A2--2 to 6 inches; light brownish gray (10YR 6/2) very fine sandy loam, dark grayish brown (10YR

4/2) moist; moderate medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine tubular and vesicular pores; slightly effervescent; 10 percent pebbles; very strongly alkaline; abrupt smooth boundary.

Bk--6 to 16 inches; very pale brown (10YR 7/3) sandy loam, yellowish brown (10YR 5/4) moist; weak coarse subangular blocky structure; hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine tubular pores; few thin lime pendants on rock fragments; strongly effervescent; 10 percent pebbles; very strongly alkaline; clear wavy boundary.

C1--16 to 25 inches; pale yellow (2.5Y 7/4) sandy loam, light olive brown (2.5Y 5/4) moist; massive; soft, very friable, nonsticky and slightly plastic; common very fine and few fine roots; common very fine and fine interstitial and tubular pores; violently effervescent; 10 percent pebbles; strongly alkaline; abrupt wavy boundary.

C2--25 to 40 inches; very pale brown (10YR 7/3) stratified gravelly loamy sand to fine sandy loam, brown (10YR 5/3) moist; massive; soft, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine tubular and interstitial pores; violently effervescent; 15 percent pebbles; strongly alkaline; abrupt wavy boundary.

C3--40 to 60 inches; very pale brown (10YR 7/3) gravelly sandy loam, brown (10YR 5/3) moist; few medium prominent brownish yellow (10YR 6/8) relic mottles in thin bands and spots, 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; violently effervescent; 25 percent pebbles; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 5 miles southwest of Blue Mountain; about 2,200 feet north and 1,300 feet east of the southwest corner of section 10, T. 35 N., R. 34 E.; (40 degrees, 55 minutes, 18 seconds north latitude and 118 degrees, 09 minutes, 04 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods

in winter and spring, dry from summer to mid fall.

Soil temperature: 53 to 57 degrees F.

Control section:

Clay content--5 to 15 percent.

Rock fragments--A few strata have up to 25 percent pebbles.

Electrical conductivity--Greater than 2 millimhos.

Exchangeable sodium percent--13 to 45.

A horizon:

Hue--10YR or 2.5Y.

Value--5 through 7 dry; 4 through 6 moist.

Chroma--2 through 4.

Reaction--Moderately alkaline to very strongly alkaline.

Bk horizons:

Hue--10YR or 2.5Y.

Value--5 through 7 dry; 4 through 6 moist.

Chroma--2 through 4.

Other features--Less than 3 percent calcium carbonate equivalent.

Consistence--Slightly hard or hard, dry.

C horizons:

Hue--10YR or 2.5Y

Value--5 through 7 dry; 4 through 6 moist.

Chroma--2 through 4.

Texture--Stratified sandy loam, fine sandy loam, very fine sandy loam and silt loam with some pedons containing thin strata of clay loam and strata up to 12 inches thick of coarse sand, very coarse sand, fine sand or loamy sand.

Reaction--Moderately alkaline to very strongly alkaline.

Segregated lime--Few fine or medium calcium carbonate concretions may be in any horizon.

Unconformable material--Lacustrine silts and clays occur below 40 inches in some pedons.

Other features--Salt crystals or relict mottles are in some pedons in the lower C horizon.

Structure--Subangular blocky, platy or is single grain or massive.

Consistence--Soft or slightly hard, dry or is loose.

McConnel series

The McConnel series consists of very deep, somewhat excessively drained soils that formed in alluvium from mixed rock sources with a component of loess and volcanic ash over lacustrine beach sediments or gravelly alluvium. McConnel soils are on inset fans, beach terraces, and drainage channels. Slopes are 0 to 8 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Sandy-skeletal, mixed, mesic Xerollic Camborthids

Typical pedon: McConnel fine sandy loam, 0 to 2 percent slopes, in an area of map unit 330. (Colors are for dry soil unless otherwise noted.)

A1--0 to 1 inch; gray (10YR 6/1) fine sandy loam, dark gray (10YR 4/1) moist; weak thick platy structure; slightly hard, friable, nonsticky and nonplastic; common fine roots; many fine and medium vesicular pores; 5 percent pebbles; neutral; abrupt smooth boundary.

A2--1 to 9 inches; gray (10YR 6/1) fine sandy loam, dark gray (10YR 4/1) moist; weak fine granular structure; slightly hard, friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine interstitial pores; neutral; clear smooth boundary.

Bw--9 to 16 inches; light brownish gray (10YR 6/2) fine sandy loam, grayish brown (10YR 5/2) moist; weak very fine subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine interstitial pores; 5 percent pebbles; slightly alkaline; clear wavy boundary.

2Bk1--16 to 20 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; many very fine and fine roots; many very fine and fine interstitial pores; common very thin lime coatings on the underside of pebbles; slightly effervescent; 60 percent pebbles; moderately alkaline; clear wavy boundary.

3Bk2--20 to 30 inches; grayish brown (10YR 5/2) extremely gravelly coarse sand, dark gray (10YR 4/1) moist; single grain; loose, nonsticky and nonplastic; few fine roots; many very fine and fine and few medium interstitial pores; continuous lime coating the undersides and

some lime on the top and sides of pebbles; violently effervescent; 75 percent pebbles; very strongly alkaline; clear wavy boundary.
4C--30 to 72 inches; grayish brown (10YR 5/2) coarsely stratified coarse sand and gravel, dark grayish brown (10YR 4/2) moist; many very dark gray (10YR 3/1), white (10YR 8/1) and brown (10YR 4/3) pebbles and sand grains; single grain; loose, nonsticky and nonplastic; few fine roots; many very fine and fine and few medium interstitial pores; slightly effervescent; 80 percent pebbles; very strongly alkaline.

Type location: Humboldt County, Nevada; approximately 4 miles north and 1 mile west of Orovada; about 1,900 feet east and 500 feet north of the southwest corner of section 3, T. 43 N., R. 37 E.; (41 degrees, 37 minutes, 42 seconds north latitude and 117 degrees, 48 minutes, 03 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry June through October.

Soil temperature: 50 to 54 degrees F.

Depth to 2Bk1 horizon: 10 to 20 inches.

Control section:

Clay content--Averages up to 5 percent.

Rock fragments--Averages 50 to 80 percent, mainly pebbles.

A horizons:

Hue--10YR or 2.5Y.

Value--5 or 6 dry, 3 or 4 moist (5 dry and 3 moist only in the upper 3 inches).

Chroma--1 through 3.

Reaction--Neutral through moderately alkaline.

Bw horizon:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 through 4 (1 if dark sand grains are present).

Texture--Loam, sandy loam, fine sandy loam.

Structure--Very fine to medium granular or subangular blocky or it is massive.

Reaction--Neutral through moderately alkaline.

Bk and C horizons:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 3 through 6 moist.

Chroma--2 through 4 (1 if dark sand grains are present).

Texture--Stratified very gravelly sandy loam to extremely gravelly coarse sand.

Structure--Single grain or massive. Subangular blocky in subhorizons of some pedons.

Consistence--Loose to slightly hard, dry, loose to friable moist.

Reaction--Slightly alkaline to very strongly alkaline.

Menbo series

The Menbo series consists of moderately deep, well drained soils that formed in colluvium from volcanic rocks with additions of volcanic ash. Menbo soils are on plateaus and mountains. Slopes are 4 to 75 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, frigid Pachic Argixerolls

Typical pedon: Menbo very gravelly loam, 30 to 50 percent slopes, in an area of map unit 1341. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 15 percent pebbles and 8 percent cobbles.

A1--0 to 3 inches; dark grayish brown (10YR 4/2) very gravelly loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure parting to moderate fine granular; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine vesicular pores; 35 percent pebbles and 5 percent cobbles; neutral; abrupt smooth boundary.

A2--3 to 6 inches; dark grayish brown (10YR 4/2) very gravelly loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine tubular and interstitial pores; 35 percent pebbles and 5 percent cobbles; neutral; clear smooth boundary.

2Bt1--6 to 17 inches; brown (10YR 4/3) very gravelly clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; hard, firm, very sticky and plastic; common very fine and fine and few medium roots; many very fine and fine tubular and interstitial pores; common moderately thick

clay films on faces of peds and lining pores; 35 percent pebbles and 15 percent cobbles; neutral; clear smooth boundary.

2Bt2--17 to 26 inches; brown (7.5YR 4/2) very gravelly clay, dark brown (7.5YR 3/2) moist; moderate fine subangular blocky structure; hard, firm, very sticky and plastic; common very fine and fine roots; many very fine and fine tubular pores; many moderately thick pressure faces and clay films on faces of peds; 40 percent pebbles and 15 percent cobbles; neutral; abrupt wavy boundary.

2R--26 inches; fractured basalt; silica in fractures.

Type location: Humboldt County, Nevada; approximately 7 miles north of Kings River Ranch Headquarters; 1,300 feet south and 800 feet west of the northeast corner of section 19, T. 47 N., R. 33 E.; (41 degrees, 56 minutes, 40 seconds north latitude and 118 degrees, 18 minutes, 16 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring from mid July to November.

Soil temperature: 44 to 47 degrees F.

Depth to bedrock: 20 to 40 inches.

Mollic epipedon: 20 to 35 inches.

A horizons:

Chroma--2 or 3 dry.

Volcanic ash--This horizon contains 10 to 30 percent volcanic ash.

2Bt horizons:

Hue--10YR and 7.5YR.

Value--4 or 5 dry, 3 or 4 moist.

Chroma--2 through 4.

Clay content--35 to 50 percent.

Rock fragments--15 to 30 percent cobbles and stones and 20 to 40 percent gravel.

Texture--Very gravelly clay loam, very cobbly clay, or very gravelly clay.

Midraw series

The Midraw series consists of shallow to a duripan, well drained soils that formed in residuum and colluvium from rhyolite, andesite, basalt or rhyolitic tuff with a component of loess and volcanic ash. Midraw soils are on plateaus and hills. Slopes are 2 to 30 percent. The mean annual

precipitation is about 9 inches and the mean annual temperature is about 47 degrees.

Taxonomic class: Clayey, montmorillonitic, mesic, shallow Xerollic Durargids

Typical pedon: Midraw cobbly silt loam, 2 to 8 percent slopes, in an area of map unit 1313. (Colors are for dry soil unless otherwise noted) The soil surface is partially covered with 10 percent pebbles and 5 percent cobbles.

A1--0 to 2 inches; light gray (10YR 7/2) cobbly silt loam, brown (10YR 5/3) moist; strong thin and medium platy structure; slightly hard, friable, slightly sticky and slightly plastic; dilatent; common very fine roots; many very fine and fine vesicular pores; 5 percent pebbles and 10 percent cobbles; slightly alkaline; abrupt wavy boundary.

A2--2 to 4 inches; light gray (10YR 7/2) silty clay loam, brown (10YR 5/3) moist; strong thin platy structure; slightly hard, friable, sticky and slightly plastic; dilatent; common very fine and fine roots; many very fine, fine and medium vesicular pores; 10 percent pebbles and 2 percent cobbles; moderately alkaline; abrupt wavy boundary.

Bt1--4 to 6 inches; pale brown (10YR 6/3) gravelly clay, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine and fine roots; many very fine tubular pores; common thin clay films on faces of peds and lining pores; 15 percent pebbles and 5 percent cobbles; moderately alkaline; abrupt wavy boundary.

Bt2--6 to 9 inches; yellowish brown (10YR 5/4) gravelly clay loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine and fine roots; many very fine tubular and common very fine interstitial pores; common thin clay films on faces of peds and lining pores; 20 percent pebbles and 5 percent cobbles; moderately alkaline; clear wavy boundary.

Btqk--9 to 14 inches; pale brown (10YR 6/3) gravelly clay loam, yellowish brown (10YR 5/4) moist; moderate fine and medium subangular blocky structure; hard, friable, sticky and plastic; many very fine exped roots; common very fine tubular and interstitial pores; 10

percent weakly cemented durinodes, 15 percent coarse and very coarse indurated plate-like fragments; few thin clay films on faces of peds and lining pores; strongly effervescent; 20 percent pebbles and 5 percent cobbles; moderately alkaline; abrupt wavy boundary. Bqkm--14 to 28 inches; very pale brown (10YR 7/3) indurated duripan, brown (10YR 5/3) moist; 2 to 4 mm thick laminar silica cap. R--28 inches; fractured basalt with indurated material in the fractures.

Type location: Humboldt County, Nevada; about 1,200 feet north and 300 feet east of the apparent southwest corner of section 3, T. 47 N., R. 44 E.; (41 degrees, 59 minutes, and 55 seconds north latitude and 117 degrees, 03 minutes, and 02 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry in late June through October.

Soil temperature: 47 to 52 degrees F.

Depth to base of Bt horizon: 14 to 20 inches.

Depth to duripan: 14 to 20 inches.

Depth to bedrock: 20 to 35 inches.

Control section:

Clay content--35 to 45 percent.

Rock fragments--15 to 35 percent.

A horizons:

Value--6 or 7 dry, 3 through 5 moist.

Chroma--2 or 3.

Reaction--Neutral to moderately alkaline.

Bt horizons:

Value--5 or 6 dry, 3 through 5 moist.

Chroma--2 through 4.

Texture--Gravelly clay loam, gravelly silty clay loam, gravelly clay or cobbly clay.

Consistence--Friable, firm or very firm, moist.

Structure--Prismatic, subangular blocky or angular blocky.

Rock fragments--15 to 35 percent.

Reaction--Neutral to moderately alkaline.

Other features--Some pedons have durinodes or pan fragments in the lower subhorizon.

Bqkm horizon:

Hue--7.5YR or 10YR.

Value--5 through 7 dry, 4 or 5 moist.

Chroma--3 or 4.

Mulhop series

The Mulhop series consists of shallow, well drained soils that formed in residuum and colluvium from dolostone and limestone. Mulhop soils are on mountains. Slopes are 30 to 50 percent. The mean annual precipitation is about 11 inches and the mean annual temperature is about 45 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid
Lithic Xerollic Calciorthids

Typical pedon: Mulhop very cobbly loam, 30 to 50 percent slopes, is located in an area of map unit 1390. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with about 25 percent pebbles, 25 percent cobbles, and 1 percent stones.

A1--0 to 2 inches; pale brown (10YR 6/3) very cobbly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure parting to moderate medium granular; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine and fine interstitial pores; slightly effervescent; 25 percent pebbles, 25 percent cobbles, and 1 percent stones; moderately alkaline; abrupt smooth boundary.

A2--2 to 8 inches; pale brown (10YR 6/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure parting to strong medium granular; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine interstitial and common very fine vesicular and tubular pores; strongly effervescent; 35 percent pebbles and 10 percent cobbles; moderately alkaline; abrupt wavy boundary.

Bk1--8 to 12 inches; pale brown (10YR 6/3) very gravelly loam, dark yellowish brown (10YR 4/4) moist; moderate very fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine interstitial, vesicular and tubular pores; few fine soft filaments of lime; violently effervescent; 45 percent pebbles and 10 percent cobbles; moderately alkaline; clear wavy boundary.

Bk2--12 to 16 inches; light yellowish brown (10YR 6/4) extremely gravelly 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 fine roots; common very fine vesicular and tubular pores; common fine and few medium lime coats on pebbles and cobbles; common fine soft filaments of lime; violently effervescent; 45 percent pebbles and 10 percent cobbles; moderately alkaline.
R--16 inches; hard and very hard consolidated limestone and dolostone.

Type location: Humboldt County, Nevada; about 6 miles south of Winnemucca in Dry Canyon; about 1,900 feet south and 1,200 feet west of the northeast corner of section 28, T. 35 N., R. 38 E.; (40 degrees, 52 minutes, 50 seconds north latitude and 117 degrees, 42 minutes, 11 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter through early summer, dry mid June through October.

Soil temperature: 43 to 46 degrees F.

Depth to calcic horizon: 4 to 10 inches.

Depth to bedrock: 14 to 20 inches.

Control section:

Clay content--18 to 26 percent.

Rock fragments--35 to 60 percent, mainly pebbles.

Calcium carbonate equivalent--20 to 40 percent for the less than 20 millimeter material and 5 to 15 percent on the less than 2 millimeter material.

A horizons:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3.

Bk horizons:

Value--5 or 6 dry, 4 or 5 moist.

Chroma--3 or 4.

Texture--Very gravelly loam with extremely gravelly loam common in some subhorizons.

Structure--Subangular blocky or is massive.

Consistence--Soft or slightly hard dry, very friable or friable moist, slightly sticky or sticky and slightly plastic or plastic wet.

Needle Peak series

The Needle Peak series consists of very deep, somewhat poorly drained soils that formed in

alluvium from mixed rock sources with a component of loess and volcanic ash. Needle Peak soils are on inset fans, drainage channels, and stream terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Fine-silty, mixed (calcareous), mesic Oxyaquic Torriorthents

Typical pedon: Needle Peak silt loam, in an area of map unit 360. (Colors are for dry soil unless otherwise noted.)

A--0 to 4 inches; light brownish gray (2.5Y 6/2) silt loam, very dark grayish brown (2.5Y 3/2) moist; moderate thin platy structure that parts to weak very fine subangular blocky; slightly hard, friable, slightly sticky and slightly plastic; many very fine and medium roots; many very fine and fine interstitial and few fine vesicular pores; moderately alkaline; abrupt smooth boundary.

C--4 to 11 inches; light gray (10YR 7/2) silt loam, brown (10YR 4/3) moist; dark grayish brown (10YR 4/2) moist and crushed; massive; hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine tubular pores; strongly effervescent; moderately alkaline; clear smooth boundary.

Ck1--11 to 21 inches; light gray (10YR 7/2) silt loam, brown (10YR 4/3) moist; dark grayish brown (10YR 4/2) moist and crushed; weak medium subangular blocky structure; hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine and fine tubular pores; common fine white lime filaments and soft masses; strongly effervescent; strongly alkaline; clear smooth boundary.

Ck2--21 to 41 inches; light gray (2.5Y 7/2) silt loam, grayish brown (2.5Y 5/2) moist; few fine prominent yellowish brown (10YR 5/4) moist mottles; weak medium and fine subangular blocky structure; hard, friable, sticky and plastic; few fine and very fine roots; many very fine and fine tubular pores; few thin siliceous films lining pores; many fine faint white lime filaments and veins; strongly effervescent; strongly alkaline; clear smooth boundary.

Ck3--41 to 52 inches; white (2.5Y 8/2) silt loam, light brownish gray (2.5Y 6/2) moist; many fine prominent strong brown (7.5YR 5/6) moist

mottles; weak medium platy structure that parts readily to moderate fine subangular blocky; hard, friable, sticky and plastic; few very fine and fine roots; common very fine and fine tubular and interstitial pores; few crustacean shells; many fine faint white lime filaments; strongly effervescent; strongly alkaline; abrupt smooth boundary.

2C--52 to 65 inches; light gray (2.5Y 7/2) silt loam, grayish brown (2.5Y 5/2) moist; common medium prominent strong brown (7.5YR 5/6) moist mottles; weak thick platy structure that parts readily to strong coarse and medium angular blocky; very hard, firm, sticky and plastic; few very fine and fine roots; few fine and very fine tubular and many very fine and fine interstitial pores; common crustacean shells; strongly effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 8.5 miles southwest of Winnemucca; about 500 feet south and 2,500 feet west of the northeast corner of section 35, T. 35 N., R 37 E.; (40 degrees, 52 minutes, 14 seconds north latitude and 117 degrees, 47 minutes, 00 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry. These soils have a seasonal high water table at depths between 4 and 6 feet.

Soil temperature: 47 to 52 degrees F.

Depth to lime: Less than 10 inches.

Other features: Mottling occurs at depths below 20 inches in most pedons.

Control section:

Clay content--20 to 35 percent clay.

Calcium carbonate equivalent--less than 10 percent

A horizon:

Hue--10YR or 2.5Y

Value--3 or 4 moist.

Chroma--2 or 3.

Reaction--Slightly alkaline through strongly alkaline.

Other features--Slightly effervescent in some pedons.

C and Ck horizons:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 or 3.

Structure--Angular blocky, subangular blocky, massive, or platy.

Reaction--Moderately alkaline to very strongly alkaline.

Ninemile series

The Ninemile series consists of shallow, well drained soils that formed in residuum and colluvium from volcanic rocks with admixtures of volcanic ash. The Ninemile soils are on plateaus, hills, and mountains. Slopes are 4 to 50 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Clayey, montmorillonitic, frigid Lithic Argixerolls

Typical pedon: Ninemile very gravelly loam, 8 to 15 percent slopes, in an area of map unit 551. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 40 percent pebbles.

A--0 to 2 inches; grayish brown (10YR 5/2) very gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate medium platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine and fine interstitial and vesicular pores; 35 percent pebbles; neutral; abrupt smooth boundary.

Bt1--2 to 4 inches; grayish brown (10YR 5/2) clay, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine roots; many very fine and fine interstitial pores; common thin clay films lining pores and few thin clay films on faces of peds; 10 percent pebbles; neutral; abrupt smooth boundary.

Bt2--4 to 10 inches; grayish brown (10YR 5/2) gravelly clay, very dark grayish brown (10YR 3/2) moist; strong fine subangular blocky structure parting to strong fine granular; hard, friable, very sticky and very plastic; common thin clay films lining pores and few thin clay films on faces of peds; 15 percent pebbles; neutral; abrupt smooth boundary.

Bt3--10 to 14 inches; brown (7.5YR 5/2) clay, brown (7.5YR 4/4) moist; strong fine angular blocky structure; very hard, firm, very sticky

and very plastic; common fine and few medium roots; common very fine tubular pores; common moderately thick clay films on faces of peds and lining pores; few discontinuous silica laminae on surface of coarse fragments; few fine black stains on surface of coarse fragments; 10 percent pebbles; neutral; abrupt wavy boundary.

R--14 inches; hard rhyolite bedrock.

Type location: Humboldt County, Nevada; about 500 feet east and 2,300 feet south of the apparent northwest corner of section 25 T. 41 N., R. 44 E.; (41 degrees, 25 minutes, 26 seconds north latitude and 117 degrees, 00 minutes, 27 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist during the winter and spring, dry mainly during late June through early October.

Soil temperature: 44 to 47 degrees F.

Depth to bedrock: 10 to 20 inches.

Mollic epipedon: 6 to 18 inches; commonly includes part or all of the argillic horizon. (Mixed to 7 inches will be mollic)

Control section:

Clay content--Averages 40 to 60 percent.

Rock fragments--0 to 35 percent

A horizon:

Hue--10YR or 7.5YR

Value--3 through 5 dry, 2 or 3 moist.

Chroma--1 through 3.

Reaction--Slightly acid through moderately alkaline.

Other features--Surface 1 or 2 inches of some pedons have color value of 6 and are massive.

Bt horizons:

Hue--5YR, 7.5YR or 10YR.

Value--3 through 6 dry, 2 through 4 moist.

Chroma--2 through 4, lower subhorizons have chroma of 6 in some pedons.

Clay content--Typically 40 to 60 percent. Some subhorizons range to 35 percent.

Texture--Mainly clay or gravelly clay, but some subhorizons range to clay loam.

Rock fragments--0 to 30 percent pebbles or cobbles.

Structure--Moderate or strong subangular or angular blocky or prismatic.

Reaction--Neutral through moderately alkaline.
Other features--Some pedons are slightly hard dry, sticky and plastic wet in the Bt1 horizon.

R horizon:

Other features--In some pedons, where bedrock is less than 15 inches deep, the upper 1 to 3 inches of bedrock is weathered.

Nomara series

The Nomara series consists of moderately deep, well drained soils that formed in residuum and colluvium weathered from argillite, andesite, quartzite, and limestone. Nomara soils are on mountains. Slopes are 30 to 75 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid Calcic Pachic Argixerolls

Typical pedon: Nomara stony silt loam, 30 to 50 percent slopes, in an area of map unit 581.
(Colors are for dry soil unless otherwise noted.)

A1--0 to 4 inches; dark grayish brown (10YR 4/2) stony silt loam, very dark brown (10YR 2/2) moist; weak very thin platy structure; slightly hard, very friable, nonsticky and nonplastic; many very fine roots; many very fine interstitial pores; 5 percent pebbles, 3 percent cobbles and 1 percent stones; neutral; abrupt wavy boundary.

A2--4 to 10 inches; grayish brown (10YR 5/2) silt loam, very dark grayish brown (10YR 3/2) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common very fine roots; many very fine interstitial pores; 5 percent pebbles; neutral; clear wavy boundary.

A3--10 to 19 inches; grayish brown (10YR 5/2) gravelly silt loam, dark brown (10YR 3/3) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine and fine roots; many very fine interstitial pores; 10 percent pebbles and 5 percent cobbles; slightly alkaline; abrupt wavy boundary.

Bt--19 to 34 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak very fine subangular blocky structure; very hard, friable, sticky and plastic; few very fine roots; few very fine interstitial and tubular

pores; few thin clay films on faces of peds and lining pores; 40 percent pebbles; slightly alkaline; abrupt wavy boundary.

Btk--34 to 40 inches; brown (10YR 5/3) extremely gravelly clay loam, dark yellowish brown (10YR 4/4) moist; massive; very hard, friable, very sticky and very plastic; few very fine roots; few very fine tubular pores; common thin clay films lining pores; many medium soft masses of lime; violently effervescent; 60 percent pebbles and 20 percent cobbles; strongly alkaline; abrupt irregular boundary.

2R--40 inches; fractured argillite with lime coating fractures.

Type location: Humboldt County, Nevada; approximately 4 miles southeast of Winnemucca, about 1,600 feet north and 2,400 feet east of the southwest corner of section 12, T. 35 N., R. 38 E.; (40 degrees, 55 minutes, 12 seconds north latitude and 117 degrees, 39 minutes, 08 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry from July through September.

Soil temperature: 40 to 47 degrees F.

Mollic epipedon thickness: 20 to 36 inches.

Depth to bedrock: 20 to 40 inches.

Depth to carbonates: 17 to 36 inches.

A horizons:

Hue--10YR or 7.5YR

Value--4 or 5 dry, 2 through 3 moist.

Chroma--1 through 3.

Bt horizons:

Value--4 or 5 dry, 2 through 4 moist.

Texture--Very gravelly silt loam, very gravelly loam, or extremely gravelly clay loam.

Clay content--20 to 35 percent.

Rock fragments--40 to 80 percent.

Consistence--Hard or very hard, dry.

Reaction--Slightly alkaline in upper part, moderately alkaline or strongly alkaline in the lower part.

Ola series

The Ola series consists of moderately deep, well drained soils that formed in residuum from granitic

rocks. Ola soils are on mountains. Slopes range from 15 to 50 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Coarse-loamy, mixed, frigid Pachic Haploxerolls

Typical pedon: Ola very bouldery sandy loam, 30 to 50 percent slopes, in an area of map unit 1332. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles, 5 percent stones, and 3 percent boulders.

A1--0 to 3 inches; dark grayish brown (10YR 4/2) very bouldery sandy loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure parting to moderate fine granular; soft, very friable, slightly sticky and nonplastic; many very fine roots; many very fine and fine interstitial pores; 35 percent pebbles, 2 percent cobbles, 5 percent stones and 3 percent boulders; neutral; abrupt smooth boundary.

A2--3 to 9 inches; dark grayish brown (10YR 4/2) gravelly coarse sandy loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure parting to moderate fine granular; soft, very friable, slightly sticky and nonplastic; many very fine and fine roots; many very fine and fine interstitial and tubular pores; 25 percent pebbles and 5 percent cobbles; neutral; abrupt smooth boundary.

A3--9 to 17 inches; brown (10YR 5/3) gravelly coarse sandy loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and nonplastic; many very fine and fine roots; many very fine and fine tubular and interstitial pores; 25 percent pebbles; neutral; clear smooth boundary.

A4--17 to 23 inches; brown (10YR 5/3) gravelly coarse sandy loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; soft, very friable, slightly sticky and nonplastic; common very fine and fine roots; many very fine and fine tubular and interstitial pores; 25 percent pebbles; neutral; clear smooth boundary.

C--23 to 28 inches; brown (10YR 5/3) gravelly coarse sandy loam, dark brown (10YR 3/3) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and fine roots;

many very fine and fine tubular and interstitial pores; 25 percent pebbles; neutral; abrupt wavy boundary.

Cr--28 to 40 inches; guss that can be dug with difficulty with a spade.

R--40 inches; fractured bedrock.

Type location: Humboldt County, Nevada; approximately 3.5 miles east of Trident Peak; about 2,200 feet west and 200 feet south of the northeast corner of section 2, T. 46 N., R. 32 E.; (41 degrees, 54 minutes, 07 seconds north latitude and 118 degrees, 21 minutes, 03 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry July through September.

Soil temperature: 42 to 47 degrees F.

Depth to bedrock: 20 to 40 inches.

Reaction (pH): Slightly acid or neutral throughout.

Other features: Mollic colors commonly extend to bedrock.

A horizons:

Value--3 through 5 dry, 2 or 3 moist.

Chroma--1 through 3 dry or moist.

C horizon:

Value--5 through 8 dry, 2 through 6 moist.

Chroma--2 or 3 dry or moist.

Texture--Loam, sandy loam, coarse sandy loam, gravelly coarse sandy loam, or gravelly sandy loam.

Orovada series

The Orovada series consists of very deep, well drained soils that formed in loess high in volcanic ash over alluvium from mixed rock sources. The Orovada soils are on fan skirts, fan aprons and inset fans. Slopes are 0 to 8 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Coarse-loamy, mixed, mesic Durixerollic Camborthids

Typical pedon: Orovada fine sandy loam, 0 to 2 percent slopes, in an area of map unit 403. (Colors are for dry soil unless otherwise noted.)

A--0 to 2 inches; light brownish gray (10YR 6/2) fine sandy loam, dark brown (10YR 3/3) moist; weak medium and thin platy structure; slightly hard, very friable, nonsticky and nonplastic; few fine roots; many fine and medium vesicular and few very fine tubular pores; slightly alkaline; abrupt smooth boundary.

Bw1--2 to 8 inches; light brownish gray (10YR 6/2) loam, dark grayish brown (10YR 4/2) moist; weak coarse subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; many very fine and few fine roots; many very fine interstitial and common very fine tubular pores; slightly alkaline; clear smooth boundary.

Bw2--8 to 14 inches; light gray (10YR 7/2) fine sandy loam, dark grayish brown (10YR 4/2) moist; weak medium and coarse subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; many very fine, common fine and few medium roots; many very fine interstitial and few very fine and fine tubular pores; slightly alkaline; clear smooth boundary.

Bq--14 to 26 inches; pale brown (10YR 6/3) fine sandy loam, dark grayish brown (10YR 4/2) moist; weak coarse and medium subangular blocky structure; slightly hard, friable, nonsticky and nonplastic; common very fine roots; common very fine interstitial and few very fine and fine tubular pores; 20 percent 1 inch durinodes that are very hard, firm and brittle when wet; moderately alkaline; clear wavy boundary.

Bqk1--26 to 34 inches; light brownish gray (2.5Y 6/2) very fine sandy loam, dark grayish brown (2.5Y 4/2) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine and fine roots; common very fine interstitial and few very fine tubular pores; 70 percent 3/4 to 1 1/2 inch durinodes that are very hard, firm and brittle when wet; common fine and medium distinct white (10YR 8/1) lime segregations; strongly effervescent; very strongly alkaline; clear wavy boundary.

Bqk2--34 to 48 inches; light brownish gray (10YR 6/2) silt loam, dark grayish brown (2.5Y 4/2) moist; massive; slightly hard, friable, nonsticky and nonplastic; few very fine and fine roots; common very fine interstitial and few very fine tubular pores; 60 percent 1/2 to 1 inch durinodes that are hard, firm and brittle when wet; few medium and coarse distinct white (10YR 8/1) lime segregations; strongly

effervescent; very strongly alkaline; clear wavy boundary.

Bq--48 to 61 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; massive; slightly hard, friable, nonsticky and nonplastic; few very fine roots; common very fine interstitial and few very fine tubular pores; 10 percent 1/2 to 1 inch durinodes that are hard, firm and brittle when wet; strongly effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 2.3 miles west and 0.5 mile south of Orovada; about 200 feet west and 2,440 feet south of the northeast corner of section 32, T. 43 N., R. 37 E.; (41 degrees, 33 minutes, 49 seconds north and 117 degrees, 49 minutes, 42 seconds west.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry from late June through early November.

Soil temperature: 47 to 52 degrees F.

Depth to Bq or Bqk horizon: 10 to 28 inches.

Control section:

Clay content--5 to 18 percent.

Rock fragments--0 to 15 percent, mainly pebbles.

Other features--When mixed, value of the upper 7 inches is greater than 5.5 dry and 3.5 moist.

A horizon:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 3 or 4 moist.

Chroma--2 through 4.

Reaction--Neutral to moderately alkaline.

Bw horizons:

Hue--10YR or 2.5Y.

Value--6 through 8 dry; 3 through 6 moist.

Chroma--2 through 6.

Texture--Fine sandy loam, very fine sandy loam, loam, silt loam with strata of loamy fine sand or sandy loam in some pedon.

Clay content--5 to 18 percent.

Rock fragments--Averages 0 to 15 percent pebbles.

Structure--Subangular blocky, prismatic, or horizon is massive.

Consistence--Very friable or friable moist.

Reaction--Slightly alkaline or moderately alkaline.

Bq or Bqk horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 3 through 5 moist.

Chroma--2 through 6.

Texture--Fine sandy loam, very fine sandy loam, loam, silt loam with strata of loamy fine sand or sandy loam in some pedon.

Rock fragments--Up to 30 percent pebbles in some subhorizons of some pedons.

Consistence--Soft to hard and very friable or friable.

Reaction--Moderately alkaline to very strongly alkaline, commonly increasing with depth.

Cementation--Contains 20 to 80 percent durinodes. Subhorizons with less than 20 percent durinodes are common below 40 inches in some subhorizons

Other features--Gypsum crystals are below depths of 37 inches in some pedons.

Duripans or very gravelly strata are found below depths of 40 inches in some pedons.

Oxcorel series

The Oxcorel series consists of very deep, well drained soils formed in alluvium from mixed rock sources with some influence from loess. These soils are on fan remnants and plateaus. Slopes are 2 to 30 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine, montmorillonitic, mesic Duric Natrargids

Typical pedon: Oxcorel gravelly very fine sandy loam, 2 to 8 percent slopes, in an area of map unit 660. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 30 percent pebbles and 1 percent cobbles.

A--0 to 5 inches; light gray (10YR 7/2) gravelly very fine sandy loam, dark grayish brown (10YR 4/2) moist; moderate very thin platy structure; soft, very friable, slightly sticky and slightly plastic; many very fine roots; many very fine tubular pores; 25 percent pebbles; moderately alkaline; clear smooth boundary.

Btn--5 to 16 inches; light gray (10YR 7/2) clay loam, brown (10YR 5/3) moist; strong medium prismatic structure; slightly hard, friable, sticky and plastic; common fine roots; many very fine tubular pores; few thin clay films on faces of peds; 10 percent pebbles; moderately alkaline; clear wavy boundary.

2Btnqk--16 to 24 inches; pale brown (10YR 6/3) clay, brown (10YR 5/3) moist; strong fine prismatic structure; hard, firm, very sticky and very plastic; many fine roots mainly expd; few very fine tubular pores; common thin clay films on faces of peds; few thin lime-silica pendants on pebbles; slightly effervescent; 10 percent pebbles; very strongly alkaline; clear wavy boundary.

3Bqk1--24 to 35 inches; pale brown (10YR 6/3) very gravelly loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few fine roots; few very fine tubular pores; 20 percent durinodes; lime and silica on the underside of pebbles; violently effervescent; 35 percent pebbles; very strongly alkaline; gradual wavy boundary.

3Bqk2--35 to 60 inches; very pale brown (10YR 7/3) very gravelly loam, brown (10YR 5/3) moist; massive; soft, very friable, slightly sticky and slightly plastic; few fine roots; 20 percent durinodes; many moderately thick lime and silica coatings on coarse fragments; violently effervescent; 50 percent pebbles and 5 percent cobbles; very strongly alkaline.

Type location: Humboldt County, Nevada; about 1,700 feet east and 1,400 feet north of the southwest corner of section 34, T. 33 N., R. 40 E.; (40 degrees, 41 minutes, 15 seconds north latitude and 117 degrees, 27 minutes, 54 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods in winter and early spring.

Soil temperature: 47 to 52 degrees F.

Depth to base of natric horizon: 20 to 40 inches.

Depth to durinodes: 20 to 34 inches.

Other features: Some pedons have 1/2 to 2 inch thick E horizons capping the Bt horizon.

Control section:

Clay content--35 to 50 percent.

Rock fragments--0 to 10 percent pebbles in the upper part, 10 to 20 percent pebbles in the lower part.

A horizon:

Value--6 or 7 dry, 3 through 5 moist.

Chroma--2 or 3.

Btn horizons:

Hue--7.5YR or 10YR.

Value--5 through 7 dry, 4 through 6 moist.

Chroma--3 through 6, chroma of 2 is common in the upper subhorizon of some pedons.

Texture--Clay or clay loam.

Reaction--Moderately alkaline to very strongly alkaline.

Consistence--Slightly hard to very hard dry; friable to very firm, moist; sticky or very sticky wet.

SAR--30 to 40 in the upper part; 40 to 60 in the lower part.

Carbonates--Matrix is noneffervescent to strongly effervescent in the upper part and commonly has segregated lime in the lower part.

Cementation--10 to 30 percent durinodes are common in the lower subhorizon.

Other features--Gypsum is common in the lower subhorizons of some pedons.

Bqk horizons:

Value--5 through 7 dry, 4 through 6 moist.

Chroma--3 through 6.

Rock fragments--35 to 60 percent.

Textures--Very gravelly sandy loam or very gravelly loam.

Cementation--20 to 60 percent, weakly or strongly cemented durinodes with up to 30 percent discontinuous weak cementation common.

Consistence--Soft to hard, dry; very friable to firm moist; nonsticky or slightly sticky and nonplastic or slightly plastic, wet.

Reaction--Moderately alkaline through very strongly alkaline.

Other features--Some pedons have subhorizons with less than 20 percent durinodes in the upper part.

Panlee series

The Panlee series consists of deep, well drained soils that formed in residuum and colluvium from

mixed rock sources with components of loess and volcanic ash. The Panlee soils are on hills and mountains. Slopes are 8 to 50 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Loamy-skeletal, mixed, mesic Xerollic Camborthids

Typical pedon: Panlee gravelly very fine sandy loam, 30 to 50 percent slopes, in an area of map unit 1420. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 15 percent pebbles and 5 percent cobbles.

A1--0 to 3 inches; brown (10YR 5/3) gravelly very fine sandy loam, dark brown (10YR 3/3) moist; massive; slightly hard, very friable, nonsticky and slightly plastic; many very fine roots; many very fine interstitial pores; 15 percent pebbles and 5 percent cobbles; neutral; clear wavy boundary.

A2--3 to 10 inches; pale brown (10YR 6/3) very fine sandy loam, dark brown (10YR 3/3) moist; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine roots; many very fine interstitial and common very fine and fine tubular pores; neutral; clear smooth boundary.

Bw--10 to 29 inches; pale brown (10YR 6/3) very cobbly very fine sandy loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; slightly hard, friable, nonsticky and slightly plastic; common very fine and few fine and medium roots; many very fine interstitial and common very fine tubular pores; 20 percent pebbles and 15 percent cobbles; slightly alkaline; clear wavy boundary.

Bq--29 to 35 inches; pale brown (10YR 6/3) very gravelly silt loam, brown (10YR 4/3) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; common very fine interstitial and common very fine tubular pores; 10 percent weakly cemented durinodes; 35 percent pebbles and 10 percent cobbles; slightly alkaline; clear wavy boundary.

Bqk--35 to 42 inches; pale brown (10YR 6/3) very gravelly very fine sandy loam, brown (10YR 5/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common very fine and medium roots; common very fine tubular pores; few thin silica bridges on sand

grains that are slightly brittle when wet; lime is disseminated; strongly effervescent; 45 percent pebbles and 10 percent cobbles; slightly alkaline; abrupt wavy boundary.

2Bqkm--42 to 45 inches; white (10YR 8/2) indurated duripan, pale brown (10YR 6/3) moist; massive; very hard, very firm; continuous 1 to 2 millimeter thick horizontal silica laminae that is very rigid; lime is disseminated, violently effervescent; moderately alkaline; abrupt wavy boundary.

3R--45 inches; fractured andesite with silica coating fractures.

Type location: Humboldt County, Nevada, approximately 7 miles north of Winnemucca in the Krum Hills, about 1,900 feet west and 1,750 feet south of the northeast corner of section 24, T. 37 N., R. 37 E.; (41 degrees, 04 minutes, 18 seconds north latitude and 117 degrees, 45 minutes, 38 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist December through May and dry from June through November.

Soil temperature: 47 to 52 degrees F.

Combined thickness of the A and Bw horizons: 20 to 35 inches.

Depth to lime: 30 to 40 inches.

Depth to duripan: 40 to 59 inches.

Depth to bedrock: 41 to 60 inches.

Control section:

Clay content--8 to 15 percent.

Rock fragments--35 to 60 percent, mainly pebbles and cobbles.

A horizons:

Hue--10YR or 2.5Y.

Value--5 or 6 dry, 3 through 5 moist; when the upper 7 inches are mixed, value is greater than 5.5 dry.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bw horizon:

Value--6 or 7 dry, 4 through 6 moist.

Chroma--3 or 4.

Reaction--Neutral or slightly alkaline.

Texture--Very gravelly or very cobbly, very fine sandy loam or silt loam.

Other features--Some pedons have discontinuous pockets and lenses of weakly cemented durinodes along the lower horizon boundary.

Bqk and Bq:

Value--5 through 7 dry; 4 or 5 moist.

Chroma--2 through 4.

Structure--Subangular blocky or the horizon is massive.

Texture--Very gravelly or very cobbly, very fine sandy loam or silt loam.

Consistence--Slightly hard or hard, dry.

Reaction--Slightly alkaline or moderately alkaline.

Carbonates--Bqk horizons are slightly effervescent to violently effervescent.

Silica cementation or durinodes--Have up to 15 percent weakly cemented durinodes or few or common weak silica bridges between sand grains.

Paranat series

The Paranat series consists of very deep, poorly drained soils that formed in silty alluvial deposits. Paranat soils are on floodplains and stream terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine-silty, mixed (calcareous), mesic Fluvaquentic Endoaquolls

Typical pedon: Paranat silt loam, 0 to 2 percent slopes, in an area of map unit 1061. (Colors are for dry soil unless otherwise noted.)

A1--0 to 5 inches; gray (10YR 5/1) silt loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure; slightly hard, friable, sticky and slightly plastic; many very fine and fine and common medium roots; many very fine and common fine and medium tubular pores; common white shell fragments; violently effervescent; moderately alkaline; abrupt smooth boundary.

A2--5 to 14 to inches; gray (10YR 5/1) silty clay loam, very dark grayish brown (10YR 3/2) moist; moderate coarse prismatic structure; hard, friable, sticky and plastic; many very fine and fine and common medium roots; many very

fine and common fine and few medium tubular pores; common white shell fragments; violently effervescent; moderately alkaline; abrupt smooth boundary.

A3--14 to 19 inches; gray (10YR 5/1) silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine and common fine and medium roots; many very fine and common fine tubular pores; common white shell fragments; violently effervescent; moderately alkaline; abrupt smooth boundary.

C1--19 to 33 inches; light gray (10YR 7/1) silty clay loam, grayish brown (10YR 5/2) moist; few fine faint very pale brown (10YR 7/3) mottles, brown (10YR 5/3) moist; massive; slightly hard, friable, sticky and plastic; many very fine and fine and few medium roots; many very fine and fine and common medium tubular pores; common white shell fragments; violently effervescent; strongly alkaline; clear smooth boundary.

C2--33 to 48 inches; light brownish gray (10YR 6/2) silty clay loam, grayish brown (10YR 5/2) moist; common fine faint pale brown (10YR 6/3) mottles, yellowish brown (10YR 5/4) moist; massive; slightly hard, friable, sticky and plastic; many very fine and fine and few medium roots; many very fine and fine and common medium tubular pores; common white shell fragments; common earthworm casts and tunnels; violently effervescent; strongly alkaline; abrupt smooth boundary.

Ck--48 to 60 inches; light brownish gray (2.5Y 6/2) silt loam, dark grayish brown (2.5Y 4/2) moist; common fine prominent light yellowish brown (10YR 6/4) mottles, yellowish brown (10YR 5/4) moist; massive; slightly hard, friable, sticky and plastic; common very fine, fine and medium roots; many very fine and fine tubular pores; common white shell fragments; common earthworm cast and tunnels; common fine white (10YR 8/2) lime filaments and soft masses; violently effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 2 miles south of the Valmy power plant; about 500 feet south and 600 feet east of the northwest corner of section 5, T. 34 N., R. 43 E.; (40 degrees, 51 minutes, 27 seconds north latitude and 117 degrees, 09 minutes, 56 seconds west longitude.)

Range in characteristics:

Soil moisture: Dry in mid-summer and early fall, moist in late fall, winter, spring and early summer. Apparent seasonal water table is between 18 and 40 inches in winter to early summer months. Drained phases are recognized.

Soil temperature: 47 to 52 degrees F.

Thickness of mollic epipedon: 10 to 20 inches.

Calcium carbonate equivalent: 1 to 10 percent.

Effervescence: The soil is effervescent throughout.

Reaction: Moderately alkaline to strongly alkaline.

Exchangeable sodium: 0 to 15 percent.

Control section:

Clay content--18 to 35 percent.

Rock fragments--Less than 5 percent.

A horizons:

Hue--10YR or 2.5Y.

Value--4 or 5 dry, 2 or 3 moist.

Chroma--1 or 2.

Other features--One or more buried A horizons up to 8 inches thick occur in some pedons.

C horizons:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 4 through 7 moist.

Chroma--1 through 4.

Texture--Stratified silty clay loam and silt loam with thin strata of very fine sandy loam or silty clay in some pedons.

Carbonates--Up to 15 percent lime filaments, soft masses, or concretions in some pedons with up to 40 percent in some subhorizons below 40 inches.

Consistence--Soft or slightly hard, dry, very friable or friable, moist.

Piline series

The Piline series consists of very deep, poorly drained soils that formed in alluvium from mixed sources. Piline soils are on lake plains. Slopes are 0 to 2 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Fine, montmorillonitic, mesic Xeric Epiaquerts

Typical pedon: Piline silty clay loam, 0 to 2 percent

slopes, in an area of map unit 760. (Colors are for dry soil unless otherwise noted.) The soil surface has gilgai that are 1 to 3 inches high, and has 1/2 to 5 inch wide cracks that range from 20 inches deep to more than 40 inches deep.

A1--0 to 2 inches; light brownish gray (2.5Y 6/2) silty clay loam, grayish brown (2.5Y 5/2) moist; strong fine granular structure; slightly hard, friable, very sticky and very plastic; common very fine roots; many very fine interstitial pores; neutral; abrupt wavy boundary.

A2--2 to 4 inches; light brownish gray (2.5Y 6/2) silty clay loam, grayish brown (2.5Y 5/2) moist; moderate medium and thick platy structure parting to strong medium angular blocky; hard, friable, very sticky and very plastic; many very fine and common fine roots; common very fine tubular pores; slightly alkaline; abrupt wavy boundary.

A3--4 to 13 inches; light brownish gray (2.5Y 6/2) silty clay, grayish brown (2.5Y 5/2) moist; strong medium and coarse prismatic structure parting to medium angular blocky; hard, firm, very sticky and very plastic; common very fine and few fine and medium exped roots; common very fine tubular pores; slightly alkaline; clear smooth boundary.

Bss1--13 to 30 inches; light brownish gray (2.5Y 6/2) silty clay, grayish brown (2.5Y 5/2) moist; few fine distinct yellowish brown (10YR 5/4) mottles; strong coarse prismatic structure; hard, firm, very sticky and very plastic; common very fine exped roots; few very fine tubular pores; many intersecting slickensides; slightly alkaline; clear smooth boundary.

Bss2--30 to 43 inches; light brownish gray (2.5Y 6/2) silty clay, grayish brown (2.5Y 5/2) moist; few fine distinct yellowish brown (10YR 5/4) mottles; moderate fine angular blocky structure; hard, firm, very sticky and very plastic; few very fine and fine exped roots; few very fine tubular pores; many intersecting slickensides; slightly alkaline; clear wavy boundary.

C3--43 to 60 inches; light brownish gray (2.5Y 6/2) silty clay, grayish brown (2.5Y 5/2) moist; massive; hard, firm, very sticky and very plastic; few very fine roots; few very fine tubular pores; few fine soft masses and filaments of lime; few manganese concretions;

slightly effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; near Button Lake about 1,800 feet south and 2,200 feet east of the apparent northwest corner of section 35, T. 44 N., R. 44 E.; (41 degrees, 40 minutes, 21 seconds north latitude and 117 degrees, 01 minute, 12 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, with a perched water table at 0 to 24 inches from January to July, dry late May through November. Ponding on the soil surface is common in most years.

Soil temperature: 47 to 52 degrees F.

Reaction: Neutral to moderately alkaline; subhorizon in the lower part are moderately alkaline in some pedons.

Control section:

Clay content--35 to 50 percent.

Other features: When, dry vertical cracks 1 centimeter or more wide extend to a depth of more than 40 inches. The cracks are closed for more than 60 consecutive days in the early spring. Gilgai are 2 to 10 centimeters in height. Few to many iron-manganese concretions can occur in any horizon.

A horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 through 6 moist.

Chroma--2 or 3

Bss and C horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 5 or 6 moist.

Chroma--1 or 2.

Texture--Dominantly clay or silty clay but contain clay loam in the lower substratum.

Structure--Prismatic, subangular blocky, angular blocky, or massive.

Slickensides--Common to many intersecting slickensides.

Iron mottles--Few to many, fine to medium in some subhorizons but decreasing with depth.

Redox concentrations--Absent within 2 meters of the soil surface.

Pocan series

The Pocan series consists of deep, well drained soils that formed in colluvium and residuum from quartzite, slate, shale, sandstone and chert. Pocan soils are on mountains. Slopes are 30 to 50 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine-loamy, mixed, mesic Xerollic Camborthids

Typical pedon: Pocan stony loam, 30 to 50 percent slopes, in an area of map unit 592. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 10 percent pebbles and 1 percent stones.

A1--0 to 4 inches; brown (10YR 5/3) stony loam, dark brown (10YR 3/3) moist; weak medium platy structure parting to moderate fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine roots; many very fine interstitial pores; 10 percent pebbles and 1 percent stones; neutral; abrupt wavy boundary.

A2--4 to 9 inches; brown (10YR 5/3) loam, brown (10YR 4/3) moist; weak medium platy structure parting to moderate medium subangular blocky; soft, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine vesicular and tubular pores; 2 percent pebbles; slightly alkaline; clear smooth boundary.

Bw--9 to 20 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; moderate 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 few fine and medium tubular pores; 5 percent 1/2 inch thick very weakly silica-cemented plates in the lower two inches; 7 percent pebbles; slightly alkaline; clear wavy boundary.

Bqk--20 to 31 inches; very pale brown (10YR 7/3) gravelly loam, brown (10YR 5/3) moist; moderate coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; many very fine and few fine and medium tubular and vesicular pores; 15 percent 1/2 inch thick very weakly silica-cemented plates; common fine soft

filaments and soft masses of lime; 15 percent pebbles; violently effervescent; moderately alkaline; clear wavy boundary.

Bqk2--31 to 43 inches; very pale brown (10YR 7/3) gravelly loam, brown (10YR 5/3) moist; massive; soft, very friable, slightly sticky and slightly plastic; many very fine roots; common very fine and few fine and medium tubular and vesicular pores; 5 percent 3/4 inch diameter strongly cemented durinodes; 25 percent pebbles; strongly effervescent; moderately alkaline; abrupt wavy boundary.

Bqkm--43 to 47 inches; white (10YR 8/2) continuously indurated duripan, very pale brown (10YR 7/3) moist; massive; very rigid; abrupt wavy boundary.

R--47 inches; hard fractured quartzite bedrock with lime and silica filling fractures.

Type location: Humboldt County, Nevada; approximately 6 miles east of Winnemucca; about 1,000 feet north and 1,700 feet west of the southeast corner of section 20, T. 36 N., R. 39 E.; (40 degrees, 58 minutes, 37 seconds north latitude and 117 degrees, 36 minutes, 22 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry early June through early November.

Soil temperature: 47 to 52 degrees F.

Depth to carbonates: 20 to 38 inches.

Depth to bedrock: 40 to 60 inches.

Other features: Indurated duripans are below 40 inches in some pedons

Control section:

Clay content--18 to 25 percent.

Rock fragments--5 to 35 percent.

A horizons:

Value--6 or 7 dry, 3 through 5 moist.

Reaction--Neutral or slightly alkaline.

Remarks--Horizons with mollic colors do not meet the thickness requirements for a mollic epipedon.

Bw horizon:

Texture--Loam or gravelly loam

Value--5 or 6 dry.

Rock fragments--5 to 35 percent.

Reaction--Neutral or slightly alkaline.

Other features--The lower 2 or 3 inches of the Bw horizon is slightly effervescent in some pedons.

Bk horizons:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--3 or 4.

Structure--Angular blocky or subangular blocky; lower subhorizons are massive in some pedons.

Rock fragments--15 to 35 percent.

Reaction--Moderately alkaline or strongly alkaline.

Other features--Some pedons have up to 20 percent durinodes or weakly silica-cemented plates.

Preble series

The Preble series consists of very deep, somewhat poorly drained soils that formed in alluvium from mixed rocks and lake sediments with a component of pyroclastic materials. Preble soils are on lake plains, alluvial flats and basin floor remnants. Slopes are 0 to 2 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Coarse-loamy, mixed (calcareous), mesic Oxyaquic Torriorthents

Typical pedon: Preble very fine sandy loam, in an area of map unit 431. (Colors are for dry soil unless otherwise noted.)

A--0 to 4 inches; light gray (10YR 7/2) very fine sandy loam, dark grayish brown (10YR 4/2) moist; weak medium platy structure; slightly hard, very friable, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine vesicular pores; slightly effervescent; strongly alkaline; abrupt smooth boundary.

C--4 to 10 inches; light gray (10YR 7/2) very fine sandy loam, brown (10YR 5/3) moist; massive; hard, friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and few fine tubular pores; slightly effervescent; very strongly alkaline; abrupt smooth boundary.

Cq1--10 to 25 inches; light gray (2.5Y 7/2) micaceous fine sandy loam, light olive brown (2.5Y 5/4) moist; massive; very hard, firm and

brittle, nonsticky and nonplastic; common very fine and few fine roots; few very fine and fine tubular, many very fine interstitial pores; slightly effervescent; continuous brittle matrix; very strongly alkaline; clear smooth boundary.

Cq2--25 to 41 inches; light gray (2.5Y 7/2) very fine sandy loam, light olive brown (2.5Y 5/4) moist; massive; hard, firm, nonsticky and slightly plastic; common very fine and few fine roots; few very fine and fine tubular, many very fine interstitial pores; very thin silica films in some pores, few 1/2 to 3/4 inch diameter very hard and very firm durinodes; strongly effervescent; continuous brittle matrix; very strongly alkaline; clear wavy boundary.

Cqk--41 to 55 inches; light gray (2.5Y 7/2) fine sandy loam, grayish brown (2.5Y 5/2) moist; massive; very hard, very firm and brittle, nonsticky and nonplastic; few very fine and fine roots; many very fine interstitial, few very fine tubular pores; common durinodes; strongly effervescent; few large white (2.5Y 8/2) soft seams of lime; strongly effervescent; continuous brittle matrix; very strongly alkaline; abrupt wavy boundary.

2C'--55 to 65 inches; light gray (2.5Y 7/2) micaceous gravelly sand, grayish brown (2.5Y 5/2) moist; common medium distinct yellowish brown (10YR 5/6) and brownish yellow (10YR 6/8) mottles, dark yellowish brown (10YR 4/4) moist; single grain; loose, nonsticky and nonplastic; few very fine and fine roots; many very fine interstitial pores; slightly effervescent; 25 percent fine pebbles; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 3.5 miles southwest of Winnemucca on U.S. Highway 40, about 50 feet north of road, about 1,000 feet east and 1,600 feet north of the southwest corner of section 2, T. 35 N., R. 37 E.; (40 degrees, 56 minutes, 07 seconds north latitude and 117 degrees, 47 minutes, 25 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry July through October.

Soil temperature: 47 to 52 degrees F.

Depth to continuous brittle matrix: 8 to 14 inches.

Control section:

Clay content--8 to 15 percent.

A horizon:

Hue--10YR or 2.5Y. Value--6 or 7 dry, 4 or 5 moist.

Reaction--Moderately alkaline or strongly alkaline.

Cq and Cqk horizons:

Hue--10YR, 2.5Y or 5Y.

Value--6 or 7 dry, 4 or 5 moist.

Texture--Very fine sandy loam or fine sandy loam.

Reaction--Moderately alkaline to very strongly alkaline.

Cementation--The Cq horizon has a continuous brittle matrix in at least the upper part and has 20 to 75 percent durinodes in some subhorizon.

Other features--Some pedons are underlain by sandy clay loam substrata below 40 inches.

Prideen series

The Prideen series consists of very deep, somewhat poorly drained soils that formed in silty alluvium from mixed rock sources and volcanic ash. Prideen soils are on alluvial flats and stream terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Fine-silty, mixed (calcareous), mesic Aquic Durorthidic Torriorthents

Typical pedon: Prideen silt loam, in an area of map unit 440. (Colors are for dry soil unless otherwise noted.)

A--0 to 7 inches; light brownish gray (10YR 6/2) silt loam, dark grayish brown (10YR 4/2) moist; weak thin platy structure; hard, friable, slightly sticky and slightly plastic; many very fine and few fine roots; few very fine and fine vesicular pores; slightly alkaline; clear smooth boundary.

Czy--7 to 15 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine and common fine tubular pores; common fine white (10YR 8/2)

filaments and soft masses of gypsum and soluble salts; slightly effervescent; slightly alkaline; clear smooth boundary.

Cy1--15 to 25 inches, very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; massive; hard, friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine tubular pores; few very fine white (10YR 8/2) filaments and soft masses of gypsum; slightly effervescent; slightly alkaline; abrupt smooth boundary.

Cy2--25 to 36 inches, light gray (2.5Y 7/2) silty clay loam, grayish brown (2.5Y 5/2) moist; weak fine subangular blocky structure; hard, friable, slightly sticky and slightly plastic; many very fine and few fine roots; common very fine and fine tubular pores, mainly exped; few fine white (10YR 8/2) filaments and crystals of gypsum; slightly effervescent; slightly alkaline; clear smooth boundary.

2Cqy--36 to 46 inches; light gray (2.5Y 7/2) silty clay loam, grayish brown (2.5Y 5/2) moist; few fine and medium distinct yellowish brown (10YR 5/4) iron mottles, very dark grayish brown (10YR 3/2) moist; moderate medium and fine angular blocky structure; very hard, firm, sticky and plastic; common very fine and few fine roots; few very fine and fine tubular pores; common thin silica films in pores and on some faces of peds; 20 percent weakly cemented durinodes; few fine distinct white (10YR 8/2) gypsum and soluble salt filaments; slightly effervescent; slightly alkaline; abrupt smooth boundary.

2Cq--46 to 61 inches; light gray (2.5Y 7/2) silty clay loam, grayish brown (2.5Y 5/2) moist; strong medium angular blocky structure; very hard, very firm, sticky and plastic; few very fine roots; common very fine and few fine tubular pores; 20 percent discontinuous weakly silica cemented lenses; few fine distinct white (10YR 8/2) gypsum crystals; common crustacean shells; slightly effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 2.5 miles south of the Winnemucca Municipal Airport; about 300 feet north and 100 feet west of the southeast corner of section 34, T. 35 N., R. 37 E.; (40 degrees, 51 minutes, 32 seconds north latitude and 117 degrees, 47 minutes, 38 seconds west longitude.)

Range in characteristics:

Soil moisture: Saturated within a depth of 24 to 35 inches during the winter through early summer of most years.

Soil temperature: 47 to 52 degrees F.

Depth to a Cqy horizon: 15 to 38 inches.

Salts: Slightly to strongly salt affected. Some pedons have salt crystals in the upper subhorizons.

Sodium: Less than 15 in half or more of the upper 20 inches.

Redoximorphic features: The low chroma matrix colors or redoximorphic depletions occur within 40 inches.

Other features: Unconformable lacustrine material when present is at 30 to 60 inches.

Control section:

Clay content--20 to 35 percent.

A horizon:

Value--6 or 7 dry, 4 through 6 moist.

Chroma--2 or 3.

Reaction--Neutral through very strongly alkaline.

Effervescence--Noneffervescent to strongly effervescent.

Czy horizon:

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 through 4.

Consistence--Soft or slightly hard dry, nonsticky or slightly sticky and nonplastic or slightly plastic wet.

Reaction--Slightly alkaline through strongly alkaline.

Salt--0.5 to 2 percent soluble salts.

Cy and Cqy horizons:

Hue--10YR, 7.5YR or 2.5Y.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Silt loam or silty clay loam.

Structure--Platy, blocky or is massive

Consistence--Slightly hard to very hard dry, very friable to very firm moist, slightly sticky or sticky and slightly plastic or plastic wet.

Reaction--Slightly alkaline through strongly alkaline.

Cq horizons:

Hue--10YR, 7.5YR or 2.5Y.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--1 through 4.

Texture--Silt loam or silty clay loam.

Structure--Platy, blocky or is massive

Consistence--Slightly hard to very hard dry.

Cementation--20 to 50 percent discontinuous weak silica cementation, few to many silica films in pores and on peds in a firm matrix, or 20 to 50 percent durinodes in a friable matrix. Subhorizons below 40 inches of some pedons may have a continuous brittle matrix.

Puett series

The Puett series consists of shallow, well drained soils formed in residuum and colluvium from weathered tuff and tuffaceous sandstone. Puett soils are on hills, rock pediments, and fan remnants. Slopes are 8 to 50 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Loamy, mixed (calcareous), mesic, shallow Xeric Torriorthents

Typical pedon: Puett gravelly loam, 15 to 50 percent slopes, in an area of map unit 1007. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light gray (10YR 7/2) gravelly loam, grayish brown (10YR 5/2) moist; moderate thin platy structure; soft, very friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine vesicular pores; violently effervescent; 15 percent pebbles; strongly alkaline; abrupt wavy boundary.

A2--2 to 5 inches; light gray (10YR 7/2) gravelly loam, brown (10YR 5/3) moist; moderate thin platy structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine vesicular pores; violently effervescent; 20 percent pebbles; strongly alkaline; abrupt wavy boundary.

C--5 to 10 inches; white (10YR 8/2) gravelly loam, brown (10YR 5/3) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and common fine and medium roots; many very fine and fine interstitial and tubular pores; violently effervescent; 30 percent pebbles; strongly alkaline; abrupt irregular boundary.

Cr--10 to 21 inches; weathered tuffaceous sedimentary rock.

Type location: Humboldt County, Nevada approximately 19 miles east of Paradise Valley; about 2,600 feet west and 1,400 feet north of the southeast corner of section 14, T. 41 N., R. 41 E.; (41 degrees, 25 minutes, 48 seconds north latitude and 117 degrees, 18 minutes, 53 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry June through October.

Soil temperature: 47 to 52 degrees F.

Depth to bedrock: 10 to 20 inches.

Reaction: Moderately alkaline or strongly alkaline.

Carbonates: Strongly effervescent or violently effervescent, throughout. Lime coats on pebbles in lower part of some pedons.

Control section:

Clay content--5 to 10 percent.

Rock fragments--Up to 35 percent pebbles.

A horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

C horizon:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Loamy fine sand to loam but is dominantly coarse sandy loam to loam.

Gravelly loam or gravelly sandy loam is common in some pedons.

Structure--Subangular blocky or it is massive.

Consistence--Nonsticky or slightly sticky and nonplastic or slightly plastic, wet.

Puffer series

The Puffer series consists of shallow and very shallow, well drained soils that formed in residuum from shale with some limestone, dolomite and sandstone. Puffer soils are on side slopes of mountains. Slopes are 30 to 75 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Loamy-skeletal, mixed (calcareous), mesic Lithic Xeric Torriorthents

Typical pedon: Puffer very cobbly loam, 50 to 75 percent slopes, in an area of map unit 954. (Colors are for a dry soil unless otherwise noted.) The soil surface is partially covered with 25 percent pebbles, 20 percent cobbles, and 2 percent stones.

A--0 to 2 inches; brown (10YR 5/3) very cobbly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure parting to moderate fine granular; soft, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine interstitial and few very fine vesicular pores; strongly effervescent; 35 percent pebbles, 20 percent cobbles and 2 percent stones; moderately alkaline; clear smooth boundary.

Bk1--2 to 4 inches; pale brown (10YR 6/3) very gravelly loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure parting to moderate fine granular; soft, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium and coarse roots; few very fine vesicular and tubular pores; few thin lime pendants on rock fragments; violently effervescent; 30 percent pebbles and 10 percent cobbles; strongly alkaline; abrupt wavy boundary.

Bk2--4 to 9 inches; pale brown (10YR 6/3) very gravelly loam, yellowish brown (10YR 5/4) moist; moderate very fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common fine and few very fine, medium and coarse roots; common very fine and fine tubular pores; few thin filaments of lime and few thin lime pendants on rock fragments; violently effervescent; 45 percent pebbles and 10 percent cobbles; strongly alkaline; abrupt irregular boundary.

R--9 inches; hard dolomite that is weathered and fractured in the top 2 inches; lime coating top of rock and extending into fractures.

Type location: Humboldt County, Nevada; approximately 6 miles south of Winnemucca; about 1,750 feet east and 200 feet south of the northwest corner of section 28, T. 35 N., R. 38 E.; (40 degrees, 53 minutes, 08 seconds north latitude and 117 degrees, 42 minutes, 40 seconds west longitude.)

Range in characteristics:

(Colors are for dry soil unless otherwise noted.)

Soil moisture: Usually dry, moist in winter and spring.

Soil temperature: 47 to 52 degrees F.

Depth to hard bedrock: 4 to 14 inches.

Reaction: Slightly alkaline through strongly alkaline.

Calcium carbonate equivalent: 5 to 15 percent.

Effervescence: Strongly effervescent or violently effervescent.

Control section:

Clay content--10 to 18 percent.

Rock fragments--45 to 75 percent, includes pebbles and (10 to 25 percent) cobbles.

A horizon:

Value--4 through 6 dry, 2 or 3 moist.

Chroma--1 through 3.

Bk horizons:

Hue--10YR or 7.5YR.

Value--4 through 6 dry, 3 through 5 moist.

Chroma--2 through 4.

Texture (less than 2 millimeter fraction)--Fine sandy loam, loam, or sandy loam.

Rock fragments--35 to 70 percent dominated by pebbles and cobbles.

Structure--Subangular blocky or is massive and some pedons are granular.

Consistence--Soft or slightly hard, dry; nonsticky or slightly sticky, wet.

Pumper series

The Pumper series consists of very deep, somewhat excessively drained soils that formed in loess high in volcanic ash superimposed over gravelly or extremely gravelly sandy alluvium or lacustrine materials from mixed rock sources. Pumper soils are on longshore bars and beach terraces. Slopes are 0 to 8 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Sandy-skeletal, mixed, mesic Typic Camborthids

Typical pedon: Pumper very fine sandy loam, 2 to 8 percent slopes in an area of map unit 338.

A--0 to 4 inches; light gray (2.5Y 7/2) very fine sandy loam, grayish brown (2.5Y 5/2) moist; weak thin platy structure; slightly hard, very friable, nonsticky and slightly plastic; common very fine roots; many very fine vesicular and interstitial pores; 3 percent pebbles; moderately alkaline; clear smooth boundary.

Bw--4 to 11 inches; light gray (2.5Y 7/2) very fine sandy loam, dark grayish brown (2.5Y 4/2) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; many very fine tubular pores; slightly effervescent in the lower part; strongly alkaline; abrupt wavy boundary.

2Bk--11 to 18 inches; white (10YR 8/2) very gravelly very fine sandy loam, pale brown (10YR 6/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; few very fine tubular and interstitial pores; common thin lime pendants and coats on pebbles; strongly effervescent; 50 percent pebbles; strongly alkaline; clear wavy boundary.

3C1--18 to 50 inches; very pale brown (10YR 7/3) extremely gravelly sand; brown (10YR 5/3) moist; single grain, loose, nonsticky and nonplastic; many very fine and common fine and few medium roots; many very fine, fine and medium interstitial pores; few thin lime pendants on rock fragments in the upper part; strongly effervescent; 80 percent pebbles and 2 percent cobbles; moderately alkaline; abrupt smooth boundary.

3C2--50 to 60 inches; very pale brown (10YR 7/3) stratified very gravelly sand to extremely gravelly sand, brown (10YR 5/3) moist; single grain; loose, nonsticky and nonplastic; few very fine roots; many very fine, fine and medium interstitial pores; few thin strata of sand violently effervescent; 50 percent pebbles; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 15 miles northwest of Winnemucca; about 900 feet east and 800 feet south of the northwest corner of section 36, T. 37 N., R. 36 E.; (41 degrees, 02 minutes, 41 seconds north latitude and 117 degrees, 53 minutes, 03 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry late May through November.

Soil temperature: 47 to 53 degrees F.

Control section:

Clay content--0 to 10 percent.

Rock fragments--50 to 80 percent, mainly pebbles.

A horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Reaction--Slightly alkaline through strongly alkaline.

Other features--Slightly effervescent in some pedons due to recharge from dust.

Bw horizon:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 3 or 4 moist (5 dry and 3 moist is due to dark colored sand grains).

Chroma--2 or 3.

Texture--Commonly loam, but includes very fine sandy loam, silt loam, fine sandy loam or sandy loam, with a clay content of 12 to 25 percent.

Structure--Weak medium or coarse subangular blocky or prismatic.

Consistence--Nonsticky or slightly sticky, wet.

Reaction--Slightly alkaline through strongly alkaline.

2Bk horizon:

Value--6 through 8 dry; 4 through 6 moist.

Chroma--2 or 3.

Texture--Very gravelly very fine sandy loam to extremely gravelly loam.

Clay content--8 to 15 percent.

Rock fragments--40 to 70 percent mainly pebbles.

Structure--Subangular blocky or is massive.

Consistence--Nonsticky or slightly sticky and nonplastic or slightly plastic when wet.

3C horizon:

Hue--10YR or 2.5Y.

Value--4 through 8 dry, 3 through 6 moist.

Chroma--1 through 3.

Texture--Is stratified and ranges from very gravelly sand to extremely gravelly coarse sand. Thin strata of sand or coarse sand are below 40 inches in some pedons.

Reaction--Moderately alkaline or strongly alkaline.

Carbonates--Very thin coatings on at least the underside of rock fragments, and few or common soft lime masses in some pedons.

Quomus series

The Quomus series consists of very deep, well drained soils that formed in loess and volcanic ash with minor amounts of colluvium from mixed rock sources. The Quomus soils are on mountains. Slopes are 8 to 50 percent. The mean annual precipitation is about 10 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Coarse-loamy, mixed, frigid Aridic Duric Haploxerolls

Typical pedon: Quomus very fine sandy loam, 15 to 50 percent slopes, in an area of map unit 594. (Colors are for dry soil unless otherwise noted.)

A1--0 to 4 inches; grayish brown (10YR 5/2) very fine sandy loam, very dark grayish brown (10YR 3/2) moist; moderate thin platy structure; soft, very friable, nonsticky and slightly plastic; many very fine and common fine roots; common very fine tubular and interstitial pores; 10 percent pebbles; neutral; abrupt wavy boundary.

A2--4 to 9 inches; brown (10YR 5/3) very fine sandy loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; soft, very friable, nonsticky and slightly plastic; common very fine and few fine roots; common very fine tubular and interstitial pores; 10 percent pebbles; slightly alkaline; clear smooth boundary.

A3--9 to 13 inches; brown (10YR 5/3) gravelly silt loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; soft, very friable, nonsticky and slightly plastic; common very fine and fine, few medium roots; many very fine interstitial and common very fine and fine tubular pores; 15 percent pebbles; slightly alkaline; clear smooth boundary.

Bw--13 to 24 inches; pale brown (10YR 6/3) gravelly silt loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; soft, very friable, nonsticky and slightly plastic; common very fine and fine, few medium roots; many very fine interstitial and common very

fine and fine tubular pores; 15 percent pebbles; slightly alkaline; clear wavy boundary.

Bq1--24 to 31 inches; pale brown (10YR 6/3) gravelly very fine sandy loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; soft, very friable, nonsticky and slightly plastic; common very fine and fine, few medium roots; many very fine interstitial and common very fine and fine tubular pores; 40 percent weakly silica-cemented durinodes; 15 percent pebbles; slightly alkaline; clear wavy boundary.

Bq2--31 to 54 inches; pale brown (10YR 6/3) gravelly very fine sandy loam, dark brown (10YR 3/3) moist; massive; slightly hard, firm and brittle, slightly sticky and slightly plastic; common very fine and fine, few medium roots; many very fine interstitial and common fine and very fine tubular pores; 20 percent durinodes; 20 percent pebbles; continuous brittle matrix; slightly alkaline; abrupt wavy boundary.

Bq3--54 to 61 inches; light yellowish brown (10YR 6/4) gravelly loam, brown (10YR 4/3) moist; massive; hard, firm and brittle, slightly sticky and slightly plastic; few fine and medium roots; common very fine tubular and interstitial pores; 25 percent pebbles; continuous brittle matrix; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 2.1 miles southwest of China Garden Spring in the Bloody Run Hills about 1,650 feet east and 2,450 feet north of the southwest corner of section 19, T. 38 N., R. 38 E.; (41 degrees, 09 minutes, 22 seconds north latitude and 117 degrees, 44 minutes, 52 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist winter and spring, usually dry late June to October.

Soil temperature: 44 to 47 degrees F.

Mollic epipedon thickness: 10 to 19 inches

Depth to secondary silica: 20 to 40 inches

Other features: Thin buried Bt horizons are below 26 inches in some pedons.

Control section:

Clay content--10 to 18 percent.

Rock fragments--5 to 25 percent, mainly pebbles.

A horizons:

Chroma--2 or 3

Bw horizon:

Value--3 or 4 moist.

Chroma--3 or 4

Texture--Silt loam, very fine sandy loam, gravelly silt loam or gravelly very fine sandy loam.

Clay content--10 to 18 percent

Rock fragments--5 to 25 percent

Consistence--Soft or slightly hard, dry.

Bq horizons:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--3 or 4

Texture--Gravelly very fine sandy loam, gravelly silt loam, gravelly loam, very fine sandy loam or silt loam.

Clay content--10 to 18 percent

Rock fragments--5 to 25 percent

Structure--Subangular blocky or is massive.

Reaction--Slightly alkaline or moderately alkaline.

Cementation--20 to 50 percent durinodes and continuous brittle matrix in some subhorizon.

Rad series

The Rad series consists of very deep, well drained soils that formed in loess over loamy alluvium from mixed rock sources. The Rad soils are on fan skirts. Slopes are 0 to 8 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Coarse-silty, mixed, mesic Durixerollic Camborthids

Typical pedon: Rad fine sandy loam, in an area of map unit 461. (Colors are for dry soil unless otherwise noted.)

Ap--0 to 6 inches; pale brown (10YR 6/3) fine sandy loam, dark grayish brown (10YR 4/2) moist; weak thin platy structure; soft, very friable, nonsticky and nonplastic; common very fine and few fine roots; many very fine interstitial pores; neutral; clear smooth boundary.

Bw1--6 to 14 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; weak coarse prismatic structure parting to weak thick platy; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots;

many very fine tubular pores; slightly alkaline; clear smooth boundary.

Bw2--14 to 20 inches; pale brown (10YR 6/3) very fine sandy loam, dark yellowish brown (10YR 4/4) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine and few fine roots; many very fine tubular and interstitial pores; strongly alkaline; clear wavy boundary.

Bqk1--20 to 34 inches; light gray (10YR 7/2) very fine sandy loam, brown (10YR 4/3) moist; massive; hard, friable, nonsticky and nonplastic; common very fine and few fine roots; many very fine and few fine tubular pores; 50 percent extremely hard, firm and brittle cylindrical durinodes; few thin silica films line pores and bridge sand grains; slightly effervescent in occasional spots in the durinodes; strongly effervescent matrix; strongly alkaline; clear smooth boundary.

Bqk2--34 to 39 inches; white (2.5Y 8/2) very fine sandy loam, brown (10YR 4/3) moist; massive; hard, firm and brittle, nonsticky and nonplastic; few very fine and fine roots; many very fine and few fine tubular pores; many thin very pale brown (10YR 7/3) silica films in pores and common thin silica bridges and randomly oriented, discontinuous laminae; common thin white (10YR 8/1) lime coatings on the laminar surfaces; violently effervescent; continuous brittle matrix; very strongly alkaline; clear wavy boundary.

2Bq--39 to 60 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine and fine roots; many very fine and few fine tubular pores; 10 percent hard, firm, brittle durinodes; slightly effervescent; very strongly alkaline.

Type location: Humboldt County, Nevada; approximately 1.5 miles east of Winnemucca; about 500 feet west and 1,600 feet south of the northeast corner of section 21, T. 36 N., R. 38 E.; (40 degrees, 59 minutes, 05 seconds north latitude and 117 degrees, 41 minutes, 51 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and

spring, dry from June through October.

Soil temperature: 47 to 53 degrees F.

Combined thickness of A and Bw horizons and depth to carbonates: 12 to 29 inches.

Depth to bedrock: 60 inches or more.

Depth to continuous brittle matrix: 30 to 38 inches.

Control section:

Clay content--5 to 10 percent.

Other features--Soil textures average less than 15 percent fine sand and coarser. Some pedons have a thin Bq horizon above the Bqk horizon.

Ap horizon:

Hue--10YR and 2.5Y.

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bw horizons:

Hue--10YR or 2.5Y.

Value--5 through 8 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Loam, very fine sandy loam or silt loam. Thin strata of clay loam, fine sandy loam or sandy loam are common in some pedons.

Structure--Medium or coarse platy, prismatic parting to platy, fine or medium subangular blocky or it is massive.

Reaction--Slightly alkaline through strongly alkaline.

Bq and Bqk horizons:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Loam, very fine sandy loam or silt loam.

Structure--Massive or weak or moderate, thin to thick platy.

Consistence--Very friable to very firm or brittle moist.

Reaction--Moderately alkaline to very strongly alkaline.

Effervescence--Slightly effervescent to violently effervescent.

Other features--These horizons have 10 to 50 percent durinodes with some subhorizons that has a continuous brittle matrix.

Raglan series

The Raglan series consists of very deep, well drained soils that formed in loamy mixed alluvium and lacustrine materials derived from mixed rock sources with a component of loess and volcanic ash. The Raglan soils are on fan skirts and lake terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine-loamy, mixed, mesic Duric Camborthids

Typical pedon: Raglan silt loam, in an area of map unit 471. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light brownish gray (10YR 6/2) silt loam, dark grayish brown (10YR 4/2) moist; moderate thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine vesicular and few fine tubular pores; slightly effervescent; strongly alkaline; abrupt smooth boundary.

A2--2 to 6 inches; light gray (10YR 7/2) silt loam, brown (10YR 5/3) moist; moderate thin platy structure; hard, friable, slightly sticky and slightly plastic; few very fine and fine roots between plates; common very fine vesicular and many very fine and fine interstitial pores; slightly effervescent; strongly alkaline; abrupt smooth boundary.

Bw--6 to 14 inches; very pale brown (10YR 7/3) silt loam, yellowish brown (10YR 5/4) moist; weak thick platy structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine, few medium roots; few very fine and fine tubular and many very fine and fine interstitial pores; few thin silica bridges between sand grains and in pores; strongly effervescent; strongly alkaline; clear smooth boundary.

Bqk--14 to 35 inches; light gray (2.5Y 7/2) silt loam, grayish brown (2.5Y 5/2) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; few very fine tubular and few very fine and fine interstitial pores; 70 percent hard durinodes; lime is disseminated; violently effervescent; strongly alkaline; clear smooth boundary.

2C--35 to 52 inches; light gray (2.5Y 7/2) silty clay loam, grayish brown (2.5Y 5/2) moist;

common medium and fine prominent strong brown (7.5YR 5/6) iron mottles; moderate medium platy structure; hard, firm, sticky and plastic; common very fine and few fine roots; few very fine tubular pores; common very fine interstitial pores; few fine distinct white (10YR 8/1) gypsum segregations; common crayfish shells; violently effervescent; strongly alkaline; abrupt smooth boundary.

3C--52 to 64 inches; light gray (2.5Y 7/2) very fine sandy loam, grayish brown (2.5Y 5/2) moist; common fine prominent strong brown (7.5YR 5/6) iron mottles; moderate medium platy structure; slightly hard, friable, nonsticky and slightly plastic; common very fine and few fine roots; common very fine tubular pores; few fine distinct white (10YR 8/1) gypsum segregations, slightly effervescent in spots; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 9 miles southwest of Winnemucca; about 2,100 feet west of the southeast corner of section 36, T. 35 N., R. 37 E.; (40 degrees, 51 minutes, 28 seconds north latitude and 117 degrees, 45 minutes, 46 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, intermittently moist in the winter and spring, dry late May through November.

Soil temperature: 47 to 52 degrees F.

Depth to Bqk horizon: 10 to 20 inches.

Reaction: Slightly alkaline through very strongly alkaline, usually increasing with depth.

Salt and sodium: The soils are normally free to slightly saline-sodic affected to a depth of 10 to 20 inches and slightly to strongly affected below. Moderate or strongly saline-sodic affected phases are recognized.

Other features: Mineralogy is mixed, but has a strong influence from volcanic ash.

Control section:

Clay content--18 to 25 percent.

Profile color--Hue--10YR through 5Y.

Value--6 or 7 dry; 4 or 5 moist.

Chroma--2 through 4.

A horizons:

Effervescence--Noneffervescent to strongly effervescent.

Bw horizon:

Structure--Fine to thick platy, prismatic or subangular blocky or is massive.
 Textures--Stratified, including loam, silt loam, very fine sandy loam, clay loam and silty clay loam; averages silt loam with 15 percent sand coarser than very fine sand.
 Effervescence--Noneffervescent to strongly effervescent.

Bqk horizon:

Durinodes--20 to 80 percent, up to 40 percent discontinuous weak silica cementation is common in any subhorizon where durinodes are present. Durinodes are hard or very hard dry, firm or very firm, moist and are brittle.
 Consistence--Matrix is soft to hard, dry, and very friable or friable moist.

2C and 3C horizons:

Hue--2.5Y or 5Y.
 Structure--Platy or horizon is massive.
 Effervescence--Slightly effervescent to violently effervescent. Lower subhorizons of some pedons are slightly effervescent in spots.
 Other features--Lacustrine material with hue of 2.5Y or 5Y and relict mottles with reddish-hue (7.5YR or 5YR) and high chroma (4 to 6) iron stains commonly occur below depths of 24 inches. Gypsum segregations and shells from various aquatic animals are in the lacustrine material in most pedons.

Rebel series

The Rebel series consists of very deep, well drained soils that formed in mixed alluvium. Rebel soils are on inset fans. Slopes are 0 to 2 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Coarse-loamy, mixed, mesic Xerollic Camborthids

Typical pedon: Rebel fine sandy loam in an area of map unit 487. (Colors are for dry soil unless otherwise noted.)

A--0 to 4 inches; light brownish gray (2.5Y 6/2) fine sandy loam, very dark grayish brown (2.5Y 3/2) moist; moderate thick platy structure; slightly hard, friable, nonsticky and nonplastic;

common fine and medium roots; few fine tubular and many fine and very fine vesicular pores; few mica flakes; neutral; abrupt smooth boundary.

Bw--4 to 18 inches; light brownish gray (2.5Y 6/2) fine sandy loam, dark grayish brown (2.5Y 4/2) moist; weak fine subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; common fine, medium and coarse roots; common fine and medium tubular pores; few mica flakes; neutral; clear smooth boundary.

Bk1--18 to 35 inches; grayish brown (2.5Y 5/2) fine sandy loam, very dark grayish brown (2.5Y 3/2) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common fine and medium roots; common fine and medium tubular pores; common mica flakes; lime is disseminated; slightly effervescent; 5 percent fine pebbles; slightly alkaline; clear smooth boundary.

Bk2--35 to 60 inches; grayish brown (2.5Y 5/2) fine sandy loam, very dark grayish brown (2.5Y 3/2) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common fine roots; common fine tubular pores; common mica flakes; lime is disseminated; strongly effervescent; 5 percent fine pebbles; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 2 miles west and 2.7 miles north of Orovada; about 3,500 feet north and 1,800 feet west of the southeast corner of section 9, T. 43 N., R. 37 E.; (41 degrees, 37 minutes, 23 seconds north latitude and 117 degrees, 48 minutes, 53 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry mid-June through October.

Soil temperature: 47 to 52 degrees F.

Combined thickness of A and Bw horizons: 15 to 24 inches.

Control section:

Clay content--10 to 18 percent.

Rock fragments--Averages 2 to 15 percent, mainly pebbles.

Sand content--50 to 80 percent.

Depth to lime--15 to 24 inches.

Other features--Mica flakes are common or many in a major part of the particle-size control section.

A horizon:

Value--5 or 6 dry, 3 or 4 moist.
 Reaction--Neutral or slightly alkaline.
 Other features--Slightly effervescent in some pedons due to recharge from calcareous dust.

Bw horizon:

Hue--10YR or 2.5Y.
 Value--6 or 7 dry, 4 or 5 moist.
 Chroma--2 or 3.
 Texture--Commonly fine sandy loam, but is sandy loam or loam in some pedons.
 Reaction--Neutral through moderately alkaline.

Bk horizons:

Hue--10YR or 2.5Y.
 Value--5 through 7 dry, 4 or 5 moist.
 Chroma--2 through 4.
 Texture--Fine sandy loam, sandy loam, or loam.
 Rock fragments--Some pedons contain thin strata with up to 50 percent pebbles.
 Carbonates--Slightly effervescent to violently effervescent.
 Reaction--Slightly alkaline through strongly alkaline.
 Other features--Subhorizons with coarse sandy loam are common in some pedons.

Relley series

The Relley series consists of very deep, well drained soils that formed in mixed silty alluvium from mostly volcanic rocks with a component of loess and volcanic ash. Relley soils are on inset fans. Slopes are 0 to 2 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Fine-silty, mixed, mesic Duric Camborthids

Typical pedon: Relley silt loam, 0 to 2 percent slopes, in an area of map unit 1120.

A--0 to 3 inches; light gray (10YR 7/2) silt loam, brown (10YR 4/3) moist; moderate thin and medium platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; many very fine and fine vesicular pores; moderately alkaline; abrupt wavy boundary.

Bw--3 to 11 inches; very pale brown (10YR 7/3) silt loam, dark yellowish brown (10YR 4/4) moist; strong thin platy structure; slightly hard, very friable, sticky and plastic; many very fine, common fine and few medium roots; common very fine tubular and many very fine vesicular pores; moderately alkaline; clear smooth boundary.

Bq--11 to 25 inches; very pale brown (10YR 7/3) silt loam, yellowish brown (10YR 5/4) moist; weak medium platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; many very fine tubular pores; 25 percent brittle durinodes; moderately alkaline; clear wavy boundary.

Bqk--25 to 36 inches; light yellowish brown (10YR 6/4) silt loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, friable, sticky and plastic; common very fine and fine roots; common very fine tubular pores; common silt coats lining pores and coating faces of peds; 15 percent weak durinodes; common fine soft filaments of lime; strongly effervescent; moderately alkaline; clear wavy boundary.

Bk1--36 to 43 inches; very pale brown (10YR 7/4) silt loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, friable, sticky and slightly plastic; common very fine and fine roots; common very fine tubular and interstitial pores; few fine soft masses of lime; strongly effervescent; moderately alkaline; abrupt wavy boundary.

Bk2--43 to 60 inches; very pale brown (10YR 7/3) very fine sandy loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; many very fine interstitial pores; many soft filaments of lime; strongly effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 1 mile southwest of Nadine Butte in an unsectionized area of T. 46 N., R. 43 E.; (41 degrees, 54 minutes, 09 seconds north latitude and 117 degrees, 04 minutes, 19 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry late May through November.

Soil temperature: 47 to 53 degrees F.

Depth to duric horizon: 11 to 25 inches.

Depth to carbonates: 11 to 25 inches

Relict mottles: Faint or distinct relict mottles are common in any horizon below 16 inches.

Salt and sodium: These soils are normally moderately or strongly salt and sodium affected at depths below 30 inches.

Volcanic ash: A layer of volcanic ash 4 to 8 inches thick is common at some depth between 16 to 45 inches.

Other features: Some pedons have coarse sandy loam textures below depths of 50 inches.

Control section:

Clay content--18 to 27 percent.

A horizon:

Hue--2.5Y or 10YR

Value--6 or 7 dry, 3 or 4 moist.

Chroma--2 or 3

Reaction--Moderately alkaline or strongly alkaline.

Bw horizon:

Value--6 or 7 dry, 3 or 4 moist.

Chroma--2 through 4 dry.

Structure--Prismatic or platy

Consistence--Slightly hard or hard, very friable or friable; slightly sticky or sticky and slightly plastic or plastic, wet.

Reaction--Moderately alkaline or strongly alkaline.

Bq, Bk, and Bqk horizons:

Value--5 through 8 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Silt loam with strata of very fine sandy loam or silty clay loam in some pedons.

Structure--Platy or it is massive.

Consistence--Slightly sticky or sticky and slightly plastic or plastic, wet.

Reaction--Moderately alkaline to very strongly alkaline.

Carbonates--Strongly effervescent to violently effervescent, noneffervescent Bq horizons occur overlying Bqk horizons in some pedons.

Silica cementation--20 to 50 percent weak or strongly cemented durinodes. A 4 to 7-inch thick horizon that is 30 to 50 percent discontinuous weakly silica-cemented that is hard and brittle is common between depths of 16 to 34 inches.

Other features--A continuous weakly or strongly cemented hardpan is below 50 inches in some pedons.

Reluctan series

The Reluctan series consists of moderately deep, well drained soils that formed in residuum and colluvium from volcanic rocks. Reluctan soils are on plateaus and mountains. Slopes are 2 to 50 percent. Mean annual precipitation is about 12 inches, and the mean annual temperature is about 44 degrees F.

Taxonomic class: Fine-loamy, mixed, frigid Aridic Argixerolls

Typical pedon: Reluctan sandy loam, 15 to 50 percent slopes, in an area of map unit 921. (Colors are for dry soils unless otherwise noted.) The soil surface is partially covered with 5 percent pebbles and 5 percent cobbles.

A1--0 to 3 inches; grayish brown (10YR 5/2) sandy loam, very dark grayish brown (10YR 3/2) moist; strong very thin platy structure; soft, very friable, slightly sticky and slightly plastic; many very fine roots; common very fine tubular and interstitial pores; 5 percent pebbles and 5 percent cobbles; neutral; clear smooth boundary.

A2--3 to 9 inches; grayish brown (10YR 5/2) cobbly loam, very dark grayish brown (10YR 3/2) moist; moderate very thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine and medium roots; common very fine vesicular and few very fine tubular pores; 5 percent pebbles and 10 percent cobbles; neutral; clear smooth boundary.

Bt1--9 to 14 inches; dark grayish brown (10YR 4/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few fine and medium roots; common very fine tubular pores; few thin clay films lining pores and on faces of peds; 15 percent pebbles; neutral; clear smooth boundary.

Bt2--14 to 38 inches; yellowish brown (10YR 5/4) gravelly clay loam, dark yellowish brown (10YR 4/4) moist; strong fine and medium subangular blocky structure; hard, firm, sticky and plastic; few very fine, medium and coarse roots; few very fine tubular pores; many thin clay films lining pores and on faces of peds; 20 percent pebbles; neutral; abrupt smooth boundary.

R--38 inches; hard fractured bedrock.

Type location: Humboldt County, Nevada; in the Sonoma Mountains; about 1,400 feet north and 1,900 feet west of the southeast corner, section 4, T. 35 N., R. 39 E.; (40 degrees, 56 minutes, 03 seconds north latitude and 117 degrees, 35 minutes, 24 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry from July to October.

Soil temperature: 44 to 47 degrees F.

Mollic epipedon thickness: 7 to 17 inches.

Commonly includes part of argillic horizon.

Solum thickness: 20 to 40 inches.

Depth to bedrock: 20 to 40 inches.

A horizons:

Value--4 or 5 dry.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bt horizons:

Value--4 through 6 dry, 3 through 5 moist.

Chroma--2 through 4.

Texture--Gravelly loam or gravelly clay loam.

Clay content--25 to 35 percent.

Rock fragments--15 to 35 percent, mainly pebbles.

Consistence--Very friable to firm, moist; slightly sticky or sticky and slightly plastic or plastic, wet.

Reaction--Neutral or slightly alkaline, usually increasing with depth.

Rio King series

The Rio King series consists of very deep, moderately well drained soils that formed in alluvium from mixed rocks, loess and volcanic ash. The Rio King soils are on stream terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 10 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Coarse-loamy, mixed, mesic Aridic Haploxerolls

Typical pedon: Rio King loam, in an area of map unit 790. (Colors are for dry soil unless otherwise noted.)

Ap--0 to 5 inches; grayish brown (10YR 5/2) loam, very dark brown (10YR 2/2) moist; moderate thick platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and fine and few medium roots; many very fine and fine interstitial pores; numerous worm casts; neutral; abrupt smooth boundary.

A1--5 to 12 inches; grayish brown (10YR 5/2) loam, very dark grayish brown (10YR 3/2) moist; massive; slightly hard, very friable, sticky and plastic; many very fine and fine, and few medium roots; many very fine tubular pores; numerous worm casts; neutral; abrupt wavy boundary.

A2--12 to 20 inches; grayish brown (10YR 5/2) loam, very dark grayish brown (10YR 3/2) moist; massive; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine and medium roots; few very fine and fine tubular and interstitial pores; common worm casts; neutral; abrupt wavy boundary.

Bw--20 to 28 inches; light brownish gray (10YR 6/2) loam, very dark grayish brown (10YR 3/2) moist; weak coarse subangular blocky structure; hard, friable, slightly sticky and slightly plastic; many very fine and few medium roots; few very fine and fine tubular and common very fine interstitial pores; neutral; clear smooth boundary.

C1--28 to 38 inches; light brownish gray (10YR 6/2) loam, very dark grayish brown (10YR 3/2) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few fine roots; few very fine and fine tubular and few very fine interstitial pores; neutral; clear smooth boundary.

C2--38 to 49 inches; pale brown (10YR 6/3) loam, dark brown (10YR 3/3) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; few fine roots; few very fine and fine tubular, and common very fine interstitial pores; neutral; clear smooth boundary.

C3--49 to 66 inches; pale brown (10YR 6/3) stratified sandy loam to loam, dark brown (10YR 3/3) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine and fine roots; common very fine interstitial pores; neutral; abrupt smooth boundary.

C4--66 to 69 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 4/3) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine roots; few fine and very fine

interstitial pores; neutral; clear smooth boundary.

C5--69 to 71 inches; pale brown (10YR 6/3) silt loam, dark brown (10YR 3/3) moist, few very fine prominent dark brown (7.5YR 4/4) mottles; massive; soft, very friable, nonsticky and nonplastic; few very fine roots; few very fine and fine interstitial pores; neutral.

Type location: Humboldt County, Nevada; approximately 6 miles northwest of the Rio King Ranch headquarters; about 3,900 feet east and 100 feet south of the northwest corner of section 27, T. 46 N., R. 33 E.; (41 degrees, 50 minutes, 47 seconds north latitude and 118 degrees, 15 minutes, 01 second west longitude.)

Range in characteristics:

Soil moisture: Moist in some part late October to mid June; dry summer and early fall months.

Soil temperature: 47 to 53 degrees

Mollic epipedon thickness: 10 to 20 inches.

Control section:

Clay content--8 to 18 percent.

Rock fragments--0 to 10 percent, mainly fine pebbles.

A horizons:

Value--5 dry, 2 or 3 moist.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline; saline phases are moderately alkaline or strongly alkaline.

Bw horizon:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3

Structure--Subangular blocky or is massive.

Consistence--Slightly hard or hard, dry, very friable or friable, moist; nonsticky or slightly sticky wet.

Reaction--Neutral or slightly alkaline; saline phases are moderately alkaline to very strongly alkaline.

C horizon:

Hue--10YR or 7.5YR.

Values--5 through 7 dry, 3 or 4 moist.

Chroma--2 or 3.

Structure--Subangular blocky or is massive.

Texture--Stratified coarse sandy loam to silt

loam

Consistence--Slightly hard or hard, dry; very friable or friable, moist.

Reaction--Neutral or slightly alkaline; saline phases are strongly alkaline or very strongly alkaline.

Other features--Thin layers, less than 6 inches thick, with weak silica cementation are in some pedons.

Roca series

The Roca series consists of moderately deep, well drained soils that formed in residuum and colluvium from rhyolite, andesite, quartzite, shale and chert. Roca soils are on mountains. Slopes range from 15 to 75 percent. The mean annual precipitation is about 11 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, frigid Xerollic Haplargids

Typical pedon: Roca very cobbly loam, 50 to 75 percent slopes, in an area of map unit 900. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 10 percent pebbles, 35 percent cobbles, and 2 percent stones.

A--0 to 6 inches; pale brown (10YR 6/3) very cobbly loam, brown (10YR 4/3) moist; moderate thin platy structure; soft, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine and fine vesicular pores; 10 percent pebbles, 35 percent cobbles and 2 percent stones; neutral; clear smooth boundary.

BA--6 to 15 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 plastic; few very fine and fine roots; few fine and very fine tubular pores; 25 percent pebbles and 2 percent cobbles; neutral; clear smooth boundary.

Bt1--15 to 24 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, yellowish brown (10YR 5/4) moist; moderate medium angular blocky structure; slightly hard, friable, sticky and plastic; few very fine, fine, medium and coarse roots; common very fine and few fine tubular pores; few thin clay films on faces of

pedes and lining pores; 40 percent pebbles; neutral; clear smooth boundary.

Bt2--24 to 37 inches; light yellowish brown (10YR 6/4) very gravelly clay, yellowish brown (10YR 5/4) moist; moderate medium angular blocky structure; hard, friable, sticky and plastic; few very fine roots; common very fine and few fine tubular pores; common moderately thick clay films lining pores and on faces of pedes; 35 percent pebbles and 5 percent cobbles; slightly alkaline; abrupt wavy boundary.

R--37 inches; hard shale bedrock.

Type location: Humboldt County, Nevada; near North Peak, approximately 900 feet east and 2,000 feet south of the northwest corner, section 12, T. 32 N., R. 43 E.; (40 degrees, 39 minutes, 46 seconds north latitude and 117 degrees, 05 minutes, 16 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist winter and spring, dry late June through early October.

Soil temperature: 43 to 47 degrees F.

Depth to bedrock: 20 to 40 inches.

A horizon:

Hue--10YR or 2.5Y.

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3.

Reaction--Slightly acid through slightly alkaline.

Bt horizons:

Hue--10YR or 7.5YR; 2.5Y is common in lower subhorizons of some pedons.

Value--5 through 7 dry, 3 through 7 moist.

Chroma--3 through 6.

Texture--Very gravelly clay, very gravelly clay loam, or very cobbly clay

Clay content--35 to 50 percent.

Rock fragments--35 to 50 percent

Structure--Moderate or strong, medium or fine angular blocky or subangular blocky.

Consistence--Slightly hard to very hard, dry; very friable to firm, moist; sticky or very sticky and plastic or very plastic, wet.

Reaction--Neutral through moderately alkaline, usually increasing with depth.

Other features--Some pedons have secondary carbonates and are violently effervescent in the lower subhorizons above bedrock.

Rocconda series

The Rocconda series consists of very shallow and shallow, well drained soils that formed in residuum and colluvium from shale, rhyolite, siltstone and phyllite. The Rocconda soils are on mountains, hills and plateaus. Slopes are 8 to 50 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 50 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, mesic Lithic Xerollic Haplrgids

Typical pedon: Rocconda very channery loam, 15 to 50 percent slopes, in an area of map unit 1180. (Colors are for dry soil unless otherwise noted.) The surface is partially covered with 55 percent channers and 1 percent flagstones.

A--0 to 1 inch; light gray (2.5Y 7/2) very channery loam, olive brown (2.5Y 4/4) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine through coarse vesicular pores; 55 percent channers and 1 percent flagstones; moderately alkaline; abrupt wavy boundary.

Bt--1 to 5 inches; light gray (2.5Y 7/2) very channery clay, light olive brown (2.5Y 5/4) moist; moderate fine subangular blocky structure parting to strong fine granular; slightly hard, friable, sticky and plastic; common very fine and fine roots; many very fine through medium tubular and interstitial pores; common thin clay films lining pores; slightly effervescent; 50 percent channers; moderately alkaline; abrupt wavy boundary.

R--5 inches; up to 15 inches is flagstone size fractured siltstone; roots extend into vertical fractures; common thin lime coats and few thin silica coats on vertical and tilted fracture planes.

Type location: Humboldt County, Nevada; in the Edna Mountains south of Emigrant Canyon near Golconda, about 2,500 feet west and 2,200 feet south of the northeast corner of section 31, T. 36 N., R. 41 E.; (40 degrees, 57 minutes, 13 seconds north latitude and 117 degrees, 23 minutes, 58 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist December through May and dry June through November.

Soil temperature: 47 to 52 degrees F.

Depth to bedrock: 4 to 14 inches.

Control section:

Clay content--35 to 45 percent.

Texture--Averages clay loam or clay.

Rock fragments--35 to 70 percent, mainly channers or angular pebbles.

Profile reaction: Slightly alkaline or moderately alkaline.

A horizon:

Hue--2.5Y or 10YR.

Value--6 or 7 dry, 3 through 5 moist.

Chroma--2 through 4.

Other features--Effervescent in some pedons.

Bt horizons:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 4 or 5 moist.

Texture--Very channery, very gravelly, extremely gravelly or extremely channery clay loam or clay.

Clay content--35 to 50 percent.

Rock fragments--35 to 70 percent, mainly channers or angular pebbles.

Structure--Subangular blocky or granular.

Consistence--Slightly hard or hard, dry.

Effervescence--Slightly effervescent to violently effervescent.

Other features--Some pedons have lithochromic colors that reflect the color of the parent rock.

Rodock series

The Rodock series consists of very deep, well drained soils that formed in alluvium from mixed rock sources with additions of loess and volcanic ash. Rodock soils are on inset fans, fan aprons and stream terraces. Slopes are 0 to 8 percent. The mean annual precipitation is about 10 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Loamy-skeletal, mixed, mesic
Aridic Duric Haploxerolls

Typical pedon: Rodock gravelly sandy loam, 2 to 8

percent slopes, in an area of map unit 1431.
(Colors are for dry soil unless otherwise noted.)

A--0 to 2 inches; brown (10YR 5/3) gravelly sandy loam, very dark grayish brown (10YR 3/2) moist; moderate thin platy structure; soft, very friable, nonsticky and nonplastic; common very fine and few fine roots; many very fine, fine and medium vesicular pores; 15 percent pebbles; neutral; abrupt smooth boundary.

Bw1--2 to 11 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure parting to moderate fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine and fine interstitial pores; 10 percent pebbles; neutral; abrupt smooth boundary.

Bw2--11 to 15 inches; brown (10YR 5/3) loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine, fine and medium roots; many very fine and fine interstitial pores; slightly alkaline; clear wavy boundary.

Bw3--15 to 20 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine to coarse roots; common very fine and fine tubular pores; few thin silica coats on faces of peds in the lower part; 20 percent pebbles; slightly alkaline; clear wavy boundary.

Bq--20 to 27 inches; pale brown (10YR 6/3) gravelly sandy loam, dark brown (10YR 3/3) moist; massive; very hard, firm and brittle, nonsticky and slightly plastic; few very fine roots; common very fine and fine tubular pores; 50 percent strongly cemented durinodes and irregular masses; 30 percent pebbles; continuous brittle matrix; slightly alkaline; clear wavy boundary.

2Bqk1--27 to 31 inches; pale brown (10YR 6/3) very gravelly loamy coarse sand, dark brown (10YR 3/3) moist; massive; hard, firm and brittle, nonsticky and nonplastic; few very fine and fine roots; common very fine and fine tubular and interstitial pores; 25 percent strongly cemented durinodes and masses; few thin lime and silica pendants on rock fragments; few fine soft filaments of lime; 50 percent pebbles and 2 percent cobbles; continuous

brittle matrix; moderately alkaline; clear wavy boundary.

2Bqk2--31 to 60 inches; pale brown (10YR 6/3) extremely gravelly coarse sand, very dark grayish brown (10YR 3/2) moist; massive; soft, very friable, nonsticky and nonplastic; common fine and medium roots; many very fine and fine interstitial pores; many thin lime and silica pendants on rock fragments; strongly effervescent; 55 percent pebbles, 15 percent cobbles; strongly alkaline.

Type location: Humboldt County, Nevada; approximately one mile northwest of the Kings River Ranch headquarters; about 300 feet north and 2,500 feet east of the southwest corner of section 16, T. 46 N., R 33 E.; (41 degrees, 51 minutes, 45 seconds north latitude and 118 degrees, 16 minutes, 32 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, October to late June. Dry from mid July to mid October

Soil temperature: 47 to 52 degrees F.

Mollic epipedon: 10 to 19 inches thick.

Depth to continuous brittle matrix: 20 to 30 inches.

Depth to secondary carbonates: 20 to 40 inches.

Control section:

Clay content--Averages 10 to 18 percent.

Rock fragments--Averages 35 to 60 percent, mainly pebbles.

A horizon:

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bw horizons:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3.

Texture--Loam, very fine sandy loam or fine sandy loam.

Clay content--15 to 25 percent.

Rock fragment--0 to 30 percent, mainly pebbles.

Reaction--Neutral through moderately alkaline.

Bq and Bqk horizons:

Value--5 through 7 dry, 3 or 4 moist.

Chroma--2 through 4.

Texture--Stratified; the upper part is loam to gravelly sandy loam and the lower part is very gravelly loam to extremely gravelly coarse sand.

Reaction--Slightly alkaline to strongly alkaline.

Consistence--Subhorizons have continuous brittle matrix; strongly cemented durinodes and coarse masses or pendants are in most pedons.

Rose Creek series

The Rose Creek series consists of very deep, poorly drained soils that formed in stratified mixed alluvium. Rose Creek soils are on natural levees, floodplains, and streams terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Coarse-loamy, mixed, (calcareous) mesic Fluvaquentic Endoaquolls

Typical pedon: Rose Creek loam, in an area of map unit 490. (Colors are for dry soils unless otherwise noted.)

A1--0 to 1 inch; gray (10YR 5/1) loam, very dark gray (10YR 3/1) moist; moderate thick platy structure; hard, friable, slightly sticky and slightly plastic; few fine and very fine roots; few very fine and fine tubular and vesicular pores; slightly effervescent; moderately alkaline; abrupt smooth boundary.

A2--1 to 10 inches; gray (10YR 5/1) loam, very dark gray (10YR 3/1) moist; moderate medium subangular blocky structure; hard, friable, slightly sticky and slightly plastic; many fine, medium and coarse roots; many fine, medium and coarse tubular pores; many fine cracks between peds; slightly effervescent; moderately alkaline; clear smooth boundary.

C1--10 to 22 inches; light brownish gray (10YR 6/2) finely stratified loam to fine sandy loam, dark gray (10YR 4/1) moist; few fine distinct yellowish brown (10YR 5/4) mottles lining pores; massive; hard, friable, nonsticky and slightly plastic; many fine and medium roots; many fine and medium tubular pores; slightly effervescent; moderately alkaline; abrupt

smooth boundary.

C2--22 to 34 inches; light brownish gray (10YR 6/2) micaceous sandy loam, dark grayish brown (10YR 4/2) moist; few faint dark gray (10YR 4/1) moist mottles; massive; slightly hard, very friable, nonsticky and nonplastic; many fine and medium roots; many very fine and medium tubular pores; slightly effervescent; moderately alkaline; abrupt smooth boundary.

2C3--34 to 43 inches; light brownish gray (10YR 6/2) micaceous sand, dark grayish brown (10YR 4/2) moist; common fine, distinct dark yellowish brown (10YR 4/4) moist mottles; single grain; loose, nonsticky and nonplastic; common fine and medium roots; many very fine and fine interstitial pores; slightly effervescent; 5 percent pebbles; moderately alkaline; abrupt smooth boundary.

3C4--43 to 60 inches; light gray (10YR 7/1) finely stratified silt loam and very fine sandy loam, dark grayish brown (2.5Y 4/2) moist; massive; hard, friable, slightly sticky and slightly plastic; few fine and medium roots; few fine and medium tubular pores; strongly effervescent; 5 percent pebbles; moderately alkaline.

Type location: Humboldt County, Nevada; about 2 miles north of Winnemucca; approximately 800 feet south and 1,800 feet west of the northeast corner, section 17, T. 36 N., R. 38 E.; (41 degrees, 00 minutes, 03 seconds north latitude and 117 degrees, 43 minutes, 18 seconds west longitude.)

Range in characteristics:

Soil moisture: Dry in mid-summer and early fall, moist in late fall, winter, spring and early summer. Saturated to within a depth of 10 inches of the surface for short periods during most years. Apparent seasonal water table is between 20 and 36 inches during the spring. Drained phases are recognized.

Soil temperature: 47 to 52 degrees F.

Mollic epipedon thickness: 10 to 18 inches.

Control section:

Clay content--8 to 18 percent, when averaged.
Effervescence--The soil is calcareous in all parts between 10 and 20 inches. Subhorizons below this depth range from noneffervescent to violently effervescent.

Reaction--Neutral to very strongly alkaline, depending on the presence of sodium and lime.

A horizons:

Hue--10YR or 2.5Y.

Value--4 or 5 dry, 2 or 3 moist, the surface 1 to 3 inches in some pedons has value of 7 dry and 4 moist as a result of flood deposition.

Chroma--1 or 2.

C horizons:

Hue--10YR through 5Y.

Value--5 through 7 dry and 3 through 6 moist.

Chroma--1 through 3.

Texture--Is stratified and averages sandy loam, fine sandy loam, very fine sandy loam, or loam with more than 15 percent fine sand and coarser particles. Includes stratified sand to silt loam and may include strata of coarse sand or silty clay loam.

Mottles--Iron mottles with hues of 2.5YR through 10YR and chroma of 3 through 8 are usually at a depth of 20 to 40 inches, but are as shallow as 3 inches in some pedons that are irrigated by controlled flooding.

Consistence--Loose through hard, dry; loose or very friable or friable, moist.

Say series

The Say series consists of moderately deep, well drained soils that formed in residuum from granite. Say soils are on mountains. Slopes are 15 to 75 percent. The mean annual precipitation is about 13 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Fine-loamy, mixed, frigid Aridic Argixerolls

Typical pedon: Say stony loam, 15 to 30 percent slopes, in an area of map unit 1151. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 10 percent pebbles, 5 percent cobbles, and 2 percent stones.

A1--0 to 3 inches; brown (10YR 4/3) stony loam, very dark grayish brown (10YR 3/2) moist; moderate very thin platy structure; soft, very friable, nonsticky and nonplastic; many very fine roots; many very fine and few fine vesicular pores; 10 percent pebbles, 5 percent cobbles, and 2 percent stones; neutral; clear smooth boundary.

A2--3 to 9 inches; brown (10YR 4/3) sandy loam, very dark grayish brown (10YR 3/2) moist; moderate very thin platy structure; slightly hard, very friable, nonsticky and nonplastic; many very fine roots; few very fine tubular pores; 5 percent pebbles and 2 percent stones; slightly alkaline; clear smooth boundary.

Bt1--9 to 15 inches; yellowish brown (10YR 5/4) gravelly sandy clay loam; dark yellowish brown (10YR 3/4) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine, fine, and coarse roots; common very fine tubular pores; few thin clay films on faces of peds and lining pores; 10 percent pebbles and 5 percent cobbles; slightly alkaline; clear smooth boundary.

Bt2--15 to 24 inches; yellowish brown (10YR 5/4) gravelly sandy clay loam, dark yellowish brown (10YR 3/4) moist; weak fine and medium subangular blocky structure; hard, friable, slightly sticky and slightly plastic; few very fine and medium roots; few very fine and fine tubular pores; few thin clay films on faces of peds and lining pores; 15 percent pebbles and 5 percent cobbles; slightly alkaline; clear smooth boundary.

C--24 to 34 inches; light yellowish brown (10YR 6/4) gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine roots; common very fine interstitial and few fine tubular pores; 25 percent pebbles and 5 percent cobbles; slightly alkaline; gradual smooth boundary.

Cr--34 inches; weathered granite bedrock.

Type location: Humboldt County, Nevada; about 1,900 feet north and 200 feet west of the southeast corner, section 22, T. 33 N., R. 39 E.; (40 degrees, 43 minutes, 07 seconds north latitude and 117 degrees, 34 minutes, 03 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry from July through October.

Soil temperature: 43 to 47 degrees F.

Mollic epipedon thickness: 7 to 12 inches.

Solum thickness: 19 to 32 inches.

Depth to paralithic contact: 20 to 40 inches.

Reaction: Neutral or slightly alkaline.

Other features: The profile is noncalcareous throughout. Most pedons have a thin BA horizon.

Control section:

Clay content--18 to 25 percent.

Rock fragments--15 to 35 percent.

A horizons:

Value--4 or 5 dry.

Chroma--2 or 3.

Bt horizons:

Value--5 or 6 dry, 3 or 4 moist.

Texture--Gravelly loam, gravelly sandy clay loam, cobbly loam, or cobbly sandy clay loam; with more than 45 percent sand.

Structure--Subangular blocky or horizon is massive.

Consistence--Slightly hard or hard, dry.

Reaction--Neutral or slightly alkaline.

C horizon:

Value--5 or 6 dry, 3 or 4 moist.

Texture--Gravelly sandy loam, gravelly loamy sand, very gravelly sandy loam, very gravelly loamy sand.

Clay content--4 to 15 percent.

Rock fragments--20 to 50, dominantly pebbles.

Consistence--Slightly hard or loose.

Other features--This horizon is discontinuous in some pedons.

Shabliss series

The Shabliss series consists of shallow to a duripan, well drained soils that formed in alluvium from mixed rock sources with a thin loess mantle high in volcanic ash. The Shabliss soils are on fan remnants. Slopes are 0 to 30 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow Haploxerollic Durorthids

Typical pedon: Shabliss very fine sandy loam, 2 to 15 percent slopes, in an area of map unit 530. (Colors are for dry soil unless otherwise noted.)

A--0 to 4 inches; light brownish gray (10YR 6/2) very fine sandy loam, dark grayish brown (10YR 4/2) moist; weak thin platy structure; soft, very

friable, nonsticky and nonplastic; many very fine and fine roots; many very fine interstitial pores; moderately alkaline; clear wavy boundary.

- Bw**--4 to 11 inches; light brownish gray (10YR 6/2) very fine sandy loam, dark grayish brown (10YR 4/2); moist; weak very fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine interstitial pores; strongly alkaline; abrupt wavy boundary.
- Bq**--11 to 15 inches; pale brown (10YR 6/3) very fine sandy loam, brown (10YR 4/3) moist; strong medium subangular blocky structure; hard, friable, nonsticky and nonplastic; common very fine roots; few very fine interstitial and tubular pores; 30 percent very hard, very firm, brittle, 3/8 to 1 inch diameter durinodes; strongly alkaline; clear wavy boundary.
- Bqkm**--15 to 20 inches; very pale brown (10YR 7/3) strongly cemented duripan, brown (10YR 5/3) moist; strong medium platy structure; extremely hard, slightly rigid; few very fine roots; few very fine and fine interstitial pores; many fine distinct white (10YR 8/2) lime laminae; many thin discontinuous silica laminae with some iron mottling on the surface; strongly effervescent; strongly alkaline; clear wavy boundary.
- Bqk**--20 to 29 inches; very pale brown (10YR 7/3) very fine sandy loam, brown (10YR 5/3) moist; massive; very hard, firm, and brittle, nonsticky and nonplastic; few very fine roots; few very fine interstitial and tubular pores; 30 percent extremely hard, very firm, brittle, 1/5 to 1/4 inch diameter durinodes; many fine distinct white (10YR 8/2) lime masses; violently effervescent; continuous brittle matrix; strongly alkaline; abrupt wavy boundary.
- 2Bk**--29 to 52 inches; very pale brown (10YR 7/3) fine sandy loam, brown (10YR 5/3) moist; massive; soft, friable, nonsticky and nonplastic; few fine roots; many very fine interstitial pores; lime is disseminated; violently effervescent; strongly alkaline; abrupt wavy boundary.
- 3Bqk**--52 to 56 inches; very pale brown (10YR 7/3) loamy sand, brown (10YR 5/3) moist; massive; hard, firm, and brittle, nonsticky and nonplastic; few very fine interstitial and tubular pores; lime is disseminated; violently effervescent; continuous brittle matrix; very strongly alkaline; abrupt wavy boundary.
- 4C**--56 to 62 inches; very pale brown (10YR 7/3) gravelly loamy sand, brown (10YR 5/3) moist;

massive; slightly hard, friable, nonsticky and nonplastic; few very fine interstitial pores; 20 percent pebbles; very strongly alkaline.

Type location: Humboldt County, Nevada; approximately 2 miles southeast of Winnemucca, about 1,600 feet south and 400 feet west of the northeast corner of section 34, T. 36 N., R. 38 E.; (40 degrees, 57 minutes, 20 seconds north latitude and 117 degrees, 40 minutes, 42 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist during winter and spring, dry summer through fall.

Soil temperature: 47 to 55 degrees F.

Depth to base of Bw horizon: 10 to 15 inches.

Depth to strongly cemented duripan: 10 to 20 inches.

Depth to bedrock: 60 inches or more.

Control section:

Clay content--5 to 15 percent.

Rock fragments--Averages 0 to 25 percent.

A horizon:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3.

Reaction--Neutral through moderately alkaline.

Other features--Some pedons have few fine soft pockets and films of lime and are violently effervescent.

Bw horizons:

Value--5 or 6 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Very fine sandy loam, silt loam or loam with thin subhorizons with fine sandy loam in some pedons.

Consistence--Soft to slightly hard, very friable to friable, nonsticky to slightly sticky and nonplastic to slightly plastic.

Reaction--Neutral through strongly alkaline.

Other features--Some pedons have few fine soft films of lime that are effervescent in pockets.

Bq horizons:

Cementation--5 to 45 percent durinodes in a friable or brittle matrix.

Texture--Very fine sandy loam, loam or silt loam, with fine sandy loam layers in some pedons.

Structure--Subangular blocky or massive.

Consistence--Slightly hard or hard dry; very friable or friable moist.

Bqkm horizons:

Structure--Platy or massive.

Consistence--Very hard or extremely hard.

Other features--In some pedons, 2 or more strongly cemented layers are interbedded with weakly cemented material.

Other features--Strongly effervescent to violently effervescent.

Bqk, Bk, or C horizons:

Clay content--0 to 10 percent.

Rock fragments--Some pedons are gravelly or very gravelly below the duripan.

Reaction--Moderately alkaline to very strongly alkaline.

Cementation--The Bqk (when present below the duripan) horizons have 5 to 45 percent extremely hard, very to extremely firm, brittle 1/8 to 1/2 inch cylindrical durinodes in a friable or firm matrix or have a continuous brittle matrix.

Siscab series

The Siscab series consists of very shallow and shallow over duripan, well drained soils that formed in residuum and colluvium from granite. Siscab soils are on mountains. Slopes are 15 to 75 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow Aridic Argixerolls

Typical pedon: Siscab very bouldery loamy coarse sand, 30 to 50 percent slopes, in an area of map unit 1332. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 25 percent pebbles, 5 percent cobbles, 1 percent stones, and 2 percent boulders.

A1--0 to 1 inch; grayish brown (10YR 5/2) very bouldery loamy coarse sand, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine and fine interstitial pores; 25 percent pebbles, 5 percent

cobbles, 1 percent stones and 2 percent boulders; neutral; clear smooth boundary. A2--1 to 3 inches; grayish brown (10YR 5/2) gravelly coarse sandy loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and nonplastic; many very fine and fine roots; many very fine and fine interstitial pores; 25 percent pebbles and 5 percent cobbles; neutral; clear smooth boundary.

Bt--3 to 12 inches; brown (10YR 5/3) gravelly sandy clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine tubular pores; common thick clay films on faces of peds and lining pores; 30 percent pebbles; neutral; clear smooth boundary.

Cr--12 inches; soft granitic grus.

Type location: Humboldt County, Nevada; about 3.5 miles east of Trident Peak, about 600 feet north and 2,400 feet west of the southeast corner of section 35 T. 47 N., R. 32 E.; (41 degrees, 54 minutes, 13 seconds north latitude and 118 degrees, 21 minutes, 05 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry late July through early October.

Soil temperature: 48 to 52 degrees F.

Mollic epipedon thickness: 6 to 14 inches (includes the entire argillic or Bt horizon)

Depth to paralithic : 6 to 14 inches

Control section:

Clay content--Average 18 to 27 percent.

Rock fragments--15 to 35 percent,

predominantly 2 to 5 millimeter size pebbles.

Reaction--Slightly acid or neutral

A horizons:

Hue--10YR or 7.5YR.

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3

Bt horizon:

Hue--10YR or 7.5YR

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3.

Texture--Gravelly clay loam or gravelly sandy clay loam.
 Clay content--Average 27 to 35 percent.
 Rock fragments--15 to 35 percent, mainly fine pebbles
 Consistence--Slightly sticky or sticky and slightly plastic to very plastic.

Snapp series

The Snapp series consists of very deep, well drained soils formed in alluvium derived from mixed rocks. Snapp soils are on fan remnants and pediments. Slopes are 2 to 15 percent. Mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Clayey over sandy or sandy-skeletal, montmorillonitic, mesic Durixerollic Natrargids.

Typical pedon: Snapp very fine sandy loam, 2 to 8 percent slopes in an area of map unit 751. (Colors are for dry soils unless otherwise noted.)

A--0 to 5 inches; pale brown (10YR 6/3) very fine sandy loam, brown (10YR 4/3) moist; moderate thin platy structure; soft, very friable, nonsticky and nonplastic; many very fine and fine roots; many fine vesicular pores; 5 percent pebbles; moderately alkaline; clear smooth boundary.
 Btn--5 to 9 inches; light yellowish brown (10YR 6/4) clay loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine and fine and few medium roots; few fine tubular pores; few thin clay films on faces of peds; 5 percent pebbles; strongly alkaline; clear smooth boundary.
 Btkn--9 to 21 inches; light yellowish brown (10YR 6/4) clay, dark yellowish brown (10YR 4/4) moist; moderate fine prismatic structure parting to strong fine angular blocky; hard, firm, very sticky and very plastic; common very fine and fine roots; few fine tubular pores; continuous thin clay films on faces of peds; many fine lime seams; slightly effervescent; 5 percent pebbles; very strongly alkaline; clear wavy boundary.
 Bk--21 to 25 inches; pale brown (10YR 6/3) gravelly clay loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, firm, sticky and plastic; few very fine and fine roots; few fine

tubular pores; pebbles completely coated with lime, many fine lime seams; strongly effervescent; 30 percent pebbles; strongly alkaline; clear smooth boundary.
 2Bqk1--25 to 37 inches; very pale brown (10YR 7/4) extremely gravelly loamy sand, light yellowish brown (10YR 6/4) moist; massive; slightly hard, friable, nonsticky and nonplastic; few very fine and fine roots; few fine tubular pores; 15 percent durinodes; pebbles completely coated with lime; violently effervescent; 60 percent pebbles; strongly alkaline; clear smooth boundary.
 2Bqk2--37 to 60 inches; very pale brown (10YR 8/4) extremely gravelly loamy sand, very pale brown (10YR 7/4) moist; massive; hard, firm, and brittle, nonsticky and nonplastic; violently effervescent; 70 percent pebbles; continuous brittle matrix; strongly alkaline.

Type location: Humboldt County, Nevada; about 150 feet south and 1,320 feet east of the northwest corner of section 21, T. 34 N., R. 40 E.; (40 degrees, 48 minutes, 47 seconds north latitude and 117 degrees, 29 minutes, 04 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in the winter and spring months, dry from June through October.
Soil temperature: 47 to 52 degrees F.
Combined thickness of A and Bt horizons: 20 to 30 inches.
Depth to discontinuity: 20 to 35 inches.
Depth to Bqk horizons: 20 to 30 inches.
Depth to segregated lime: 3 to 17 inches.
Reaction: Moderately alkaline through very strongly alkaline.
Other features: Some pedons have C horizons below depths of 3 feet.
Control section:
 Clay content--35 to 60.

A horizon:
 Value--5 or 6 dry, 3 or 4 moist.
 Chroma--2 through 4.

Btn and Btkn horizons:
 Value--5 or 6 dry, 4 or 5 moist.
 Chroma--3 or 4.
 Clay content--35 to 60 percent.
 Texture--Clay loam, gravelly clay loam clay, or gravelly clay.

Rock fragments--5 to 35 percent, mainly pebbles.
Exchangeable sodium--15 to 25 percent.

Bk horizon:

Value--6 or 7 dry, 4 or 5 moist.
Chroma--3 through 5.
Rock fragments--15 to 35 percent, mainly pebbles.
Structure--Subangular blocky or is massive.

2Bqk horizons:

Value--6 through 8 dry, 5 through 7 moist.
Chroma--3 through 6.
Texture--Very gravelly or extremely gravelly loamy sand or sand.
Rock fragments--35 to 70 percent, mainly pebbles.
Segregated gypsum--Gypsum as soft masses or filaments are common in any subhorizon.
Silica cementation--Continuous weak brittle matrix in some subhorizon above 40 inches.

Snowmore Series

The Snowmore series consists of moderately deep to a duripan, well drained soils that formed in loess over residuum from basalt and rhyolite. Snowmore soils are on plateaus, hills, and mountains. Slopes are 0 to 30 percent. Mean annual precipitation is about 9 inches, and the mean annual temperature is about 47 degrees F.

Taxonomic class: Fine-loamy, mixed, mesic Xerollic Durargids

Typical pedon: Snowmore very fine sandy loam, 0 to 2 percent slopes in an area of map unit 981. (Colors are for dry soil unless otherwise noted.)

A--0 to 2 inches; brown (10YR 5/3) very fine sandy loam, dark brown (10YR 3/3) moist; moderate thin platy structure; slightly hard, very friable; slightly sticky and slightly plastic; many very fine roots; many very fine interstitial pores; 5 percent pebbles; neutral; abrupt wavy boundary.

Bt1--2 to 11 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; weak 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 tubular and common very

fine interstitial pores; few thin clay films lining pores; 10 percent pebbles; slightly alkaline; clear wavy boundary.

Bt2--11 to 15 inches; pale brown (10YR 6/3) clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine, fine and medium and few coarse roots; common very fine tubular and few very fine interstitial pores; few thin clay films on faces of peds and lining pores; 5 percent pebbles; moderately alkaline; abrupt wavy boundary.

Bqk--15 to 21 inches; pale brown (10YR 6/3) gravelly loam, brown (10YR 5/3) moist; moderate medium subangular blocky structure; hard, firm, and brittle, slightly sticky and slightly plastic; common very fine and fine roots; common very fine tubular and interstitial pores; many thin lime and silica pendants on rock fragments; strongly effervescent; 25 percent pebbles and 5 percent cobbles; continuous brittle matrix; moderately alkaline; abrupt wavy boundary.

Bqkm--21 to 24 inches; white (10YR 8/2) indurated duripan brown (10YR 5/3) moist; strong thick platy structure; very rigid; continuous thick laminar cap; violently effervescent; abrupt wavy boundary.

R--24 inches; basalt.

Type location: Humboldt County, Nevada; in an unsectionized area; (41 degrees, 34 minutes, 29 seconds north latitude and 117 degrees, 00 minutes, 25 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry in June through October.

Soil temperature: 47 to 52 degrees F.

Depth to Bq horizon: 11 to 18 inches.

Depth to duripan: 20 to 34 inches.

Depth to bedrock: 21 to 40 inches.

Control section:

Clay content--20 to 35 percent.

Rock fragments--0 to 15 percent, mainly pebbles.

A horizon:

Value--5 or 6 dry, 3 or 4 moist, the upper 7 inches after mixing, does not have both value or 5 dry, and 3 moist.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bt horizon:

Value--5 or 6 dry.
 Chroma--2 through 4.
 Texture--Loam, silt loam, clay loam or sandy clay loam.
 Consistence--Slightly sticky or sticky and slightly plastic or plastic, wet.
 Reaction--Slightly alkaline or moderately alkaline.

Bq, Bqk horizons:

Value--6 or 7 dry, 4 or 5 moist.
 Chroma--3 or 4
 Texture--Loam, gravelly or cobbly fine sandy loam, gravelly loam or gravelly clay loam.
 Reaction--Moderately alkaline or strongly alkaline.
 Effervescence--Noneffervescent through strongly effervescent.

Bqkm horizon:

Value--7 or 8 dry, 4 or 5 moist.
 Chroma--2 or 3.

Sodhouse series

The Sodhouse series consists of shallow to a duripan, well-drained soils that formed in alluvium from mixed rock sources with some influence from loess and volcanic ash. Sodhouse soils are on fan remnants and plateaus. Slopes are 0 to 8 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow Typic Durorthids

Typical pedon: Sodhouse very stony very fine sandy loam, 2 to 8 percent slopes in an area of map unit 690. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 10 percent pebbles, 10 percent cobbles, and 5 percent stones.

A1--0 to 3 inches; light gray (10YR 7/2) very stony very fine sandy loam, dark grayish brown (10YR 4/2) moist; moderate thin platy structure; slightly hard, very friable, nonsticky and slightly plastic; few fine roots; many fine and common medium vesicular pores; 10 percent pebbles, 10

percent cobbles and 5 percent stones; moderately alkaline; clear smooth boundary.
 A2--3 to 6 inches; light gray (10YR 7/2) very fine sandy loam, dark brown (10YR 4/3) moist; moderate thin platy structure; slightly hard, very friable, nonsticky and nonplastic; common fine roots; many fine tubular pores; 5 percent pebbles; moderately alkaline; clear smooth boundary.

Bw1--6 to 11 inches; very pale brown (10YR 7/3) very fine sandy loam, dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure; hard, firm, slightly sticky and slightly plastic; common very fine and fine roots; many fine tubular pores; 10 percent pebbles; strongly alkaline; clear smooth boundary.

Bw2--11 to 19 inches; pale brown (10YR 6/3) gravelly loam, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; common fine tubular pores; 20 percent pebbles, strongly alkaline; abrupt wavy boundary.

Bqkm--19 to 42 inches; white (10YR 8/2) indurated silica and lime cemented duripan, very pale brown (10YR 7/3) moist; strong thick platy structure; very rigid; strongly effervescent; 60 percent pebbles; moderately alkaline; clear wavy boundary.

2Bk--42 to 60 inches; light yellowish brown (10YR 6/4) extremely gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, friable, nonsticky and nonplastic; common moderately thick lime pendants on rock fragments; strongly effervescent; 60 percent pebbles; strongly alkaline.

Type location: Humboldt County, Nevada; about 3 miles south of Golconda; about 2,300 feet east, 1,850 feet south of the northwest corner of section 17, T. 35 N., R. 40 E.; (40 degrees, 54 minutes, 42 seconds north latitude and 117 degrees, 30 minutes, 02 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods in winter and spring, dry from June through November.

Soil temperature: 47 to 53 degrees F.

Depth to indurated duripan: 14 to 20 inches.

Thickness of duripan: 10 to 24 inches.

Depth to Bk horizon: 25 to 44 inches.

Reaction: Moderately alkaline or strongly alkaline usually increasing with depth.

Other features: Durinodes and lime accumulations are common in subhorizons immediately above the duripan of some pedons.

Control section:

Clay content--8 to 15 percent.

A horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Other features--Normally noneffervescent, but some pedons are slightly effervescent due to lime recharge from dust.

Bw horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--3 or 4.

Texture--Very fine sandy loam, fine sandy loam, loam or gravelly loam.

Consistence--Slightly hard or hard dry, friable or firm moist.

Rock fragments--5 to 35 percent, mainly pebbles.

Bqkm horizon:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 4 through 7 moist.

Chroma--2 through 4.

Structure--Platy or is massive.

2Bk horizon:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--3 or 4.

Texture--Extremely gravelly sandy loam, gravelly sandy loam, very gravelly loamy sand or very gravelly loamy coarse sand.

Consistence--Slightly hard or hard dry, friable or firm moist

Softscrabble series

The Softscrabble series consist of very deep, well drained soils that formed in residuum and colluvium from volcanic rocks with some areas of chert, quartzite and shale. Softscrabble soils are on mountains and plateaus. Slopes are 8 to 50

percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid Pachic Argixerolls

Typical pedon: Softscrabble stony fine sandy loam, 8 to 30 percent slopes, in an area of map unit 891. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 15 percent pebbles and 2 percent stones.

A1--0 to 3 inches; grayish brown (10YR 5/2) stony fine sandy 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 interstitial and tubular pores; 10 percent pebbles, 2 percent stones; slightly acid; abrupt smooth boundary.

A2--3 to 8 inches; grayish brown (10YR 5/2) loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium roots; many very fine and fine interstitial and tubular pores; 10 percent pebbles; neutral; abrupt smooth boundary.

Bt1--8 to 15 inches; grayish brown (10YR 5/2) gravelly clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine 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 interstitial and tubular pores; common moderately thick clay films on faces of peds and lining pores; 15 percent pebbles; neutral; clear smooth boundary.

Bt2--15 to 30 inches; grayish brown (10YR 5/2) very gravelly clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine and few medium roots; many very fine tubular pores; common thin clay films on faces of peds and lining pores; 40 percent pebbles and 7 percent cobbles; neutral; abrupt wavy boundary.

Bt3--30 to 61 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure; hard, firm, sticky

and plastic; few very fine and fine roots; many very fine tubular pores; common moderately thick clay films on faces of peds and many moderately thick clay films lining pores; 40 percent pebbles and 5 percent cobbles; neutral. Cr--61 inches; weathered rhyolite.

Type location: Humboldt County, Nevada; about 3.5 miles southeast of House Creek Butte; about 900 feet north and 400 feet east of the southwest corner of section 26, T. 46 N., R. 32 E.; (41 degrees, 50 minutes, 03 seconds north latitude and 118 degrees, 21 minutes, 40 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry mid-July to early October.

Soil temperature: 44 to 47 degrees F.

Mollic epipedon thickness: 20 to 38 inches.

Depth to base of Bt horizon: 60 to 80 inches.

Reaction: Slightly acid or neutral.

Control section:

Clay content--Averages 27 to 35 percent.

Rock fragments--35 to 70 percent pebbles and cobbles with few stones, when mixed.

A horizons:

Hue--10YR or 7.5YR.

Value--3 through 5 dry, 2 or 3 moist.

Chroma--2 or 3.

Bt horizons:

Hue--10YR or 7.5YR.

Value--4 through 6 dry, 3 or 4 moist.

Chroma--2 through 4 (4 in lower part only).

Texture--Loam and clay loam with an average of 35 to 70 percent rock fragments.

Individual horizons can have as few as 5 percent rock fragments.

Sojur series

The Sojur series consists of very shallow, well drained soils that formed in residuum from phyllite, slate and related metamorphic rocks. Sojur soils are on hills. Slopes are 15 to 50 percent. The mean annual precipitation is about 6 inches and the mean annual temperature is about 52 degrees F.

Taxonomic class: Loamy-skeletal, mixed (calcareous), mesic Lithic Torriorthents

Typical pedon: Sojur extremely channery silt loam, 15 to 50 percent slopes, in an area of map unit 241. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 45 percent channers and 20 percent flagstones.

A--0 to 5 inches; light gray (2.5Y 7/2) extremely channery silt loam, dark grayish brown (2.5Y 4/2) moist; moderate thin platy structure; soft, very friable, slightly sticky and slightly plastic; few very fine and fine roots; many very fine and fine interstitial pores; 50 percent channers, and 15 percent flagstones; strongly effervescent; moderately alkaline; abrupt irregular boundary.

R--5 inches; phyllite bedrock, highly fractured in the upper 3 inches.

Type location: Humboldt County, Nevada; about 8 miles northeast of Jungo; approximately 1,350 feet west and 2,200 feet south of the northeast corner, section 36, T. 37 N., R. 32 E.; (41 degrees, 02 minutes, 08 seconds north latitude and 118 degrees, 20 minutes, 26 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods in winter and early spring; dry mid May through November.

Soil temperature: 53 to 57 degrees F.

Depth to lithic contact: 4 to 10 inches.

Control section:

Clay content--18 to 25.

Texture--Extremely channery loam, extremely channery silt loam or very channery silt loam.

Rock fragments--50 to 75 percent when mixed with the surface rock fragments, mainly channers.

Profile reaction--Moderately alkaline or strongly alkaline.

Calcium carbonate equivalent--1 to 10 percent.

Effervescence--Strongly effervescent or violently effervescent.

A horizon:

Hue--5Y, 2.5Y, or 10YR.

Value--5 through 7 dry, 4 or 5 moist.
Chroma--2 through 4.

Sonoma series

The Sonoma series consists of very deep, poorly drained soils that formed in silty alluvium from mixed rock sources with some influence from volcanic ash. Sonoma soils are on stream terraces and floodplains. Slopes are 0 to 2 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Fine-silty, mixed (calcareous), mesic Aeric Fluvaquents

Typical pedon: Sonoma silt loam, strongly saline in an area of map unit 561. (Colors are for dry soil unless otherwise noted.)

A--0 to 6 inches; gray (10YR 6/1) silt loam, very dark grayish brown (10YR 3/2) moist; moderate coarse platy structure; hard, friable, slightly sticky and slightly plastic; many fine, medium and coarse roots; few fine interstitial pores strongly effervescent; strongly alkaline; clear smooth boundary.

AC--6 to 14 inches; gray (10YR 6/1) silty clay loam, very dark grayish brown (10YR 3/2) moist; weak coarse subangular blocky structure; hard, friable, sticky and plastic; many fine and medium roots; common fine and medium tubular and interstitial pores; strongly effervescent; strongly alkaline; clear smooth boundary.

C1--14 to 20 inches; light brownish gray (10YR 6/2) silty clay loam, dark grayish brown (2.5Y 4/2) moist; few medium, prominent, dark yellowish brown (10YR 4/4) moist, mottles; moderate fine and medium granular structure; hard, friable, sticky and plastic; many fine and medium roots; common fine and medium tubular and interstitial pores; strongly effervescent; strongly alkaline; clear irregular boundary.

C2--20 to 33 inches; light brownish gray (2.5Y 6/2) silt loam, dark grayish brown (2.5Y 4/2) moist; many medium, prominent, dark yellowish brown (10YR 4/4) moist, mottles; massive; slightly hard, friable, sticky and plastic; common fine and medium roots; many fine and medium and few coarse tubular pores; many

fresh water crustacean shells; strongly effervescent; strongly alkaline; clear smooth boundary.

C3--33 to 67 inches, light yellowish brown (2.5Y 6/4) silt loam, dark brown (10YR 4/3) moist; massive; slightly hard, friable, sticky and plastic; few fine roots; many fine and medium and few coarse tubular pores; many fresh water crustacean shells; few 1/4 to 1/2-inch diameter white (2.5Y 8.2) lime nodules; strongly effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 4 miles northeast of Winnemucca; about 1,200 feet east and 1,500 feet north of the south west corner section 34, T. 37 N., R. 38 E.; (41 degrees, 02 minutes, 13 seconds north latitude and 117 degrees, 41 minutes, 32 seconds west longitude.)

Range in characteristics:

Soil moisture: Saturated during spring and early summer with the water table at depths below 40 inches during the remainder of the year, unless drained.

Soil temperature: 49 to 53 degrees F.

Depth to buried A horizon: 24 to 55 inches. Some pedons lack buried A horizons.

Carbonates: Calcium carbonate equivalent is 3 to 12 percent throughout the profile and is strongly effervescent or violently effervescent.

Control section:

Clay content--25 to 35 percent.

A and AC horizon:

Hue--2.5Y or 10YR.

Value--3 through 5 moist.

Chroma--1 or 2.

Reaction--Moderately alkaline through very strongly alkaline; buried A horizons are moderately alkaline or strongly alkaline.

C horizons:

Hue--10YR through 5Y.

Value--6 through 8 dry, 3 through 6 moist.

Chroma--1 or 2. Subhorizons in some pedons have chroma of 3 or 4.

Structure--Platy, prismatic, granular, subangular blocky or the horizon is massive.

Texture--Stratified silt loam to silty clay loam with strata of clay or silty clay in some pedons.

Reaction--Moderately alkaline through very strongly alkaline.

Other features--Fresh-water crustacean shells and 1/4 to 1/2 inch diameter lime concretions in most pedons.

Soolake series

The Soolake series consists of very deep, somewhat excessively drained soils that formed in alluvium from mixed rock sources. Soolake soils are on basin floor remnants. Slopes are 0 to 2 percent. The mean annual precipitation is about 8 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Sandy, mixed, mesic Typic Torriorthents

Typical pedon: Soolake fine sandy loam, in an area of map unit 1090. (Colors are for dry soil unless otherwise noted.)

A1--0 to 3 inches; light brownish gray (10YR 6/2) fine sandy loam, grayish brown (10YR 5/2) moist; moderate fine platy structure; slightly hard, very friable, nonsticky and slightly plastic; few very fine roots; many very fine interstitial pores; slightly effervescent; strongly alkaline; abrupt smooth boundary.

A2--3 to 10 inches; light brownish gray (10YR 6/2) fine sandy loam, dark grayish brown (10YR 4/2) moist; moderate very thin platy structure; slightly hard, very friable, nonsticky and slightly plastic; many very fine and fine roots; many very fine interstitial and tubular pores; slightly effervescent; strongly alkaline; abrupt wavy boundary

C--10 to 20 inches; light brownish gray (2.5Y 6/2) fine sandy loam, dark grayish brown (2.5Y 4/2) moist; massive; slightly hard, very friable, nonsticky and slightly plastic; common very fine and few fine roots; many very fine interstitial and tubular pores; strongly effervescent; very strongly alkaline; clear wavy boundary.

2Ck--20 to 50 inches; light brownish gray (2.5Y 6/2) loamy fine sand, dark grayish brown (2.5Y 4/2) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine, fine and medium roots; many very fine interstitial pores; few fine white (10YR 8/2) soft masses of lime; strongly effervescent; very strongly alkaline; clear wavy boundary.

2Cqk--50 to 60 inches; light brownish gray (10YR 6/2) loamy fine sand, brown (10YR 4/3) moist; massive; hard, firm, and brittle, nonsticky and nonplastic; few very fine roots; many very fine interstitial pores; common fine white (10YR 8/2) soft masses of lime; strongly effervescent; continuous brittle matrix; very strongly alkaline.

Type location: Humboldt County, Nevada; approximately 4.5 miles north of the 25 Ranch; about 1,600 feet south and 1,100 feet west of the northeast corner, section 16, T. 34 N., R 44 E.; (40 degrees, 49 minutes, 31 seconds north latitude and 117 degrees, 01 minute, 10 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; intermittently moist in winter and spring, dry late May through November.

Soil temperature: 48 to 53 degrees F.

Reaction: Strongly alkaline or very strongly alkaline.

Depth to unconformable sandy material: 12 to 24 inches.

Depth to secondary lime: 12 to 24 inches.

Control section:

Clay content--0 to 9 percent after mixing

Rock fragments--Averages 0 to 5 percent fine pebbles

A horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 3 through 5 moist.

Chroma--2 through 4.

Effervescence--Slightly effervescent or strongly effervescent.

C horizons:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Fine sandy loam or very fine sandy loam; silt loam layers are in some pedons.

Clay content--5 to 15 percent.

Consistence--Soft or slightly hard, dry;

nonsticky or slightly sticky and nonplastic or slightly plastic, wet.

Effervescence--Strongly effervescent or violently effervescent.

2Ck and 2Cqk horizons:

Hue--10YR or 2.5Y.

Value--6 through 8 dry; 4 through 6 moist.
 Chroma--2 through 4.
 Texture--Stratified sand to loamy fine sand.
 Clay content--0 to 5 percent.
 Rock fragments--0 to 10 percent fine pebbles.
 Carbonates and effervescence--Lime is disseminated and in soft masses and filaments in most pedons. Strongly effervescent or violently effervescent.
 Duric material--Up to 20 percent weakly cemented durinodes are common in any subhorizon below 10 inches. Continuous very weak or weak brittle matrix is common below 40 inches in most pedons.
 Other features--These soils normally are slightly saline-alkali affected above 13 inches and strongly saline-alkali affected below.

Soughe series

The Soughe series consists of shallow, well drained soils that formed in residuum and colluvium from various rocks. The Soughe soils are on hills, plateaus, and mountains. Slopes are 4 to 75 percent. The mean annual precipitation is about 10 inches and the mean annual temperature is about 46 degrees F.

Taxonomic class: Loamy-skeletal, mixed, mesic Lithic Xerollic Haplargids

Typical pedon: Soughe extremely gravelly fine sandy loam, 15 to 50 percent slopes, in an area of map unit 944. (Colors are for dry soil unless otherwise noted.)

A--0 to 4 inches; pale brown (10YR 6/3) extremely gravelly fine sandy loam, brown (10YR 4/3) moist; moderate medium platy structure; soft, very friable, nonsticky and nonplastic; common very fine roots; many very fine and fine vesicular pores; 50 percent pebbles and 10 percent cobbles; moderately alkaline; abrupt smooth boundary.

Bt1--4 to 7 inches; brown (10YR 5/3) very gravelly clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure parting to moderate fine granular; soft, friable, sticky and plastic; many very fine and common fine and medium roots; many very fine and fine interstitial and tubular pores; common thin clay films on faces of peds and lining pores; 40

percent pebbles; slightly alkaline; abrupt smooth boundary.
 Bt2--7 to 14 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine, fine and medium roots; many very fine, common fine and medium tubular pores; few thin clay films on faces of peds and common thin clay films lining pores; 55 percent pebbles; slightly alkaline; abrupt wavy boundary.
 R--14 inches; fractured basalt.

Type location: Humboldt County, Nevada; approximately 400 feet south and 200 feet east of the northwest corner of section 9, T. 41 N., R. 41 E.; (41 degrees, 27 minutes, 15 seconds north latitude and 117 degrees, 21 minutes, 43 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry mid-June through October.

Soil temperature: 47 to 50 degrees.

Depth to bedrock: 10 to 20 inches.

Reaction: Neutral to moderately alkaline.

Control section:

Clay content--25 to 35 percent.

Rock fragments--35 to 60 percent, mainly pebbles with 0 to 10 percent cobbles.

A horizon:

Value--5 or 6 dry, 3 or 4 moist.

Bt horizon:

Value--4 through 6 dry, 3 or 4 moist.

Chroma--3 or 4.

Texture--Very gravelly clay loam, very gravelly sandy clay loam, or very gravelly loam.

Structure--Weak to strong, very fine to very coarse subangular blocky or moderate to strong, medium angular blocky.

Consistence--Soft to hard, dry; very friable or friable, moist.

Spinlin series

The Spinlin series consists of moderately deep, well drained soils that formed in residuum and colluvium from quartzite, chert, andesite and

rhyolite. Spinlin soils are on mountains. Slopes are 30 to 50 percent. The mean annual precipitation is about 13 inches and the mean annual temperature is about 38 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic Argic Cryoborolls

Typical pedon: Spinlin very stony silt loam, 30 to 50 percent slopes in an area of map unit 281. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 15 percent pebbles and 10 percent stones.

A--0 to 6 inches; grayish brown (10YR 5/2) very stony silt loam, very dark grayish brown (10YR 3/2) moist; weak thin platy structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine roots; many very fine interstitial pores; 15 percent pebbles and 10 percent stones; neutral; clear wavy boundary.

Bt1--6 to 16 inches; grayish brown (10YR 5/2) very cobbly clay, dark brown (10YR 3/3) moist; moderate very fine subangular blocky structure; hard, firm, very sticky and very plastic; common very fine roots; common very fine interstitial and tubular pores; few thin clay films on faces of peds and lining pores; 15 percent pebbles and 20 percent cobbles; neutral; abrupt wavy boundary.

Bt2--16 to 24 inches; brown (10YR 5/3) very cobbly clay, dark yellowish brown (10YR 4/4) moist; weak fine prismatic structure; very hard, firm, very sticky and very plastic; few very fine roots; common very fine tubular pores; many thin and few moderately thick clay films on faces of peds and lining pores; 15 percent pebbles and 20 percent cobbles; neutral; clear wavy boundary.

Btk--24 to 36 inches; yellowish brown (10YR 5/4) very cobbly clay, dark yellowish brown (10YR 4/4) moist; weak fine angular blocky structure; hard, firm, very sticky and very plastic; few very fine roots; few very fine interstitial and tubular pores; many thin clay films on faces of peds and lining pores; many medium distinct soft masses of lime, many thin lime-coats on cobbles and pebbles that are violently effervescent; strongly effervescent matrix; 15 percent pebbles and 25 percent cobbles; moderately alkaline; abrupt wavy boundary.

Cr--36 to 48 inches; yellowish brown saprolite weathered from quartzite and chert; massive;

hard, firm; strongly effervescent; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 15 miles southeast of Winnemucca in the Sonoma Range; approximately 1,800 feet east and 900 feet north of the southwest corner of section 23, T. 34 N., R. 39 E.; (40 degrees, 48 minutes, 07 second north latitude and 117 degrees, 33 minutes, 39 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring; dry mid July to October.

Soil temperature: 36 to 41 degrees F.

Average summer soil temperature: 54 to 59 degrees F.

Mollic epipedon thickness: 10 to 16 inches.

Depth to paralithic contact: 30 to 40 inches.

Depth to secondary lime: 18 to 29 inches.

Control section:

Clay content--40 to 60 percent.

Rock fragments--35 to 50 percent, mainly pebbles and cobbles.

A horizon:

Chroma--2 through 4.

Bt horizon:

Chroma--2 through 4.

Texture--Very gravelly clay or very cobbly clay.

Structure--Subangular blocky, angular blocky, or prismatic structure.

Reaction--Neutral in the upper part through moderately alkaline in the lower part.

Sumine series

The Sumine series consists of moderately deep, well drained soils that formed in residuum and colluvium from mixed rocks. The Sumine soils are on mountains and plateaus. Slopes are 15 to 75 percent. The mean annual precipitation is about 12 inches and the mean annual temperature is about 42 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid Aridic Argixerolls

Typical pedon: Sumine very cobbly loam, 30 to 50

percent slopes, in an area of map unit 581.
(Colors are for dry soil unless otherwise noted.)

A1--0 to 3 inches; brown (10YR 5/3) very cobbly loam, dark brown (10YR 3/3) moist; weak very thin platy that parts to weak very fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine roots; many very fine interstitial pores; 20 percent pebbles, 15 percent cobbles and 3 percent stones; neutral; clear smooth boundary.

A2--3 to 6 inches; brown (10YR 5/3) 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 fine roots; many very fine interstitial pores; 20 percent pebbles; neutral; abrupt wavy boundary.

Bt1--6 to 10 inches; brown (10YR 5/3) gravelly clay loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; soft, very friable, sticky and plastic; common fine and very fine roots; many very fine interstitial and common very fine tubular pores; common thin clay films on faces of peds and lining pores; 30 percent pebbles; neutral; clear wavy boundary.

Bt2--10 to 24 inches; brown (10YR 5/3) very gravelly clay loam, dark brown (10YR 4/3) moist; moderate very fine angular blocky structure; hard, firm, very sticky and very plastic; few very fine roots; common very fine interstitial pores; many moderately thick clay films on faces of peds and lining pores; 40 percent pebbles and 5 percent cobbles; neutral; abrupt wavy boundary.

Bt3--24 to 28 inches; pale brown (10YR 6/3) very gravelly clay loam, brown (10YR 4/3) moist; weak very fine angular blocky structure; hard, firm, very sticky and very plastic; many very fine interstitial pores; common moderately thick clay films on faces of peds and lining pores; 40 percent pebbles and 15 percent cobbles; neutral; abrupt wavy boundary.

2R--28 to 32 inches; fractured quartzite with many moderately thick clay coatings on rock fragments and in cracks.

Type location: Humboldt County, Nevada; approximately 6 miles southeast of Winnemucca in Thomas Canyon; approximately 2,400 feet west and 800 feet north of the southeast corner of section 14, T. 35 N., R. 38 E.; (40 degrees, 54 minutes, 12 seconds north

latitude and 117 degrees, 40 minutes, 07 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in the winter and spring, dry from early July through mid-October.

Soil temperature: 42 to 47 degrees F.

Mollic epipedon thickness: 8 to 17 inches thick.

Depth to bedrock (lithic contact): 20 to 40 inches.

Combined thickness of the A and Bt horizons: 20 to 40 inches.

Control section:

Clay content--25 to 35 percent, when mixed.

Profile reaction--Neutral or slightly alkaline.

Rock fragments--35 to 60 percent, when averaged.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3.

Bt horizons:

Hue--10YR or 7.5YR.

Value--4 through 6 dry, 2 through 4 moist.

Chroma--2 through 4.

Structure--Weak or moderate, very fine to medium angular or subangular blocky. The lower Bt horizons may be massive.

Tenabo series

The Tenabo series consists of shallow to a duripan, well drained soils that formed in a thin loess mantle high in volcanic ash over alluvium from mixed rock sources. Tenabo soils are on plateaus and fan remnants. Slopes are 0 to 15 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Loamy, mixed, mesic, shallow Typic Nadurargids

Typical pedon: Tenabo very fine sandy loam, 0 to 4 percent slopes, in an area of map unit 1310. (Colors are for dry soil unless otherwise noted.)

A1--0 to 4 inches; light gray (10YR 7/2) very fine sandy loam, dark grayish brown (10YR 4/2) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly

plastic; common very fine roots; many very fine vesicular pores; moderately alkaline; abrupt wavy boundary.

- A2--4 to 9 inches; light gray (10YR 7/2) very fine sandy loam, dark grayish brown (10YR 4/2) moist; moderate medium and thick platy structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine, and few medium roots; many very fine tubular and interstitial pores; strongly alkaline; abrupt wavy boundary.
- 2B_{tn}1--9 to 13 inches; pale brown (10YR 6/3) silty clay loam, brown (10YR 4/3) moist; weak medium prismatic structure; slightly hard, friable, sticky and plastic; many very fine and common fine roots; many very fine and common fine tubular pores; common moderately thick clay films coating faces of peds and lining pores; 5 percent pebbles; strongly alkaline; clear wavy boundary.
- 2B_{tn}2--13 to 16 inches; pale brown (10YR 6/3) silty clay loam, brown (10YR 4/3) moist; weak medium prismatic structure parting to moderate fine subangular blocky; slightly hard, friable, sticky and plastic; many very fine and few fine roots; many very fine tubular pores; common moderately thick clay films coating faces of peds and lining pores; strongly effervescent; 5 percent pebbles; strongly alkaline; abrupt wavy boundary.
- 2B_{qkm}--16 to 22 inches; white (10YR 8/2) indurated duripan, brown (10YR 5/3) moist; massive; very rigid; continuous 2 mm thick silica laminae cap; violently effervescent; clear wavy boundary.
- 3C_{qk}--22 to 60 inches; light brownish gray (10YR 6/2) very gravelly loamy sand, dark grayish brown (10YR 4/2) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine roots; many very fine interstitial pores; 65 percent discontinuous silica and lime cemented laminae; violently effervescent; 40 percent pebbles and 10 percent cobbles; very strongly alkaline.

Type location: Humboldt County, Nevada; approximately 6 miles northwest of Nadine Butte in an unsectionized area of T. 47 N., R. 43 E.; (41 degrees, 58 minutes, 40 seconds north latitude and 117 degrees, 07 minutes, 03 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry late May through November.

Soil temperature: 47 to 51 degrees F.

Depth to duripan: 9 to 20 inches.

Reaction: Moderately alkaline or strongly alkaline in the A and B_t horizons and moderately alkaline to very strongly alkaline below the B_t horizon.

Other features: In areas subject to recharge with lime, effervescence is highly variable above the duripan. It ranges from noneffervescent at the surface to violently effervescent in the layer above the duripan.

Control section:

Clay content--27 to 35 percent.

Rock fragments--Less than 20 percent, when mixed.

A horizons:

Hue--10YR or 2.5Y.

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

2B_{tn} horizons:

Value--5 through 7 dry, 4 or 5 moist.

Chroma--3 through 6.

Texture--Clay loam, silty clay loam, sandy clay loam with thin strata of silt loam in some pedons.

Rock fragments--Less than 20 percent, mainly pebbles. This may include some duripan fragments.

Structure--Weak or moderate fine or medium prismatic, angular blocky or subangular blocky.

Consistence--Slightly hard to very hard, dry.

Reaction--Moderately alkaline or strongly alkaline, usually increasing with depth.

Exchangeable sodium--15 to 30 percent.

Carbonates--The lower subhorizons of some pedons are violently effervescent and contain segregated lime.

2B_{qkm} horizon:

Value--6 through 8 dry, 4 through 7 moist.

Chroma--2 through 4.

Other features--Very hard to extremely hard continuous laminae stratified with strongly cemented materials.

3C horizon:

Value--6 or 7 dry.

Chroma--2 or 3.

Texture--Gravelly to extremely gravelly sand, loamy sand, or sandy loam.

Rock fragments--15 to 85 percent, mainly pebbles.

Theon series

The Theon series consists of very shallow and shallow, well drained soils that formed in residuum and colluvium from andesite, rhyolite, and quartzite. Theon soils are on hills. Slopes are 15 to 50 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 52 degrees F.

Taxonomic class: Loamy-skeletal, mixed, mesic Lithic Haplargids

Typical pedon: Theon very cobbly loam, 15 to 50 percent slopes, in an area of map unit 1110. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 25 percent pebbles and 15 percent cobbles.

A--0 to 2 inches; pale brown (10YR 6/3) very cobbly loam, brown (10YR 4/3) moist; moderate medium platy structure; soft, very friable, nonsticky and slightly plastic; few very fine and fine roots; many very fine and fine vesicular pores; 25 percent pebbles and 20 percent cobbles; slightly effervescent; moderately alkaline; abrupt smooth boundary.

Bt1--2 to 5 inches; pale brown (10YR 6/3) very gravelly loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine, fine and medium roots; many very fine and fine interstitial pores; common thin clay films lining pores; 40 percent pebbles; moderately alkaline; abrupt smooth boundary.

Bt2--5 to 11 inches; brown (10YR 5/3) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine, fine, and common medium roots; many very fine and fine tubular and interstitial pores; many thin clay films

coating faces of peds and lining pores; 45 percent pebbles and 5 percent cobbles; strongly alkaline; abrupt wavy boundary.

2R--11 inches; quartzite that is highly fractured and weathered in the upper 2 inches; common fine roots in fractures; thin lime-silica coats in fractures.

Type location: Humboldt County, Nevada; approximately 2 miles north of Woody Canyon in the Eugene Mountains; about 500 feet west and 1,700 feet north of the southeast corner of section 35, T. 35 N., R 33 E.; (40 degrees, 51 minutes, 43 seconds north latitude and 118 degrees, 14 minutes, 03 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods in winter and spring, dry late May through November.

Soil temperature: 53 to 57 degrees F.

Combined thickness of A and Bt horizons: 8 to 14 inches.

Depth to lithic contact: 8 to 14 inches.

Control section:

Clay content--25 to 35 percent.

Rock fragments--35 to 60 percent, mainly pebbles.

A horizon:

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 through 4.

Rock fragments--35 to 80 percent.

Reaction--Neutral through moderately alkaline.

Bt horizon:

Hue--10YR, 7.5YR or 5YR.

Value--4 through 7 dry; 3 through 5 moist.

Chroma--3 or 4.

Texture--Very gravelly clay loam, very gravelly sandy clay loam, or very gravelly loam.

Subhorizons of some pedons are extremely gravelly.

Reaction--Neutral through strongly alkaline.

R horizon:

Other features--Some pedons have discontinuous thin coats of silica or silica and lime along weak fracture planes.

Tosp series

The Tosp series consists of deep and very deep, well drained soils that formed in residuum and colluvium from granite. Tosp soils are on mountains. Slopes are 15 to 50 percent. The mean annual precipitation is about 18 inches and the mean annual temperature is about 41 degrees F.

Taxonomic class: Coarse-loamy, mixed Pachic Cryoborolls

Typical pedon: Tosp loam, 15 to 50 percent slopes, in an area of map unit 1410. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 5 percent pebbles.

A1--0 to 2 inches; very dark grayish brown (10YR 3/2) loam, black (10YR 2/1) moist; weak moderate subangular blocky structure parting to medium fine granular; slightly hard, very friable, nonsticky and nonplastic; common very fine and few fine, medium, coarse and very coarse roots; many very fine interstitial pores; 5 percent pebbles; slightly acid; abrupt smooth boundary.

A2--2 to 14 inches; dark grayish brown (10YR 4/2) sandy loam, very dark brown (10YR 2/2) moist; moderate medium subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; common very fine, fine, medium, coarse and very coarse roots; common very fine and few fine and medium tubular pores; 5 percent pebbles; slightly acid; clear smooth boundary.

A3--14 to 34 inches; brown (10YR 5/3) sandy loam, dark brown (10YR 3/3) moist; weak coarse subangular blocky structure parting to moderate medium subangular blocky; slightly hard, very friable, nonsticky and nonplastic; few medium roots; common very fine and fine tubular pores; 10 percent pebbles; neutral; clear wavy boundary.

C--34 to 51 inches; light yellowish brown (10YR 6/4) very gravelly coarse sandy loam, dark yellowish brown (10YR 3/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common very fine and few fine and medium roots; common very fine, fine and medium tubular pores; 35 percent pebbles; neutral; clear smooth boundary.

R--51 inches; hard granitic rock that is highly fractured and weathered in the upper 3 inches.

Type location: Humboldt County, Nevada; near Falls Canyon in the Santa Rosa Mountains in an unsectionized area of T. 42 N., R. 38 E.; (41 degrees, 29 minutes, 40 seconds north latitude and 117 degrees, 41 minutes, 30 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually moist, not dry in all parts for as long as 45 consecutive days in the four months that follow the summer solstice, or not dry in some or all parts for more than 90 days cumulative.

Soil temperature: 41 to 45 degrees F.

Average summer soil temperature: 53 to 57 degrees F.

Mollic epipedon thickness: 30 to 46 inches thick.

Depth to bedrock: 40 to over 60 inches.

Reaction: Slightly acid or neutral.

Control section:

Clay content--10 to 18 percent.

Rock fragments--Averages 5 to 15 percent, predominantly 2 to 5 millimeter size pebbles, but subhorizons in the lower part of the control section may contain up to 50 percent pebbles.

A horizons:

Value--3 through 5 dry, 2 or 3 moist.

Chroma--1 through 3, with chroma of 1 occurring predominantly in the A1 or A2 horizons and chroma of 3 occurring in the A3 horizon and below.

C horizon:

Value--4 through 6 dry, 2 through 4 moist.

Chroma--2 through 4.

Texture--Coarse sandy loam or sandy loam.

Rock fragments--10 to 50 percent, predominantly 2 to 5 millimeters size pebbles.

Tresed series

The Tresed series consists of very deep, moderately well drained soils that formed in lacustrine sediments. Tresed soils are on lake plains. Slopes are 0 to 2 percent. The mean annual precipitation is about 6 inches and the mean annual air temperature is about 52 degrees F.

Taxonomic class: Clayey over loamy, montmorillonitic (calcareous), mesic Typic Torriorthents

Typical pedon: Tressed loamy very fine sand, in an area of map unit 1292. (Colors are for dry soil unless otherwise noted.)

A--0 to 6 inches; light brownish gray (10YR 6/2) loamy very fine sand, dark grayish brown (10YR 4/2) moist; weak coarse prismatic structure; slightly hard, friable, nonsticky and nonplastic; many very fine roots at lower boundary; many very fine vesicular and interstitial pores; strongly alkaline; abrupt wavy boundary.

C1--6 to 10 inches; white (10YR 8/2) very fine sandy loam, pale brown (10YR 6/3) moist; light yellowish brown (10YR 6/4) organic stains; weak medium prismatic and strong very thin and thin platy structure; hard, friable, slightly sticky and slightly plastic; many very fine and common fine roots along prism faces; common very fine tubular pores; violently effervescent; very strongly alkaline; clear wavy boundary

2C2--10 to 25 inches; light gray (2.5Y 7/2) silty clay, olive (5Y 5/3) moist; brown (10YR 5/3) organic stains; weak very fine and fine prismatic structure parting to moderate very fine, fine and medium angular blocky; hard, friable, very sticky and very plastic; many very fine and common fine roots along prism faces; few very fine tubular pores; many thin pressure faces; violently effervescent; strongly alkaline; abrupt wavy boundary.

3C3--25 to 39 inches; light gray (10YR 7/2) stratified very fine sandy loam and silt loam, dark grayish brown (2.5Y 4/2) moist; many fine distinct brownish yellow (10YR 6/6) relict mottles; massive; soft to slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine interstitial pores; strongly effervescent; moderately alkaline; clear wavy boundary.

3Cky--39 to 51 inches; light gray (10YR 7/2) very fine sandy loam, dark grayish brown (2.5Y 4/2) moist; massive; hard, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine interstitial pores; common fine filaments and threads of gypsum and lime; lime coats on some sand particles; strongly effervescent; strongly alkaline; clear wavy boundary.

3C4--51 to 62 inches; light gray (2.5Y 7/2) silt loam, dark grayish brown (2.5Y 4/2) moist;

massive; slightly hard, very friable, sticky and slightly plastic; few very fine roots; many very fine interstitial pores; strongly effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 30 miles northwest of Winnemucca in Desert Valley, about 1,100 feet east and 2,200 feet north of the southwest corner of section 25, T. 38 N., R. 33 E.; (41 degrees, 08 minutes, 27 seconds north latitude and 118 degrees, 13 minutes, 58 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and early spring.

Soil temperature: 53 to 59 degrees F.

Depth to contrasting loamy material: 15 to 30 inches.

Other features: Relic mottles or concretions are common in most pedons.

A horizon:

Value--6 or 7 dry, 4 through 6 moist.

Chroma--2 through 4.

Reaction--Slightly alkaline to very strongly alkaline.

2C2 horizons:

Hue--10YR, 2.5Y or 5Y.

Value--6 or 7 dry, 4 through 6 moist.

Chroma--2 through 4.

Texture--Silty clay, clay, clay loam or silty clay loam.

Clay content--35 to 55 percent.

Structure--Commonly platy, prismatic or is massive.

Consistence--Slightly hard or hard, dry.

Reaction--Strongly alkaline through very strongly alkaline.

Effervescence--Slightly effervescent to violently effervescent.

3C horizons:

Hue--10YR, 2.5Y or 5Y.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 or 3.

Texture--Stratified very fine sand to silt loam.

Clay content--5 to 10 percent.

Structure--Platy, prismatic or massive; angular blocky horizons are in some pedons.

Consistence--Soft to hard, dry.

Reaction--Moderately alkaline through very strongly alkaline.

Effervescence--Slightly to violently effervescent.

Other features--Gypsum filaments or fine crystals are in most pedons.

Trocken series

The Trocken series consists of very deep, well drained soils that formed in mixed alluvium. Trocken soils are on longshore bars and inset fans. Slopes are 0 to 8 percent. The mean annual precipitation is about 6 inches and the mean annual temperature is about 52 degrees F.

Taxonomic class: Loamy-skeletal, mixed (calcareous), mesic Typic Torriorthents

Typical pedon: Trocken gravelly very fine sandy loam, 2 to 8 percent slopes, in an area of map unit 511. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light brownish gray (2.5Y 6/2) gravelly very fine sandy loam, dark grayish brown (2.5Y 4/2) moist; moderate thin platy structure; soft, very friable, nonsticky and slightly plastic; few very fine roots; common very fine vesicular and tubular pores; slightly effervescent; 15 percent pebbles; moderately alkaline; abrupt smooth boundary.

A2--2 to 5 inches; light brownish gray (2.5Y 6/2) gravelly fine sandy loam, dark grayish brown (2.5Y 4/2) moist moderate fine platy structure; soft, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine vesicular and tubular pores; slightly effervescent; 15 percent pebbles; moderately alkaline; abrupt smooth boundary.

Bw--5 to 8 inches; light yellowish brown (2.5Y 6/4) gravelly fine sandy loam, light olive brown (2.5Y 5/4) moist moderate medium platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine and fine vesicular and tubular pores; slightly effervescent; 20 percent pebbles; moderately alkaline; abrupt smooth boundary.

Bk1--8 to 12 inches; light brownish gray (2.5Y 6/2) gravelly sandy loam, grayish brown (2.5Y 5/2) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; common very

fine and few fine roots; common very fine tubular pores; few thin lime pendants on rock fragments; strongly effervescent; 30 percent pebbles and 2 percent cobbles; strongly alkaline; abrupt wavy boundary.

Bk2--12 to 20 inches; light brownish gray (2.5Y 6/2) very gravelly sandy loam, grayish brown (2.5Y 5/2) moist massive; slightly hard, very friable, nonsticky and nonplastic; common very fine and few fine roots; common very fine tubular and interstitial pores; few moderately thick lime pendants on rock fragments; violently effervescent; 40 percent pebbles and 3 percent cobbles; strongly alkaline; abrupt wavy boundary.

2Bk3--20 to 32 inches; light brownish gray (2.5Y 6/2) stratified very gravelly loamy coarse sand to very gravelly sandy loam, grayish brown (2.5Y 5/2) moist; massive; soft, very friable, nonsticky and nonplastic; many very fine and few fine roots; many very fine interstitial pores; few thin lime pendants on rock fragments; 35 percent pebbles and 5 percent cobbles; violently effervescent; strongly alkaline; abrupt wavy boundary.

3Bk4--32 to 60 inches; pale yellow (2.5Y 7/4) stratified extremely gravelly sandy loam to very gravelly loam, light olive brown (2.5Y 5/4) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine interstitial pores; few thin lime pendants on rock fragments; violently effervescent; 60 percent pebbles and 5 percent cobbles; strongly alkaline.

Type location: Humboldt County, Nevada, approximately 8 miles southwest of Blue Mountain; about 1,100 feet north and 400 feet east of the southwest corner of section 10, T. 35 N., R. 34 E.; (40 degrees, 55 minutes, 08 seconds north latitude and 118 degrees, 09 minutes, 13 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods in the winter and spring, dry late May through November.

Soil temperature: 53 to 57 degrees F.

Combined thickness of A and Bw horizons: 5 to 10 inches.

Profile reaction: Neutral through very strongly alkaline.

Control section:

Clay content--8 to 18 percent.
Rock fragments--35 to 70 percent.

A horizons:

Hue--10YR or 2.5Y.
Value--5 through 7 dry; 4 through 6 moist.
Chroma--2 or 3.

Bw and Bk horizons:

Hue--7.5YR, 10YR or 2.5Y.
Value--5 through 7 dry, 4 or 5 moist.
Chroma--2 through 4.
Structure--Subangular blocky, platy or is massive.
Texture--Highly stratified layers that average very cobbly loam to extremely gravelly coarse sandy loam, individual strata range from gravelly loam to extremely gravelly coarse sand.
Consistence--Soft or slightly hard, dry.
Rock fragments--20 to 65 percent in individual subhorizons.

Trunk series

The Trunk series consists of moderately deep, well drained soils that formed in residuum and colluvium from andesite, rhyolite, quartzite, chert, argillite and shale. Trunk soils are on mountains, plateaus, and hills. Slopes are 4 to 50 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Fine, montmorillonitic, mesic Xerollic Haplargids

Typical pedon: Trunk very cobbly loam, 15 to 50 percent slopes, in an area of map unit 596. (Colors are for dry soil unless otherwise noted.)

A--0 to 6 inches; pale brown (10YR 6/3) very cobbly loam, brown (10YR 4/3) moist; moderate very fine platy structure; soft, very friable, slightly sticky and slightly plastic; many very fine roots; many very fine, common fine and few medium vesicular pores; 15 percent pebbles, 20 percent cobbles, and 1 percent stones; neutral; clear smooth boundary.

Bt1--6 to 11 inches; pale brown (10YR 6/3) gravelly clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure;

slightly hard, friable, sticky and plastic; common very fine and few fine roots; few fine and medium tubular pores; few thin clay films on faces of peds and lining pores; 20 percent pebbles; neutral; clear smooth boundary.

Bt2--11 to 16 inches; light yellowish brown (10YR 6/4) gravelly clay, dark yellowish brown (10YR 4/4) moist; strong fine and medium subangular blocky structure; hard, firm, sticky and plastic; few very fine, fine and medium roots; common very fine tubular pores; many thin clay films on faces of peds and lining pores; 15 percent pebbles; slightly alkaline; clear smooth boundary.

Btk1--16 to 28 inches; light yellowish brown (10YR 6/4) gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine and medium subangular blocky structure; hard, firm, sticky and plastic; few very fine, fine and medium roots; common very fine tubular pores; common thin clay films on faces of peds and lining pores; common fine and medium white (10YR 8/2) soft filaments of lime; slightly effervescent; 20 percent pebbles and 5 percent cobbles; moderately alkaline; clear smooth boundary.

Btk2--28 to 36 inches; light yellowish brown (10YR 6/4) gravelly clay loam, dark yellowish brown (10YR 4/4) moist; weak fine subangular blocky structure; slightly hard, friable, sticky and plastic; few very fine roots; few very fine tubular pores; common thin clay films lining pores; many fine and medium white (10YR 8/2) soft filaments of lime; slightly effervescent; 25 percent pebbles; moderately alkaline; abrupt smooth boundary.

2R--36 inches; hard, fractured andesite.

Type location: Humboldt County, Nevada; approximately 1 mile south of Button Point; about 1,700 feet north and 2,300 feet west of the southeast corner of section 9, T. 36 N., R. 39 E.; (41 degrees, 00 minutes, 29 seconds north latitude and 117 degrees, 35 minutes, 18 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in the late fall, winter and early spring months, dry late May through October.

Soil temperature: 48 to 53 degrees.

Depth to bedrock: 20 to 40 inches.

Depth to lime: 10 to 20 inches.

A horizon:

Value--5 or 6 dry, 3 through 5 moist.
 Chroma--2 or 3.
 Reaction--Neutral or slightly alkaline.

Bt horizons:

Hue--10YR or 7.5YR.
 Value--5 or 6 dry, 4 or 5 moist.
 Chroma--3 or 4.
 Texture--Gravelly clay loam or gravelly clay with more than 30 percent sand.
 Clay content--35 to 50 percent.
 Rock fragments--15 to 35 percent, mainly pebbles.
 Reaction--Neutral or slightly alkaline in noncalcareous upper subhorizon, moderately alkaline or strongly alkaline in calcareous lower subhorizon.
 Consistence--Slightly hard to very hard, dry; friable or firm, moist.

Tusel series

The Tusel series consists of deep and very deep, well drained soils that formed in residuum and colluvium from quartzite, welded tuff, chert and shale with a component of loess high in pyroclastic material. Tusel soils are on mountains and plateaus. Slopes range from 4 to 75 percent. The mean annual precipitation is about 16 inches and the mean annual temperature is about 41 degrees F.

Taxonomic class: Loamy-skeletal, mixed Argic Pachic Cryoborolls

Typical pedon: Tusel very cobbly loam, 50 to 75 percent slopes, in an area of map unit 1140. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 10 percent pebbles, 30 percent cobbles and 1 percent stones.

A1--0 to 7 inches; brown (10YR 5/3) very cobbly 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; common very fine tubular and interstitial pores; 10 percent pebbles, 30 percent cobbles and 1 percent stones; neutral; clear smooth boundary.

A2--7 to 16 inches; brown 10YR 5/3) gravelly

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; common very fine tubular and interstitial pores; 15 percent pebbles; neutral; clear smooth boundary.

A3--16 to 22 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine tubular pores; 35 percent pebbles; neutral; clear smooth boundary.

Bt1--22 to 30 inches; pale brown (10YR 6/3) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; weak medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and few fine roots; common very fine tubular pores; common thin clay films on faces of peds and lining pores; 40 percent pebbles and 10 percent cobbles; neutral; gradual smooth boundary.

Bt2--30 to 46 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, dark yellowish brown (10YR 4/4) moist; weak medium subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and few fine roots; common very fine tubular pores; common thin clay films on faces of peds and lining pores; 45 percent pebbles and 15 percent cobbles; neutral; clear smooth boundary.

2R--46 inches; quartzite bedrock.

Type location: Humboldt County, Nevada; about 1.5 miles northwest of Sonoma Peak; approximately 800 feet west and 2,000 feet south of the northeast corner, section 28, T. 35 N., R. 39 E.; (40 degrees, 52 minutes, 52 seconds north latitude and 117 degrees, 35 minutes, 15 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually moist in the late fall through early summer, dry late July through September.

Soil temperature: 43 to 47 degrees F.

Average summer soil temperature: 58 to 59 degrees F.

Depth to bedrock: 40 to over 80 inches.

Depth to base of Bt horizon: 36 to over 50 inches.

Mollic epipedon thickness: 16 to 22 inches,

includes the upper argillic horizon of some pedons.

Control section:

Clay content--25 to 35 percent.
Rock fragments--50 to 75 percent, mainly pebbles.
Reaction--Slightly acid or neutral.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.
Chroma--2 or 3.

Bt horizons:

Hue--10YR or 7.5YR.
Value--4 through 6 dry, 3 or 4 moist.
Chroma--2 through 4.
Texture--Very gravelly or extremely gravelly sandy clay loam or very gravelly or extremely gravelly clay loam, with 40 to 60 percent sand.
Clay content--25 to 35 percent, when averaged.
Rock fragments--40 to 60 percent pebbles and 10 to 25 percent cobbles and 0 to 10 percent stones
Consistence--Slightly sticky or sticky and slightly plastic or plastic
Structure--Weak to strong subangular blocky or angular blocky. Some pedons have lower subhorizons that are massive.

Tusk series

The Tusk series consists of very deep, well drained soils that formed in colluvium from rhyolite and other volcanic rocks. Tusk soils are on plateaus and mountains. Slopes are 15 to 50 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Fine-loamy, mixed, frigid Pachic Argixerolls

Typical pedon: Tusk gravelly loam, 15 to 50 percent slopes, in an area of map unit 553. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 20 percent pebbles and 3 percent cobbles.

A1--0 to 4 inches; grayish brown (10YR 5/2) gravelly loam, very dark grayish brown (10YR 3/2) moist; moderate fine granular structure;

slightly hard, very friable, slightly sticky and slightly plastic; many very fine roots; many very fine interstitial pores; 20 percent pebbles and 2 percent cobbles; neutral; abrupt wavy boundary.

A2--4 to 13 inches; grayish brown (10YR 5/2) gravelly silt loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine and common medium roots; many very fine tubular and interstitial pores; 15 percent pebbles and 2 percent cobbles; neutral; clear wavy boundary.

Bt1--13 to 21 inches; brown (10YR 5/3) clay loam, dark brown (10YR 3/3) moist; moderate fine and medium subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine and fine and common medium roots; many very fine tubular and interstitial pores; common thin clay films on faces of peds and lining pores; 10 percent pebbles and 1 percent cobbles; slightly alkaline; clear wavy boundary.

Bt2--21 to 29 inches; light yellowish brown (10YR 6/4) gravelly clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine and medium subangular blocky structure; hard, friable, sticky and plastic; common very fine and fine and few medium and coarse roots; common very fine and few fine tubular pores; many moderately thick clay films on faces of peds and lining pores; 20 percent pebbles, 5 percent cobbles and 1 percent stones; slightly alkaline; clear wavy boundary.

Bt3--29 to 40 inches; pale brown (10YR 6/3) gravelly clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; hard, friable, sticky and plastic; common very fine and few fine and medium roots; common very fine tubular and interstitial pores; few thin clay films on faces of peds; 25 percent pebbles, 5 percent cobbles and 1 percent stones; slightly alkaline; clear wavy boundary.

Bt4--40 to 60 inches; pale brown (10YR 6/3) very gravelly clay loam, brown (10YR 4/3) moist; massive; slightly hard, friable, sticky and plastic; few very fine roots common very fine tubular and interstitial pores; few thin clay films on faces of peds; 40 percent pebbles, 10 percent cobbles and 3 percent stones; slightly alkaline.

Type location: Humboldt County, Nevada; in the Snowstorm Mountains; in an unsectionized

area; (41 degrees, 23 minutes, 10 seconds north latitude and 117 degrees, 01 minute, 26 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry from mid July to October.

Soil temperature: 43 to 47 degrees F.

Mollic epipedon thickness: 20 to 35 inches.

Includes the upper part of the argillic horizon.

Solum thickness: 40 to over 60 inches.

Reaction: Neutral or slightly alkaline.

Control section:

Rock fragments--15 to 35 percent, mainly pebbles.

Clay content--27 to 35 percent.

A horizons:

Value--2 or 3 moist.

Chroma--2 or 3.

Bt horizons:

Value--4 through 6 dry.

Chroma--2 through 4.

Texture--The upper part is clay loam and gravelly clay loam, with a mixed average of gravelly clay loam. Lower subhorizons are very gravelly clay loam to extremely cobbly loam.

Udelope series

The Udelope series consists of shallow and very shallow, well drained soils that formed in residuum and colluvium from andesite and other volcanic rocks. Udelope soils are on hills and mountains. Slopes are 4 to 50 percent. The mean annual precipitation is about 18 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Loamy, mixed Lithic Cryoborolls

Typical pedon: Udelope bouldery sandy loam, 15 to 30 percent slopes, in an area of map unit 801. The surface is partially covered with 5 percent cobbles and 1 percent boulders.

Oi--0 to 2 inches; partially decomposed leaf litter.
A1--2 to 4 inches; dark grayish brown (10YR 4/2) bouldery sandy loam, black (10YR 2/1) moist; weak medium subangular blocky structure parting to medium very fine and fine granular;

soft, very friable, nonsticky and nonplastic; many very fine roots; many very fine interstitial pores; 5 percent cobbles and 1 percent boulders; moderately acid; abrupt smooth boundary.

A2--4 to 9 inches; dark grayish brown (10YR 4/2) sandy loam, very dark brown (10YR 2/2) moist; moderate medium subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; common very fine, fine, medium and few coarse roots; common very fine and fine tubular pores; slightly acid; clear smooth boundary.

A3--9 to 12 inches; dark grayish brown (10YR 4/2) sandy loam, dark brown (10YR 3/3) moist; moderate medium and fine subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; common very fine, fine, medium and coarse roots; common very fine and fine tubular pores; few thin clay films lining pores; 3 percent pebbles; slightly acid; clear smooth boundary.

Bw--12 to 18 inches; grayish brown (10YR 5/2) gravelly sandy loam, dark brown (10YR 3/3) moist; moderate medium and coarse subangular blocky structure; slightly hard, very friable, nonsticky and nonplastic; few very fine and fine roots; many very fine, fine and few medium tubular and few very fine interstitial pores; 15 percent pebbles and 5 percent cobbles; neutral; abrupt smooth boundary.

R--18 inches; hard volcanic rock that is highly fractured in the upper 2 inches.

Type location: Humboldt County, Nevada; near Cabin Creek in the Santa Rosa Mountains approximately 100 feet east and 400 feet south of the northwest corner of section 1, T. 44 N., R. 39 E.; (41 degrees, 43 minutes, and 45 seconds north latitude and 117 degrees, 32 minutes, and 20 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually moist, moist in winter and spring, dry in summer and early fall.

Soil temperature: 43 to 47 degrees F.

Average summer soil temperature: 55 to 59 degrees F.

Depth to Bedrock: 8 to 20 inches.

Mollic epipedon: 8 to 20 inches includes the entire profile.

Control section:

Clay content--8 to 18 percent.

Rock fragments--0 to 35 percent.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3 dry, 1 through 3 moist.

Valmy series

The Valmy series consists of very deep, well-drained soils that formed in a thin loess cap high in volcanic ash superimposed over loamy alluvium.

The Valmy soils are on inset fans, fan skirts, basin floors and basin floor remnants. Slopes are 0 to 8 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 51 degrees F.

Taxonomic class: Coarse-loamy, mixed (calcareous) mesic Durorthidic Torriorthents

Typical pedon: Valmy fine sandy loam, 0 to 2 percent slopes, in an area of map unit 600. (Colors are for dry soil unless otherwise noted.)

- A--0 to 3 inches; grayish brown (10YR 5/2) micaceous fine sandy loam, very dark grayish brown (10YR 3/2) moist; weak medium platy structure; soft, very friable, nonsticky and nonplastic; many very fine and few fine roots; many very fine and few fine tubular and many very fine interstitial pores; moderately alkaline; abrupt smooth boundary.
- C--3 to 10 inches; light gray (10YR 7/2) fine sandy loam, dark grayish brown (10YR 4/2) moist; massive; hard, very friable, nonsticky and nonplastic; many very fine and few fine roots; many very fine and few fine tubular and many very fine interstitial pores; very strongly alkaline; abrupt smooth boundary.
- Cqk--10 to 12 inches; light brownish gray (2.5Y 6/2) fine sandy loam, dark grayish brown (2.5Y 4/2) moist; weak medium platy structure; hard, friable, nonsticky and nonplastic; common very fine and few fine roots; many very fine interstitial and few fine tubular pores; many (85 percent) very hard, firm, brittle durinodes; common thin silica films bridging sand grains, few thin silica films in pores; common fine and few medium horizontal lime seams and coatings; strongly effervescent; very strongly alkaline; clear smooth boundary.
- Ck--12 to 20 inches; light gray (2.5Y 7/2) fine sandy loam, high in ash content, grayish brown

(2.5Y 5/2) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common very fine and few fine roots; few very fine tubular and many very fine interstitial pores; lime is disseminated; strongly effervescent; very strongly alkaline; clear smooth boundary.

Cqk1--20 to 26 inches; light brownish gray (2.5Y 6/2) fine sandy loam, light olive brown (2.5Y 5/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common very fine and fine roots; few very fine tubular and many very fine interstitial pores; 5 percent 1 to 2 inch long, extremely hard, very firm, brittle durinodes that are olive brown (2.5Y 4/4) moist; few thin lime coats on durinodes; strongly effervescent; very strongly alkaline; clear wavy boundary.

Cqk2--26 to 37 inches; pale yellow (2.5Y 7/4) sandy loam, olive brown (2.5Y 4/4) moist; massive; hard, friable, nonsticky and nonplastic; few very fine roots; few very fine tubular and many very fine interstitial pores; 45 percent 1 to 3 inch, very hard, firm, brittle durinodes; has weakly silica-cemented masses in pockets; common thin silica films lining pores, bridging sand grains and as discontinuous, randomly oriented laminae; common fine white (10YR 8/2) lime seams; slightly effervescent; very strongly alkaline; clear wavy boundary.

C'k--37 to 43 inches; pale yellow (2.5Y 7/4) stratified sandy loam and gravelly sandy loam, light olive brown (2.5Y 5/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine roots; few very fine tubular and many very fine interstitial pores; many fine white (10YR 8/2) lime filaments and coatings on base of pebbles; slightly effervescent; 15 percent pebbles; very strongly alkaline; abrupt wavy boundary.

2C'--43 to 66 inches; light brownish gray (2.5Y 6/2) gravelly micaceous sand, olive brown (2.5Y 4/4) moist; single grain; loose, nonsticky and nonplastic; few very fine roots; many fine interstitial pores; slightly effervescent; 30 percent pebbles; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 3 miles northeast of Winnemucca, about 1,000 feet east and 1,000 feet south of the northwest corner of section 10 T. 36 N., R. 38 E.; (41 degrees, 00 minutes, 55 seconds north latitude and 117 degrees, 41 minutes, 30 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods in winter and spring, dry from May through November.

Soil temperature: 47 to 53 degrees F.

Depth to Cq horizon: 8 to 20 inches. Durinodes range from 5 to 85 percent by volume in any one horizon but one or more horizons more than 6 inches thick contains more than 25 percent.

Depth to unconformity: 30 to 50 inches, with some pedons deeper than 50 inches to sandy material.

Control section:

Clay content--5 to 15 percent.

Rock fragments--0 to 30 percent, mainly pebbles.

A horizon:

Hue--10YR or 2.5Y. Value--5 or 6 dry, 3 or 4 moist.

Reaction--Moderately alkaline or strongly alkaline.

C horizons:

Hue--10YR or 2.5Y.

Value--5 through 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Mainly fine sandy loam or sandy loam, but includes strata of very fine sandy loam or coarse sandy loam in some pedons.

Durinodes--(where present) Hard to extremely hard, firm or very firm and brittle.

Reaction--Strongly alkaline or very strongly alkaline.

Carbonates--Slightly effervescent through violently effervescent.

2C horizons:

Texture--Gravelly sand or very gravelly sand; substratum phases have textures of silty clay loam below 40 inches.

Clay content--1 to 5 percent.

Rock fragments--20 to 55 percent.

Reaction--Strongly alkaline or very strongly alkaline.

Vanwyper series

The Vanwyper series consists of moderately deep, well drained soils that formed in residuum and colluvium from mixed rock sources. Vanwyper soils are on hills, plateaus, and mountains. Slopes

are 8 to 50 percent. The mean annual precipitation is about 10 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Clayey-skeletal, montmorillonitic, mesic Xerollic Haplargids

Typical pedon: Vanwyper very cobbly loam, 30 to 50 percent slopes, in an area of map unit 944. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 15 percent pebbles, 30 percent cobbles, and 2 percent stones.

A1--0 to 3 inches; pale brown (10YR 6/3) very cobbly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine interstitial pores; 15 percent pebbles, 30 percent cobbles and 2 percent stones; slightly alkaline; abrupt wavy boundary.

A2--3 to 7 inches; pale brown (10YR 6/3) very cobbly loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine interstitial and vesicular pores; 10 percent pebbles, 30 percent cobbles, and 2 percent stones; slightly alkaline; abrupt wavy boundary.

Bt1--7 to 10 inches; pale brown (10YR 6/3) very cobbly clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine and fine roots; many very fine interstitial and tubular pores; common thin clay films lining pores; 20 percent pebbles, 20 percent cobbles and 5 percent stones, slightly alkaline; clear wavy boundary.

Bt2--10 to 27 inches; yellowish brown (10YR 5/4) very cobbly clay, dark yellowish brown (10YR 4/4) moist; strong fine subangular blocky structure; hard, firm, sticky and plastic; common very fine and fine and few medium roots; many very fine interstitial and tubular pores; common thin clay films on faces of peds and lining pores; 30 percent pebbles, 20 percent cobbles and 5 percent stones; slightly alkaline; abrupt wavy boundary.

R--27 inches; basalt bedrock.

Type location: Humboldt County, Nevada; about 1,480 feet west and 1,270 feet north of the

southeast corner of section 34, T. 42 N., R. 41 E.; (41 degrees, 28 minutes, 22 seconds north latitude and 117 degrees, 19 minutes, 48 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in the winter and spring, dry from late June through mid October.

Soil temperature: 47 to 50 degrees F.

Depth to bedrock: 20 to 40 inches.

Control section:

Percent clay--35 to 55 percent.

Reaction--Neutral or slightly alkaline.

Rock fragments--35 to 60 percent dominated by cobbles.

A horizons:

Value--3 or 4 moist.

Chroma--2 through 4.

Bt horizons:

Hue--10YR, 7.5YR or 5YR.

Value--4 through 6 dry, 3 through 5 moist.

Chroma--3 or 4.

Textures --Very cobbly clay loam, very cobbly clay.

Structure--Angular blocky, subangular blocky or prismatic in the lower part.

Other features--Some pedons have a thin coat of carbonates on the undersides of rock fragments.

Walti series

The Walti series consists of moderately deep, well drained soils that formed in residuum and colluvium from rhyolite, andesite, dacite, tuffs and quartzite. Walti soils are on mountains and plateaus. Slopes range from 4 to 50 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Fine, montmorillonitic, frigid Aridic Argixerolls

Typical pedon: Walti cobbly loam, 8 to 30 percent slopes, in an area of map unit 921. (Colors are for dry soil unless otherwise noted.) The soil surface is partially covered with 15 percent pebbles and 15 percent cobbles.

A--0 to 4 inches; grayish brown (10YR 5/2) cobbly loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine, common fine and medium interstitial pores; 15 percent pebbles and 15 percent cobbles; neutral; clear smooth boundary.

Bt1--4 to 8 inches; brown (10YR 5/3) clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; common very fine, fine and medium roots; common very fine, fine and medium tubular pores and many very fine interstitial pores; few thin clay films lining pores; common thin pressure faces; 10 percent pebbles; neutral; abrupt smooth boundary.

Bt2--8 to 14 inches; brown (10YR 5/3) clay, brown (10YR 4/3) moist; moderate fine angular blocky structure; hard, firm, very sticky and plastic; common very fine and fine roots; common very fine, fine and medium tubular pores; common thin clay films lining pores; few thin pressure faces; 10 percent pebbles and 2 percent cobbles; neutral; abrupt wavy boundary.

Bt3--14 to 20 inches; brown (10YR 5/3) gravelly clay, brown (10YR 4/3) moist; moderate fine angular blocky structure; hard, firm, very sticky and very plastic; common very fine and fine roots; common very fine and fine tubular pores; many moderately thick clay films lining pores and common thin clay films on faces of peds; 25 percent pebbles; common weathered rock fragments that are slightly hard, dry, that retain original shape and color; neutral; abrupt wavy boundary.

R--20 inches; hard rhyolite bedrock.

Type location: Humboldt County, Nevada, about 7 miles south of Button Point; approximately 2,200 feet south and 1,000 feet west of the northeast corner, section 10, T. 35 N., R. 39 E.; (40 degrees, 55 minutes, 29 seconds north latitude and 117 degrees, 34 minutes, 08 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry from late June to mid-October.

Soil temperature: 44 to 46 degrees F.

Mollic epipedon thickness: 7 to 17 inches, commonly includes upper part of the argillic horizon.

Depth to bedrock: 20 to 30 inches.

Reaction: Neutral or slightly alkaline.

Control section:

Clay content--40 to 50 percent.

Rock fragments--5 to 25 percent, mainly pebbles.

A horizon:

Hue--7.5YR or 10YR.

Value--4 or 5 dry.

Chroma--2 or 3.

Bt horizons:

Hue--10YR or 7.5YR.

Value--4 or 5 dry, 3 or 4 moist. Some pedons are 6 dry in the lower subhorizon above the bedrock.

Chroma--2 through 4.

Texture--Clay loam or gravelly clay loam with 27 to 35 percent clay and a abrupt lower boundary in the upper subhorizon. Clay or gravelly clay with 50 to 60 percent clay in the lower subhorizons.

Rock fragments--5 to 25 percent, mostly pebbles and cobbles.

Structure--Prismatic or angular blocky; upper subhorizons are subangular blocky in some pedons.

Consistence--Very friable to firm, moist; sticky or very sticky, plastic or very plastic, wet.

Wendane series

The Wendane series consists of very deep, somewhat poorly drained soils that formed in silty alluvium from mixed rocks, loess and volcanic ash. Wendane soils are on alluvial flats and stream terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine-silty, mixed (calcareous), mesic Aeric Halaquepts

Typical pedon: Wendane silt loam, occasionally flooded in an area of map unit 1102. (Colors are for dry soil unless otherwise noted.) The soil surface is covered with a thick white salt crust.

A--0 to 4 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; few fine roots; many very fine and common fine tubular pores; violently effervescent; very strongly alkaline; clear smooth boundary.

C1--4 to 14 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many fine roots; many very fine and few fine tubular pores; violently effervescent; strongly alkaline; clear smooth boundary.

C2--14 to 20 inches; very pale brown (10YR 7/3) silt loam, yellowish brown (10YR 5/4) moist; moderate fine platy structure; slightly hard, friable, slightly sticky and slightly plastic; common fine roots; many very fine and few fine tubular pores; violently effervescent; strongly alkaline; clear smooth boundary.

Cqk1--20 to 35 inches; very pale brown (10YR 7/3) silt loam, yellowish brown (10YR 5/4) moist; few fine prominent brown (7.5YR 4/4) mottles; massive; slightly hard, friable, slightly sticky and slightly plastic; few fine roots; common very fine and few fine tubular pores; 20 percent very hard, very firm and brittle durinodes; lime is disseminated; violently effervescent; strongly alkaline; clear smooth boundary.

Cqk2--35 to 43 inches; very pale brown (10YR 7/3) silt loam, brown (10YR 5/3) moist; few fine prominent brown (7.5YR 4/4) mottles; massive; slightly hard, friable, slightly sticky and slightly plastic; few fine roots; few fine tubular pores; 30 percent very hard, very firm, brittle durinodes; few thin lime coats on durinodes; slightly effervescent; strongly alkaline; clear smooth boundary.

Cq--43 to 60 inches; light gray (2.5Y 7/2) very fine sandy loam, light brownish gray (2.5Y 6/2) moist; massive; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; few very fine interstitial pores; 10 percent pebbles; 30 percent weakly silica cemented lenses that are hard, firm and brittle when wet; very strongly alkaline.

Type location: Humboldt County, Nevada; in an area of Pumpernickel Valley; approximately 1,500 feet south and 200 feet west of the

northeast corner of section 35, T. 35 N., R. 41 E.; (40 degrees, 51 minutes, 58 seconds north latitude and 117 degrees, 19 minutes, 13 seconds west longitude.)

Range in characteristics:

Soil moisture: Saturated within depths of 28 to 40 inches during the spring of most years. Dry mid-summer through mid-winter moist in mid-winter, spring, and early summer. Apparent seasonal water table is between 2.5 and 4 feet between February and July. Drained phases are recognized.

Soil temperature: 47 to 52 degrees F.

Mineralogy: Mixed, but has a strong influence from volcanic ash and other pyroclastic materials.

Depth to Cqk horizon: 11 to 20 inches.

Depth to high chroma mottles: 13 to 27 inches.

Salts: These soils are normally strongly saline affected in their upper profile, and free to slightly affected in the lower profile.

Exchangeable sodium: 15 to 70 percent in half or more of the upper 20 inches and decreases with depth.

Profile reaction: Moderately alkaline through very strongly alkaline.

Other features: Unconformable stratified gravelly sand or very gravelly sand are common in some pedons below 40 inches. Some pedons have Cq horizons that are noneffervescent below 40 inches.

Control section:

Clay content--20 to 30 percent, when mixed.

A horizon:

Value--6 or 7 dry, 4 through 6 moist.

Chroma--1 through 4.

C horizons:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 4 through 7 moist.

Chroma--1 through 4.

Texture--Stratified very fine sandy loam, silt loam, silty clay loam, and clay loam.

Structure--Thin platy or is massive.

Other features--Strata of volcanic ash that are 4 to 10 inches thick are common at some depth between 13 and 36 inches.

Cq and Cqk horizons:

Thickness--13 to over 30 inches, when combined.

Cementation--20 to 35 percent weakly or strongly cemented durinodes in a friable matrix and up to 30 percent discontinuous weak silica cementation in any one horizon.

Weso series

The Weso series consists of very deep, well drained soils that formed in alluvium from mixed rock sources, with a loess mantle high in volcanic ash. The Weso soils are on relic lagoons, inset fans, fan remnants, and fan skirts. Slopes are 0 to 8 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Coarse-loamy, mixed, mesic Duric Camborthids

Typical pedon: Weso very fine sandy loam, 2 to 4 percent slopes, is found in an area of map unit 1620. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; light gray (10YR 7/2) very fine sandy loam, grayish brown (10YR 5/2) moist; weak medium platy structure; slightly hard, friable, nonsticky and slightly plastic; few very fine roots; many very fine and few fine vesicular pores; moderately alkaline; abrupt smooth boundary.

A2--2 to 5 inches; light gray (10YR 7/2) loam, dark grayish brown (10YR 4/2) moist; weak thin platy structure; hard, friable, slightly sticky and slightly plastic; common very fine and few fine roots; many very fine vesicular pores; moderately alkaline; abrupt smooth boundary.

Bw--5 to 11 inches; very pale brown (10YR 7/3) fine sandy loam, brown (10YR 4/3) moist; weak fine subangular blocky structure; hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and few fine tubular pores; moderately alkaline; abrupt wavy boundary.

Bqk1--11 to 16 inches; very pale brown (10YR 7/3) fine sandy loam, brown (10YR 5/3) moist; weak thick platy structure; very hard, firm, brittle when wet becoming nonsticky and slightly plastic after prolonged rubbing; common very fine roots; many very fine tubular and very fine and fine interstitial pores; few fine faint

horizontal white (10YR 8/2) lime filaments; slightly effervescent; continuous brittle plates about 1/4 inch thick with slightly harder material between plates; moderately alkaline; abrupt wavy boundary.

Bqk2--16 to 26 inches; very pale brown (10YR 7/3) very fine sandy loam, brown (10YR 5/3) moist; weak thick platy structure; hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; few very fine tubular and many very fine interstitial pores; common fine faint white (10YR 8/2) seams of lime between plates; strongly effervescent; slightly effervescent matrix; many silica cemented lenses that are very hard, firm and brittle when wet; many silica cemented strongly alkaline; clear wavy boundary.

2Bk--26 to 47 inches; very pale brown (10YR 7/3) gravelly fine sandy loam, brown (10YR 5/3) moist; massive; soft, very friable; nonsticky and nonplastic; many very fine and fine roots; many very fine interstitial pores; lime is disseminated; strongly effervescent; 15 percent fine pebbles; strongly alkaline; clear wavy boundary.

3C1--47 to 53 inches; very pale brown (10YR 7/3) very gravelly loamy sand, brown (10YR 5/3) moist; massive; soft, very friable, nonsticky and nonplastic; common very fine roots; many very fine interstitial pores; slightly effervescent; 35 percent pebbles; moderately alkaline; clear wavy boundary.

3C2--53 to 59 inches; very pale brown (10YR 7/4) gravelly sandy loam, dark yellowish brown (10YR 4/4) moist; weak thin platy structure; hard, friable, nonsticky and nonplastic; few very fine roots; many very fine interstitial pores; 25 percent pebbles; moderately alkaline; clear wavy boundary.

4C3--59 to 65 inches; very pale brown (10YR 7/3) fine sandy loam, brown (10YR 5/3) moist; massive; soft, very friable, nonsticky and nonplastic; few very fine roots; many very fine interstitial pores; 10 percent pebbles; slightly effervescent; strongly alkaline.

Type location: Humboldt County, Nevada; approximately 2 miles northwest of Golconda; about 300 feet east and 150 feet south of the northwest corner of section 30, T. 36 N., R. 40 E.; (40 degrees, 58 minutes, 27 seconds north latitude and 117 degrees, 31 minutes, 22 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist for short periods in winter and spring, dry from late May through November.

Soil temperature: 47 to 53 degrees F.

Depth to base of Bw horizon and upper boundary of silica cementation: 10 to 18 inches.

Other features: Some pedons are underlain by skeletal material below depths of 40 inches.

Control section:

Clay content--5 to 15 percent.

Rock fragments--0 to 25 percent, mainly pebbles.

A horizons:

Value--6 or 7 dry, 3 through 5 moist.

Chroma--2 or 3.

Reaction--Moderately alkaline through very strongly alkaline.

Bw horizon:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Textures--Dominantly fine sandy loam, very fine sandy loam or loam. Some pedons include minor strata of sandy loam, coarse sandy loam, or silt loam.

Clay content--5 to 15 percent.

Reaction--Moderately alkaline through very strongly alkaline.

Rock fragment--0 to 15 percent

Other features--The Bw is noncalcareous.

Bqk horizons:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 or 3.

Textures--Dominantly fine sandy loam, very fine sandy loam or loam. Some pedon include minor strata of sandy loam, coarse sandy loam, or silt loam.

Cementation--Ranges from continuous brittle matrix to several weakly cemented plates up to 1 inch thick with firm and brittle or friable material between plates. Subhorizons in some pedons have durinodes in a friable matrix.

Reaction--Moderately alkaline through very strongly alkaline.

C horizons:

Texture--Stratified very gravelly loamy sand to

fine sandy loam.
 Rock fragments--Averages 0 to 20 percent.
 Reaction--Moderately alkaline through very strongly alkaline.
 Carbonates--Noneffervescent to violently effervescent.

Westbutte series

The Westbutte series consists of moderately deep, well drained soils that formed in colluvium from volcanic rocks and ash. Westbutte soils are on mountains. Slopes are 15 to 75 percent. The mean annual precipitation is about 14 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid Pachic Haploxerolls

Typical pedon: Westbutte stony loam, 15 to 50 percent slopes, in an area of map unit 1530. (Colors are for dry soil unless otherwise noted.) The surface is partially covered with 15 percent pebbles, 10 percent cobbles, and 2 percent stones.

A--0 to 4 inches; very dark grayish brown (10YR 3/2) stony loam, black (10YR 2/1) moist; weak fine granular structure; soft, very friable, slightly sticky and slightly plastic; many very fine and few fine roots; many very fine and few fine interstitial pores; 15 percent pebbles, 10 percent cobbles, and 2 percent stones; neutral; clear smooth boundary.

AB--4 to 10 inches; very dark grayish brown (10YR 3/2) very cobbly loam, black (10YR 2/1) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine interstitial and few very fine tubular pores; 15 percent pebbles and 20 percent cobbles; neutral; clear smooth boundary.

Bw1--10 to 16 inches; dark grayish brown (10YR 4/2) very cobbly loam, very dark brown (10YR 2/2) moist; moderate fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine interstitial and few very fine tubular pores; 20 percent pebbles and 20 percent cobbles; neutral; clear smooth boundary.

Bw2--16 to 25 inches; brown (10YR 4/3) very cobbly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; soft, friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine, few fine and medium tubular pores; 20 percent pebbles and 20 percent cobbles; neutral; clear smooth boundary.

Bw3--25 to 33 inches; brown (10YR 4/3) very cobbly loam, dark brown (10YR 3/3) moist; weak fine subangular blocky structure parting to moderate fine granular; soft, friable, slightly sticky and slightly plastic; common very fine roots; common very fine and few fine tubular pores and common very fine interstitial pores; 25 percent pebbles and 25 percent cobbles; neutral; abrupt wavy boundary.

R--33 inches; hard fractured volcanic rock.

Type location: Humboldt County, Nevada; about 12 miles northwest of the Kings River Ranch headquarters; about 1,200 feet south and 400 feet east of the northwest corner of section 1, T. 47 N., R. 32 E.; (41 degrees, 59 minutes, 37 seconds north latitude and 118 degrees, 20 minutes, 28 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually moist and are dry for 60 to 90 consecutive days after the summer solstice.

Soil temperature: 40 to 47 degrees F.

Depth to bedrock: 20 to 40 inches.

Mollic epipedon: 20 to 40 inches.

Control section:

Clay content--18 to 30 percent

Rock fragments--35 to 70 percent gravel, cobbles, and stones.

Reaction--Neutral or slightly alkaline.

A horizon:

Value--3 through 5 dry, 2 or 3 moist.

Chroma--1 or 2 dry and moist.

Volcanic ash--0 to 20 percent pumiceous ash.

AB horizon:

Value--3 through 5 dry, 2 or 3 moist.

Bw horizon:

Hue--10YR or 7.5YR.

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3 moist 2 through 4 dry.

Structure--Subangular blocky or granular

structure or both.

Texture--Extremely cobbly clay loam, extremely cobbly loam, very cobbly clay loam, very stony loam or very cobbly loam.

Rock fragments--20 to 50 percent cobbles, 0 to 20 percent stones and 5 to 30 percent gravel.

Whirlo series

The Whirlo series consists of very deep, well drained soils that formed in mixed alluvium with a component of loess. Whirlo soils are on inset fans. Slopes are 2 to 8 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Loamy-skeletal, mixed, mesic Typic Camborthids

Typical pedon: Whirlo silt loam, 2 to 8 percent slopes, in an area of map unit 823. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; pale brown (10YR 6/3) silt loam, dark brown (10YR 3/3) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; many very fine vesicular pores; 10 percent pebbles; moderately alkaline; abrupt smooth boundary.

A2--2 to 8 inches; light gray (10YR 7/2) silt loam, brown (10YR 4/3) moist; moderate thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine vesicular pores; moderately alkaline; clear smooth boundary.

Bw--8 to 14 inches; pale brown (10YR 6/3) silt loam, brown (10YR 4/3) moist; moderate fine and medium subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine tubular pores; 5 percent pebbles; moderately alkaline; gradual smooth boundary.

2Bqk1--14 to 43 inches; very pale brown (10YR 7/3) very gravelly fine sandy loam, dark yellowish brown (10YR 4/4) moist; massive; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine and fine tubular pores; 10 percent durinodes and weakly silica cemented masses; common fine soft filaments of lime;

strongly effervescent; 40 percent pebbles and 5 percent cobbles; strongly alkaline; clear wavy boundary.

2Bqk2--43 to 60 inches; very pale brown (10YR 7/3) stratified very gravelly fine sandy loam to extremely gravelly coarse sandy loam with thin strata of extremely gravelly loamy sand; dark yellowish brown (10YR 4/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; few very fine, fine and medium roots; many very fine, fine and medium interstitial pores; discontinuous weak silica cementation; common thin lime and silica pendants on rock fragments; strongly effervescent; 60 percent pebbles and 10 percent cobbles; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 2 miles west of Golconda; about 2,600 feet north and 1,000 feet west of the southeast corner of section 36, T. 36 N., R. 39 E.; (40 degrees, 57 minutes, 11 seconds north latitude and 117 degrees, 31 minutes, 37 seconds west longitude.)

Range in characteristics:

Soil moisture: Moist in winter and spring, dry mid-May through November.

Soil temperature: 47 to 53 degrees F.

Depth to 2Bk horizon: 10 to 20 inches.

Control section:

Clay content--5 to 15 percent.

Rock fragments--Average 35 to 70 percent, mainly pebbles

A horizons:

Value--6 or 7 dry, 3 or 4 moist.

Chroma--2 or 3.

Reaction--Neutral through moderately alkaline.

Bw horizon:

Value--6 or 7 dry, 3 or 4 moist.

Chroma--2 or 3.

Texture--Gravelly sandy loam, fine sandy loam, very fine sandy loam, silt loam or gravelly loam.

Rock fragments--0 to 30 percent pebbles.

Structure--Subangular blocky prismatic, or it is massive.

Reaction--Neutral through moderately alkaline.

Consistence--Soft or slightly hard, dry; very friable or friable, moist; nonsticky or slightly sticky and nonplastic or slightly plastic, wet.

2Bk and 2Bqk horizon:

Hue--10YR or 2.5Y.

Value--6 through 8 dry, 3 through 6 moist.

Chroma--2 through 4.

Texture--Stratified very gravelly loam to extremely gravelly coarse sandy loam. Thin strata of extremely gravelly loamy sand are in the lower part of some pedons.

Rock fragments--35 to 75 percent, mainly pebbles with some cobbles and stones.

Reaction--Moderately alkaline or strongly alkaline.

Carbonates--Slightly effervescent to violently effervescent.

Other features--Up to 10 percent weak durinodes common in some subhorizons.

Wholan series

The Wholan series consists of very deep, well drained soils that formed in a loess mantle over silty alluvium from mixed rock sources. Wholan soils are on inset fans, fan skirts, alluvial flats, and fan remnants. Slopes are 0 to 4 percent. The mean annual precipitation is about 7 inches and the mean annual temperature is about 49 degrees F.

Taxonomic class: Coarse-silty, mixed, mesic Typic Camborthids

Typical pedon: Wholan very fine sandy loam, 0 to 2 percent slopes, in an area of map unit 1020. (Colors are for dry soil unless otherwise noted.)

A1--0 to 1 inch; pale brown (10YR 6/3) very fine sandy loam, brown (10YR 5/3) moist; moderate very thin platy structure; soft, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine and fine vesicular pores; slightly alkaline; abrupt smooth boundary.

A2--1 to 6 inches; pale brown (10YR 6/3) silt loam, brown (10YR 5/3) moist; moderate very thin platy structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; many very fine and fine vesicular pores; slightly alkaline; clear smooth boundary.

Bw--6 to 14 inches; light yellowish brown (10YR 6/4) silt loam, yellowish brown (10YR 5/4) moist; weak medium and fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; few very fine roots; common very fine tubular pores; moderately alkaline; clear smooth boundary.

Bk1--14 to 24 inches; light yellowish brown (10YR 6/4) silt loam, yellowish brown (10YR 5/4) moist; massive; soft, very friable, slightly sticky and slightly plastic; common very fine and fine roots; common very fine tubular pores; few fine soft filaments of lime; strongly effervescent; moderately alkaline; gradual smooth boundary.

Bk2--24 to 60 inches; light yellowish brown (10YR 6/4) silt loam, yellowish brown (10YR 5/4) moist; massive; soft, very friable, slightly sticky and slightly plastic; common very fine roots; common very fine tubular pores; common fine soft filaments of lime; strongly effervescent; strongly alkaline

Type location: Humboldt County, Nevada; approximately 15 miles southwest of Valmy in Buffalo Valley; about 850 feet east of the northwest corner of section 5, T. 32 N., R. 42 E.; (40 degrees, 40 minutes, 59 seconds north latitude and 117 degrees, 16 minutes, 44 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry late May through October.

Soil temperature: 47 to 53 degrees F.

Depth to Bk horizon: 11 to 24 inches.

Reaction: Slightly alkaline to very strongly alkaline, increasing with depth.

Salt and sodium: These soils are free or slightly salt and sodium affected to depths of 30 inches, and moderately or strongly affected below this depth.

Control section:

Clay content--5 to 15 percent.

A horizons:

Value--5 through 7 dry, 3 through 5 moist (5 dry and 3 moist in the A1 horizon only.)

Chroma--2 through 4.

Carbonates--Noneffervescent or slightly effervescent.

Bw horizon:

Value--6 or 7 dry, 4 or 5 moist.

Chroma--2 through 4.

Texture--Silt loam, very fine sandy loam with thin strata of loam or fine sandy loam in some pedons.

Structure--Weak fine to coarse subangular blocky, medium or coarse prismatic.

Consistence--Soft or slightly hard dry; nonsticky or slightly sticky and nonplastic or slightly plastic, wet.

Bk horizons:

Value--6 through 8 dry, 4 through 6 moist.

Chroma--2 to 4.

Consistence--Nonsticky or slightly sticky and nonplastic or slightly plastic, wet.

Carbonates--Few to many, fine or medium veins and soft masses of lime in Bk horizons.

Wieland series

The Wieland series consist of very deep, well drained soils that formed in alluvium from mixed rock sources with a component of loess and volcanic ash. Wieland soils are on fan remnants and plateaus. Slopes are 0 to 30 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 48 degrees F.

Taxonomic class: Fine, montmorillonitic, mesic Durixerollic Haplargids

Typical pedon: Wieland very fine sandy loam, 2 to 8 percent slopes, in an area of map unit 370. (Colors are for dry soil unless otherwise noted)

A1--0 to 4 inches; light brownish gray (10YR 6/2) very fine sandy loam, dark brown (10YR 3/3) moist; moderate thin and medium platy structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine vesicular pores; slightly alkaline; abrupt smooth boundary.

A2--4 to 8 inches; pale brown (10YR 6/3) very fine sandy loam, dark brown (10YR 3/3) moist; moderate medium platy structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine interstitial and common very fine tubular pores; slightly alkaline; clear smooth boundary.

BA--8 to 10 inches; pale brown (10YR 6/3) clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, sticky and plastic; many very fine, common fine and medium roots; common very fine tubular and interstitial pores; 5 percent pebbles; slightly alkaline; clear wavy boundary.

Bt--10 to 17 inches; pale brown (10YR 6/3) clay,

brown (10YR 4/3) moist; moderate fine and medium prismatic structure; hard, firm, very sticky and very plastic; common very fine and fine and few medium roots; common very fine tubular pores; common moderately thick clay films coating faces of peds and lining pores; 5 percent pebbles; moderately alkaline; clear wavy boundary.

Bqk1--17 to 26 inches; very pale brown (10YR 7/3) gravelly sandy clay loam, yellowish brown (10YR 5/4) moist; massive; slightly hard, friable, nonsticky and slightly plastic; common very fine and fine roots; common very fine tubular and interstitial pores; 35 percent weakly silica cemented nodules; common fine soft masses of lime; strongly effervescent; 20 percent pebbles; strongly alkaline; abrupt smooth boundary.

Bqk2--26 to 33 inches; very pale brown (10YR 8/3) gravelly sandy clay loam, light yellowish brown (10YR 6/4) moist; massive; hard, firm, and brittle; few very fine, fine and medium roots; few very fine interstitial pores; common thin silica and lime coats on pebbles; violently effervescent; 15 percent pebbles; continuous brittle matrix; moderately alkaline; clear wavy boundary.

Bqk3--33 to 54 inches; very pale brown (10YR 8/3) gravelly sandy loam, light yellowish brown (10YR 6/4) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common very fine and fine and few medium roots; many very fine interstitial pores; common thin silica and lime coatings on pebbles; violently effervescent; 15 percent pebbles; strongly alkaline; clear smooth boundary.

Bqk4--54 to 60 inches; white (10YR 8/1) gravelly sandy loam, pale brown (10YR 6/3) moist; massive; slightly hard, very friable, nonsticky and nonplastic; common very fine, fine and medium roots; common very fine interstitial pores; 25 percent weak brittle matrix; violently effervescent; 20 percent pebbles; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 27 miles east of the town of Paradise Valley; about 1,750 feet west and 2,100 feet south of the northeast corner of section 2, T. 41 N., R. 44 E.; (41 degrees, 28 minutes, 53 seconds north latitude and 117 degrees, 00 minutes, 53 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist from mid fall through spring dry summer through fall.

Soil temperature: 47 to 52 degrees F.

Depth to continuous brittle Bqk horizons: 19 to 30 inches.

Depth to base of Bt horizon: 17 to 30 inches.

Other features: Gravelly substratum phases are recognized that have variegated colored Bqk horizons with textures of very gravelly loamy sand at a depth of 40 or more inches. Some pedons have thin BA horizons.

Control section:

Clay content--40 to 55 percent, when mixed.

Rock fragments--5 to 35 percent pebbles, when mixed.

A horizons:

Value--5 or 6 dry.

Chroma--2 or 3.

Reaction--Slightly alkaline or moderately alkaline.

BA horizon:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3.

Structure--Weak or moderate very fine to medium subangular blocky or prismatic.

Consistence--Very friable or friable moist, sticky or very sticky and plastic or very plastic wet.

Reaction--Slightly alkaline or moderately alkaline.

Bt horizon:

Value--5 through 7 dry, 3 through 5 moist.

Chroma--2 through 4 dry, and 3 or 4 moist.

Clay content--40 to 55 percent, when mixed, some pedons have subhorizons with up to 60 percent clay.

Rock fragments--5 to 35 percent pebbles, when mixed.

Structure--Weak or moderate, fine to coarse prismatic or very fine to medium angular blocky.

Other features--Some pedons are slightly effervescent to strongly effervescent and commonly have lime filaments in the lower Bt horizons.

Bqk horizons:

Hue--10YR, 7.5YR or 2.5Y.

Value--6 through 8 dry, 4 through 6 moist.

Chroma--1 through 6.

Texture--Clay loam, sandy clay loam, loam. Rock fragments--5 to 35 percent, mainly pebbles.

Consistence--Slightly hard to very hard dry, very friable to firm moist; nonsticky or slightly sticky and nonplastic or slightly plastic, wet.

Effervescence--Slightly effervescent to violently effervescent.

Cementation--Some pedons have thin discontinuous brittle Bkq subhorizons above the continuously brittle horizon. Horizons with continuous brittle matrix have firm consistence when moist.

Gypsum--Is absent in the lower part of some pedons.

Relict mottles--Present in many pedons at any depth below 30 inches.

Reaction--Moderately alkaline to strongly alkaline.

Wiskan series

The Wiskan series consists of moderately deep, well drained soils that formed in a thin loess layer over residuum and colluvium from chert, argillite and other mixed rocks. Wiskan soils are on mountains. Slopes are 30 to 50 percent. Mean annual precipitation is about 12 inches and the mean annual temperature is about 44 degrees F.

Taxonomic class: Loamy-skeletal, mixed frigid Xerollic Haplargids

Typical pedon: Wiskan very gravelly loam; 30 to 50 percent slope, is located in an area of map unit 701. (Colors are for a dry soil unless otherwise noted.) The soil surface is partially covered with 35 percent pebbles and 1 percent cobbles.

A1--0 to 2 inches; light brownish gray (10YR 6/2) very gravelly loam, dark grayish brown (10YR 4/2) moist; strong thick platy structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine roots; many very fine, common fine and few medium vesicular pores; 35 percent pebbles and 1 percent cobbles; neutral; abrupt smooth boundary.

A2--2 to 7 inches; light brownish gray (10YR 6/2) very gravelly loam, dark grayish brown (10YR 4/2) moist; weak thin platy structure; soft; very friable, slightly sticky and slightly plastic; many

very fine and common fine roots; common very fine tubular pores; 35 percent pebbles; neutral; clear wavy boundary.

- BA**--7 to 11 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; many very fine and few fine roots; common very fine tubular pores; 30 percent pebbles; neutral; clear smooth boundary.
- Bt1**--11 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 few fine tubular pores; few thin clay films coating faces of peds and lining pores; 40 percent pebbles and 5 percent cobbles; neutral; clear smooth boundary.
- Bt2**--16 to 19 inches; light yellowish brown (10YR 6/4) very gravelly clay loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; hard, firm, sticky and plastic; common very fine and few fine roots; many very fine and few fine tubular pores; common thin clay films coating faces of peds and lining pores; 45 percent pebbles and 10 percent cobbles; slightly alkaline; clear smooth boundary.
- Btk**--19 to 26 inches; light yellowish brown (10YR 6/4) extremely gravelly clay loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; hard, firm, sticky and plastic; common very fine roots; common very fine tubular pores; many thin clay films on rocks and lining pores; few thin lime pendants on rock fragments; 55 percent pebbles and 10 percent cobbles; slightly alkaline; abrupt wavy boundary.
- R**--26 inches; hard fractured chert.

Type location: Humboldt County, Nevada; approximately 17 miles southeast of Winnemucca; about 300 feet east and 2,100 feet south of the northwest corner of section 19, T. 35 N., R. 41 E.; (40 degrees, 53 minutes, 37 seconds north latitude and 117 degrees, 24 minutes, 49 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in winter and spring, dry in mid-July through October.
Soil temperature: 44 to 47 degrees F.

Depth to bedrock: 20 to 40 inches.

Control section:

Clay content--25 to 35 percent

A horizons:

Value--5 or 6 dry, 3 or 4 moist.

Chroma--2 or 3 dry or moist.

Reaction--Neutral through moderately alkaline.

Other features--Horizons having mollic colors lack the required thickness for a mollic epipedon.

BA horizons:

Value 5 or 6 dry, 4 or 5 moist

Chroma--2 or 3.

Consistence--Very friable or friable, moist.

Reaction--Neutral or slightly alkaline.

Rock fragment--15 to 30 percent.

Bt horizons:

Hue--7.5YR or 10YR.

Value--5 or 6 dry, 3 through 5 moist.

Chroma--3 through 6.

Texture--Very gravelly clay loam, very gravelly loam and extremely gravelly clay loam.

Clay content--25 to 35 percent.

Rock fragments--45 to 65 percent, mainly pebbles.

Structure--Subangular blocky or prismatic.

Secondary lime--None to few fine, filaments or threads, thin coats on some to all rock fragments. Some pedons lack lime in the upper Bt horizons.

Consistence--Slightly sticky or sticky and slightly plastic or plastic, wet.

Effervescence--Noneffervescent to slightly effervescent matrix in lower subhorizons.

Reaction--Slightly alkaline or moderately alkaline.

Xine series

The Xine series consists of moderately deep, well drained soils that formed in residuum and colluvium from dolomite, limestone, and calcareous shale. Xine soils are on mountains. Slopes are 30 to 75 percent. The mean annual precipitation is about 13 inches and the mean annual temperature is about 43 degrees F.

Taxonomic class: Loamy-skeletal, mixed, frigid
 Aridic Calcixerolls

Typical pedon: Xine gravelly loam, 50 to 75 percent slopes, located in an area of map unit 954. (Colors are for a dry soil unless otherwise noted.) The soil surface is partially covered with 25 percent pebbles and 5 percent cobbles.

A1--0 to 3 inches; grayish brown (10YR 5/2) gravelly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure; slightly hard, very friable, slightly sticky and slightly plastic; common very fine and few fine roots; common very fine and fine vesicular and tubular pores; slightly effervescent; 25 percent pebbles and 5 percent cobbles; slightly alkaline; abrupt smooth boundary.

A2--3 to 8 inches; brown (10YR 5/3) gravelly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure parting to moderate fine granular; soft, very friable, slightly sticky and slightly plastic; many very fine and common fine and medium roots; common very fine and fine tubular pores; slightly effervescent; 30 percent pebbles; moderately alkaline; clear smooth boundary.

A3--8 to 11 inches; brown (10YR 5/3) very gravelly loam, dark brown (10YR 3/3) moist; moderate fine subangular blocky structure parting to moderate fine granular; soft, very friable, slightly sticky and slightly plastic; common very fine, fine and medium roots; common very fine and fine tubular and few very fine and fine interstitial pores; slightly effervescent; 35 percent pebbles; moderately alkaline; clear smooth boundary.

Bk1--11 to 16 inches; light yellowish brown (10YR 6/4) very cobbly loam, dark yellowish brown (10YR 3/4) moist; weak fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common very fine and fine and few medium and coarse roots; common very fine interstitial pores; common thin to moderately thick lime pendants on rock fragments; violently effervescent; 25 percent pebbles, 30 percent cobbles and 2 percent stones; moderately alkaline; clear smooth boundary.

Bk2--16 to 24 inches; light yellowish brown (10YR 6/4) very cobbly loam, dark yellowish brown (10YR 3/4) moist; massive; soft, very friable, nonsticky and slightly plastic; common very fine, fine and medium and few coarse roots; common very fine interstitial pores; many thin to moderately thick lime pendants on rock fragments; violently effervescent; 15 percent

pebbles, 35 percent cobbles and 5 percent stones; moderately alkaline; abrupt irregular boundary.

Cr--24 inches; fractured dolomite; common thin lime coatings in fractures and capping rock; common roots in cracks in the upper inch.

Type location: Humboldt County, Nevada; approximately 7 miles south of Winnemucca; about 2,600 feet west and 200 feet north of the southeast corner of section 33, T. 35 N., R. 38 E.; (40 degrees, 51 minutes, 30 seconds north latitude and 117 degrees, 42 minutes, 29 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist in late fall through early summer, dry mid summer through mid fall.

Soil temperature: 44 to 46 degrees F.

Mollic epipedon thickness: 7 to 14 inches.

Depth to paralithic contact: 20 to 40 inches.

Depth to calcic horizon: 7 to 25 inches.

Other features: Secondary lime increases with depth.

Control section:

Clay content--10 to 18 percent.

Rock fragments--35 to 60 percent, mainly cobbles.

A horizons:

Value--4 or 5 dry, 2 or 3 moist, some pedons have thin A1 horizons with dry value of 6.

Chroma--2 or 3.

Reaction--Slightly alkaline or moderately alkaline.

Bk horizons:

Value--5 through 7 dry, 3 through 5 moist.

Chroma--3 or 4.

Texture--Very cobbly loam or very cobbly sandy loam.

Calcium carbonate equivalent (less than 20 millimeter fraction)--25 to 40 percent.

Reaction--Moderately alkaline or strongly alkaline.

Structure--Subangular blocky or is massive.

Consistence--Soft or slightly hard dry,

Xipe series

The Xipe series consists of very deep, very poorly drained soils that formed in mixed alluvium with

some influence from loess and volcanic ash. The Xipe soils are on stream terraces. Slopes are 0 to 2 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Fine-silty over sandy or sandy-skeletal, mixed, mesic Fluvaquentic Endoaquolls

Typical pedon: Xipe silt loam, in an area of map unit 710. (Colors are for dry soil unless otherwise noted.)

A1--0 to 4 inches; dark grayish brown (10YR 4/2) silt loam, very dark brown (10YR 2/2) moist; moderate medium platy structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine tubular pores; slightly effervescent, moderately alkaline; clear smooth boundary.

A2--4 to 13 inches; grayish brown (10YR 5/2) silty clay loam, very dark grayish brown (10YR 3/2) moist, few fine distinct light olive brown (2.5Y 5/4) mottles, moderate thick platy structure; slightly hard, friable, sticky and slightly plastic; many very fine and fine roots; common very fine and fine tubular and common very fine and fine interstitial pores; slightly effervescent; moderately alkaline; clear smooth boundary.

AC--13 to 24 inches; light brownish gray (10YR 6/2) silt loam, very dark grayish brown (10YR 3/2) moist; few fine distinct light olive brown (2.5Y 5/4) mottles; moderate thin platy structure; soft, friable, sticky and slightly plastic; common very fine and fine roots; common very fine and fine tubular pores; moderately alkaline; clear wavy boundary.

2C--24 to 60 inches; light brownish gray (2.5Y 6/2) stratified gravelly loamy sand to very gravelly loamy sand, dark grayish brown (2.5Y 4/2) moist; common medium distinct olive yellow (2.5Y 6/6) mottles; single grain; loose, nonsticky and nonplastic; few very fine and fine roots in the upper part of the horizon; very fine and fine interstitial pores; 25 percent pebbles and 5 percent cobbles; slightly effervescent; slightly alkaline.

Type location: Humboldt County, Nevada; about 3 miles north of Paradise Valley; about 630 feet west and 2,000 feet south of the northeast corner of section 11, T. 42 N., R. 39 E.; (41 degrees, 32 minutes, 11 seconds north latitude

and 117 degrees, 32 minutes, 26 seconds west longitude.)

Range in characteristics:

Soil moisture: Saturated at some depth between the soil surface and 18 inches for at least one month during most years, mainly during late winter and spring. Summer and fall months the depth to water table is 36 to 60 inches. Drained phases are recognized.

Soil temperature: 47 to 52 degrees F.

Mollic epipedon thickness: 10 to 24 inches.

Control section:

Clay content--Upper part is 18 to 35 percent and the lower part is up to 5 percent.

Texture--silt loam or silty clay loam in the upper part; lower part is stratified loamy sand to extremely gravelly coarse sand.

Rock fragments--Upper part is up to 5 percent and the lower part averages 15 to 35 percent with any one strata having up to 75 percent, mainly pebbles.

Depth to contrasting textures--15 to 35 inches.

A and AC horizons:

Hue--10YR or 2.5Y

Value--3 through 6 dry, 2 or 3 moist ;color value 6, dry is below 10 inches.

Chroma--1 or 2.

Reaction--Neutral through moderately alkaline.

Effervescence--None to slight in the upper part none in the lower part below 14 inches

Mottles--Common in the lower subhorizons, range from few to many, fine to coarse and are faint or distinct.

Gypsum--Is absent in many pedons.

Other features--Buried A horizon is common in most pedons.

C horizon:

Hue--10YR or 2.5Y

Value--5 or 6 dry, 3 or 4 moist.

Chroma--1 or 2.

Other features--Some pedons are slightly effervescent.

Mottles--Few to many, fine to very coarse and faint or distinct.

Zevadez series

The Zevadez series consists of very deep, well

drained soils that formed in alluvium from mixed rock sources with a component of loess and volcanic ash. The Zevadez soils are on fan remnants and plateaus. Slopes are 0 to 15 percent. The mean annual precipitation is about 9 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Fine-loamy, mixed, mesic Durixerollic Haplargids

Typical pedon: Zevadez loam, 4 to 15 percent slopes in an area of map unit 962. (Colors are for dry soil unless otherwise noted.)

A1--0 to 3 inches; pale brown (10YR 6/3) loam, dark brown (10YR 3/3) moist; moderate medium platy structure; slightly hard, very friable, slightly sticky and slightly plastic; many very fine and common fine roots; many very fine and fine vesicular pores; 2 percent pebbles; slightly alkaline; abrupt smooth boundary.

A2--3 to 9 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine and fine roots; many very fine and fine interstitial and tubular pores; 5 percent pebbles; slightly alkaline; abrupt smooth boundary.

Bt1--9 to 15 inches; pale brown (10YR 6/3) loam, brown (10YR 4/3) moist; moderate fine 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 tubular pores; few thin clay films lining pores; 5 percent pebbles; slightly alkaline; abrupt smooth boundary.

Bt2--15 to 20 inches; light yellowish brown (10YR 6/4) clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; hard, friable, sticky and plastic; common very fine and fine and few medium roots; many very fine and fine tubular pores; common thin clay films on faces of peds and lining pores; moderately alkaline; clear smooth boundary.

Bq--20 to 34 inches; light yellowish brown (10YR 6/4) very fine sandy loam, dark yellowish brown (10YR 4/4) moist; massive; hard, firm, and brittle, slightly sticky and slightly plastic; few very fine and fine roots; common very fine and fine tubular pores; 40 percent strongly

cemented durinodes; continuous brittle matrix; moderately alkaline; clear smooth boundary.

Bqk1--34 to 55 inches; very pale brown (10YR 7/3) fine sandy loam, dark yellowish brown (10YR 4/4) moist; massive; hard, firm, and brittle, nonsticky and nonplastic; few very fine and fine roots; many very fine and fine interstitial and tubular pores; 60 percent strongly cemented durinodes; common fine soft filaments and coats of lime on durinodes; slightly effervescent; 2 percent pebbles; continuous brittle matrix; moderately alkaline; clear smooth boundary.

Bqk2--55 to 60 inches; light yellowish brown (10YR 6/4) fine sandy loam, dark yellowish brown (10YR 4/4) moist; massive; slightly hard, friable, nonsticky and nonplastic; few very fine and fine roots; common very fine and fine tubular pores; 60 percent strongly cemented durinodes; common fine soft filaments and coats of lime on durinodes; slightly effervescent; 5 percent pebbles; moderately alkaline.

Type location: Humboldt County, Nevada; approximately 1.3 miles east and 0.5 miles south of Hot Springs Peak; about 2,000 feet south and 1,000 feet east of the apparent northwest corner of section 7, T. 40 N., R. 41 E.; (41 degrees, 21 minutes, 42 seconds north latitude and 117 degrees, 24 minutes, 21 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry; moist in winter and spring, dry early June through November.

Soil temperature: 47 to 52 degrees F.

Depth to the base of the argillic horizon and depth to continuous silica cementation: 12 to 20 inches.

Depth to carbonates: 24 to 36 inches.

A horizons:

Value--5 through 7 dry; 3 or 4 moist; when mixed, the upper 7 inches averages lighter than 5.5 dry.

Chroma--2 or 3.

Reaction--Neutral through moderately alkaline.

Bt horizons:

Value--6 or 7 dry.

Chroma--2 through 4.

Texture--Sandy clay loam, clay loam or loam.
 Clay content--20 to 30 percent.
 Rock fragments--0 to 15 percent.
 Structure--Subangular blocky or angular blocky.
 Consistence--Slightly sticky or sticky and slightly plastic or plastic, wet.
 Reaction--Slightly alkaline or moderately alkaline.

Bq horizon:

Value--6 or 7 dry, 4 or 5 moist.
 Chroma--3 or 4.
 Texture--Fine sandy loam or very fine sandy loam; clay loam is common in some pedons.
 Clay content--12 to 18 percent.
 Rock fragments--0 to 15 percent, mainly pebbles.
 Structure--Massive with platy or subangular blocky common in some pedons.
 Consistence--Hard or very hard, dry, slightly sticky or sticky and slightly plastic or plastic, wet.
 Cementation--Continuous brittle matrix with up to 40 percent durinodes in a firm and brittle matrix.

Bqk horizons:

Hue--10YR or 2.5Y.
 Value--6 through 8 dry, 4 or 5 moist.
 Chroma--2 through 4.
 Texture--Loamy sand, loamy fine sand, fine sandy loam or very fine sandy loam.
 Clay content--8 to 12 percent.
 Rock fragments--0 to 15 percent, mainly pebbles.
 Consistence--Slightly hard to very hard dry, and friable or firm moist.
 Reaction--Slightly alkaline or moderately alkaline.
 Effervescence--Slightly effervescent to strongly effervescent.
 Other features--20 to 60 percent durinodes in a friable or firm matrix and or has a continuous brittle matrix.

Zymans series

The Zymans series consists of deep and very deep, well drained soils that formed in residuum and colluvium from volcanic rocks with additions of loess and ash. The Zymans soils are on hills, mountains and plateaus. Slopes are 2 to 50

percent. The mean annual precipitation is about 10 inches and the mean annual temperature is about 47 degrees F.

Taxonomic class: Fine, montmorillonitic, mesic Aridic Argixerolls

Typical pedon: Zymans very cobbly loam, 15 to 30 percent slopes, in an area of map unit 1470. (Colors are for dry soil unless otherwise noted.)

A1--0 to 2 inches; grayish brown (10YR 5/2) very cobbly loam, very dark brown (10YR 2/2) moist; moderate medium platy structure; soft, very friable, slightly sticky and slightly plastic; many very fine roots; common very fine and fine vesicular and interstitial pores; 25 percent pebbles, 20 percent cobbles, and 2 percent stones; neutral; abrupt smooth boundary.

A2--2 to 4 inches; dark grayish brown (10YR 4/2) very cobbly clay loam, very dark grayish brown (10YR 3/2) moist; moderate fine and medium subangular blocky structure parting to moderate very fine granular; slightly hard, friable, sticky and plastic; many very fine and common fine and medium roots; many very fine and common fine tubular pores; 25 percent pebbles and 20 percent cobbles; neutral; clear smooth boundary.

Bt1--4 to 6 inches; dark grayish brown (10YR 4/2) very cobbly clay, very dark brown (10YR 2/2) moist, few medium prominent relict black (N 2/0) mottles and stains; moderate fine subangular blocky structure parting to moderate very fine granular; hard, friable, very sticky and very plastic; many very fine and common fine to coarse roots; many very fine and fine tubular pores; common faint clay films lining pores and coating faces of peds; 20 percent pebbles and 15 percent cobbles; neutral; clear smooth boundary.

Bt2--6 to 12 inches; brown (10YR 5/3) clay, dark brown (10YR 3/3) moist, common medium, prominent, black (N 2/0) relict mottles and stains; strong coarse prismatic structure parting to strong fine angular blocky; very hard, firm, very sticky and very plastic; common very fine and fine roots, mainly exped; common very fine and fine tubular pores; common thick clay films lining pores and coating faces of peds; 10 percent pebbles and 2 percent cobbles; neutral; clear smooth boundary.

Bt3--12 to 37 inches; brown (10YR 5/3) clay, brown (10YR 4/3) moist, common medium prominent black (N 2/0) mottles in the upper part; strong coarse prismatic structure parting to strong angular blocky; very hard, firm, very sticky and very plastic; common very fine, fine and medium roots, mainly exped; common very fine tubular pores; many thick clay films on faces of peds; many pressure faces; 5 percent pebbles; neutral; gradual smooth boundary.

Bt4--37 to 50 inches; pale brown (10YR 6/3) silty clay loam, dark yellowish brown (10YR 4/4) moist; moderate fine subangular blocky structure; hard, firm, sticky and plastic; few very fine and fine roots; common very fine and fine tubular pores; 10 percent pebbles; many thick clay films on faces of peds; many pressure faces; 10 percent pebbles; slightly alkaline; abrupt wavy boundary.

2Btkb--50 to 56 inches; light brown (7.5YR 6/4) clay, strong brown (7.5YR 4/6) moist; moderate fine angular blocky structure; very hard, firm, very sticky and very plastic; few fine roots; few very fine and fine tubular pores; many thick clay films on faces of peds; many pressure faces; many coarse seams and soft filaments of lime; violently effervescent; 5 percent pebbles; moderately alkaline; abrupt wavy boundary.

Cr--56 to 63 inches; weathered volcanic bedrock

Type location: Humboldt County, Nevada; approximately four miles southeast of Jordan Meadow; about 500 feet south and 2,000 feet east of the northwest corner of section 16, T. 45 N, R. 36 E.; (41 degrees, 47 minutes, 08 seconds north latitude and 117 degrees, 56 minutes, 16 seconds west longitude.)

Range in characteristics:

Soil moisture: Usually dry, moist late October to mid June.

Soil temperature: 47 to 52 degrees F.

Mollic epipedon: 10 to 19 inches thick, includes the upper Bt horizon.

Depth to base of Bt horizon: 40 to more than 60 inches.

Depth to weathered bedrock: 40 to more than 60 inches.

Control section:

Clay content--45 to 60 percent, subhorizons in some pedons range from 35 to 60 percent.

Rock fragments--5 to 20 percent.

A horizons:

Value--4 or 5 dry, 2 or 3 moist.

Chroma--2 or 3.

Reaction--Neutral or slightly alkaline.

Bt horizons:

Hue--10YR or 7.5YR.

Value--4 through 6 dry, 2 through 4 moist.

Chroma--2 through 6. (Low value and chroma are in the upper part of the horizon)

Structure--Prismatic or blocky.

Consistence--Hard to very hard, dry.

Texture--The textures of the upper part of the Bt horizon are clay and silty clay, the lower part of the Bt horizon textures are silty clay loam, clay loam and clay with 0 to 15 percent rock fragments and averages 5 to 20 percent rock fragments

Reaction--Neutral through moderately alkaline, increasing with depth.

Carbonates--Segregated lime below 40 inches is in most pedons.

Formation of the Soils

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

Soil is a natural body on the surface of the earth in which plants grow. It is a mixture of rock and mineral matter, organic matter, water, and air, which occur in varying proportions. The rocks and minerals are fragmented and partly or wholly weathered. Soils have distinctive layers, or horizons, that are the product of environmental forces acting upon materials deposited or accumulated by geological agencies. The layers are more distinct in some soils than others.

The characteristics of the soils at any given point are determined by the interaction of (1) the parent material; (2) the climate in which the parent material has accumulated and has existed since accumulation; (3) the relief or topography, which influences the local, or internal environment of the soil, its drainage, moisture content, aeration, susceptibility to erosion, and exposure to sun and wind; (4) the biological forces that act upon the soil material; and (5) the length of time that climate, relief, and biological factors have acted on the parent material.

Humboldt County, East Part falls in a transitional zone of disrupted structure between the Columbia Plateau and the Great Basin. Many of the present landforms are a result of events which took place during quaternary time.

Climate

Climate affects soil formation through its effect on vegetation, weathering, water transport, and erosion. The main climatic factors which influence soil formation in this area, are precipitation, wind, and temperature.

The climate of the survey area is characterized by warm, dry summers and cool, moist winters. Temperatures and precipitation throughout the area vary considerably with elevation, aspect, and to some degree, storm track patterns. The average

annual air temperature ranges from 53 degrees F° at lower elevations in the valleys to 41 degrees F° or less on high mountain slopes. The average annual precipitation ranges from about 6 inches at the lower elevations to over 16 inches at the higher elevations. Major climatic variations are the result of the effects of topography and relief. Temperature decreases with increasing elevation. Precipitation increases with increasing elevation and is highest in the mountain areas in the northern part of the survey area. As a consequence, the soils of the area reflect a general zonation with respect to elevation. Precipitation patterns, particularly as they relate to time of year and intensity of storms, play an important role in the formation of soils in this area.

In the lower elevations of the survey area, the average annual precipitation is about 6 to 8 inches. In this arid part of the area, weathering of parent material is slow, leaching is incomplete, and eluviation and illuviation proceed at a very slow rate. The plant cover is sparse and consists mainly of drought and salt-tolerant shrubs. Typically, the soils are low in organic matter content and have thin, light colored A horizons. Soluble salts and calcium carbonate accumulate in the soil profile at a relatively shallow depth. Typic Torriorthents (Mazuma and Essal series) characterize soils that reflect soil formation in this arid part of the area.

In the mid-elevations of the survey area, the average annual precipitation is about 8 to 12 inches. With increasing elevation there is an accompanying increase in precipitation, which results in deeper leaching of salts and calcium carbonate, decreased reaction, changes in the kind and density of vegetation, a thicker and darker A horizon and more pronounced eluviation and illuviation. Lithic Xerollic Haplargids (Bregar and Anawalt series), Lithic Argixerolls (Devada and Cleavage series) and Aridic Argixerolls (Reluctan and Sumine series), represent soils formed at middle elevations.

At the higher elevations of this survey area the precipitation is 12 to 16 inches. The vegetation is mostly sagebrush, with a greater amount and

variation in the kinds of grasses. Leaching of salts and carbonates has been more intensive and the soils are neutral or slightly acid. A horizons are thicker and higher in organic matter content because of increased vegetative production combined with slower organic matter decomposition due to colder temperatures. Argic Cryoborolls (Spinlin series), and Pachic Argixerolls (Bullump and Softscrabble series) are typical of these soils.

The effects of wind on the soil formation in this area are exhibited in several ways. The movement and deposition of sand in sand sheets or sand dunes is characterized by Typic Torripsamments (Hawsley and Isolde series) and Xeric Torripsamments (Goldrun series). Carbonate-laden dust from playas creating calcareous soils formed in residuum of noncalcareous parent material is characterized by (calcareous) Xeric Torriorthents (Puett series).

In winter, freezing and thawing generally occur throughout most of the survey area, except in those areas that are insulated by snow cover. The effects of frost action are discernible by the heaving of plants and erosion of the surface soil. At some of the higher elevations freezing and thawing has fractured and displaced the bedrock.

In summer, the hot sun and lack of moisture drastically affect plant growth especially at lower elevations. This effect is shown in both the lack of variety of plants and their root distribution. The lack of roots in the surface layer cause very low amounts of organic matter in these soils. Typic Torriorthents (Benin, Bluewing, Essal, Mazuma, Soolake, Tresed, and Trocken series) are typical of these soils.

Living Organisms

Plants, animals, insects, and microflora are important biological forces that affect soil formation in the survey area. Although mammals, such as badgers and ground squirrels, and insects, such as cicadas and ants, have had some affect on soil development, plants appear to have had the major biological influence on the soils in this survey area.

Vegetation is particularly important as it affects soil erosion. Where vegetation is sparse there is little cover and a higher rate of geological erosion occurs. Lithic Torriorthents (Sojur series) and Typic Torriorthents (Bluewing series) are examples. In areas where the vegetative cover is thicker, there is protection from the intense rains and the amount of roots help protect the soil from erosion. Aridic Argixerolls (Sumine series) is an example.

Because of climatic differences, plants vary considerably in kinds and amounts as elevation increases. On the bolson floors and hills at low elevations the main plants are drought and salt tolerant shrubs. Because of the scarcity of available moisture, plants cover only a small part of the surface. They add little organic matter to the soils and provide little protection from the wind, rain, and sun. Salt tolerant shrubs also tend to recycle salts from the deeper layers to the surface soil, thus increasing salinity in surface layers.

The mountainous areas generally support a denser stand of shrubs, grasses, and in some places, trees. Because of the more abundant vegetation, the A horizons of the soils in these areas are thicker, higher in organic matter, and darker in color. An example of soils formed in this vegetation type are Pachic Cryoborolls (Hackwood and Tosp series).

Relief

Relief, through its effects on drainage, runoff, erosion, and exposure to the sun and wind, has had an important effect on soil formation in the survey area. The plateaus, mountain ranges, piedmont slopes, and bolson floors reflect the gross variations in relief within the area.

The plateaus and mountain ranges are mainly characterized by steep relief. Runoff is generally rapid and hazard of erosion is generally moderate or severe on side slopes. Runoff is generally very slow to medium and erosion hazard is slight or moderate on plateau summits and mountain crests. Lithic Torriorthents (Sojur series) and Xeric Torriorthents (Puett series) are examples of soils on less stable mountain slopes where soil formation has been unable to act on parent material long enough for any diagnostic horizons to have developed. An argillic horizon has formed in the soils on more stable mountain surfaces where the rate of geologic erosion is slower. Lithic Haplargids (Hoot and Theon series), Lithic Xerollic Haplargids (Burrita and Bregar series), Lithic Argixerolls (Cleavage and Longcreek series) and Aridic Argixerolls (Alyan and Zymans series) are examples of soils that formed on the more stable mountain and plateau slopes and have an argillic horizon. Lithic Xerollic Haplargids (Anawalt series), Lithic Argixerolls (Devada and Ninemile series), and Abruptic Aridic Durixerolls (Charwell series) are examples of soils on less sloping and more stable plateau summits and mountain crests where the rate of geologic erosion is slower allowing for maximum soil development.

Soils on higher concave and north facing slopes commonly have pockets where snow remains into late spring and early summer and support a dense stand of shrubs and grasses. The soils in these areas have developed a thick, dark colored A horizon with a high organic matter content. Argic Pachic Cryoborolls (Tusel series) and Pachic Cryoborolls (Harcany series) are examples of these soils.

The upper piedmont slopes are usually dissected with stable interfluvial surfaces on the fan remnants and narrow, less stable inset fans. These fan piedmont remnant areas have been relatively stable over a long period of time as a result of the routing of drainage water through the dissecting channels, thus allowing sufficient time for stronger development to occur. Xerollic Durargids (Hunnton series) are examples of soils which formed on these surfaces. The inset fans are not as stable and have periodically received overflow from up-slope areas. These soils are less developed than those on the piedmont remnants and often exhibit cambic horizons. Xerollic Camborthids (Rebel and McConnel series) are typical of these soils.

On the bolson floor, alluvial flats which are perpendicular to the piedmont slope, have nearly level soils that carry very low velocity floodwater and runoff allowing some deposition of soil material. At the end of the alluvial flats and on lake plains adjacent to playas, drainage is often restricted resulting in a high water table. Runoff is very slow and salts accumulate. These areas are represented by Aquic Durorthidic Torriorthents (Prideen series) and Aeric Halaquepts (Argenta and Wendane series).

Parent Material

Parent material is the earthy material from which soils form. The physical and chemical composition greatly influence soil formation. The main sources of parent material in this survey area are volcanic rock in hills, mountains, and plateaus, and alluvium and lacustrine deposits from mixed rock sources in bolsons. Sedimentary and plutonic rocks, and eolian deposits with additions of eolian volcanic ash are less prominent sources of parent material.

The volcanic rock including basalt, andesite, rhyolite, dacite, and siliceous tuff, is the main source of parent material in the Montana, Bilk Creek, Jackson, and Snowstorm Mountains and the northern Santa Rosa Range (22). Volcanic rocks generally contain minerals which may weather to clay when time and climatic conditions are favorable. For this reason soils which formed in

residuum and colluvium from this parent material and which are on sufficiently stable land forms for long periods of time form argillic horizons. Lithic Xerollic Haplargids (Anawalt and Soughe series) and Lithic Argixerolls (Devada and Longcreek series) are examples of these soils.

The sedimentary formations including shale and slate, exhibit varying degrees of metamorphism, and are a main source of parent material in the southern part of the Santa Rosa Range, Sonoma, and Blue Mountains (22). These parent materials are high in carbonates. Carbonates have a tendency to inhibit the formation of argillic horizons, thus those soils with higher amounts of carbonates in the parent material lack argillic horizons or have more weakly defined argillic horizons than soils of similar age that formed in volcanic parent material. Lithic Xeric Torriorthents (Puffer series) and Lithic Xerollic Haplargids (Atlow series) are examples of these soils.

The plutonic rocks, the predominant type of which is Tertiary-Cretaceous granodiorite (22), have intruded the volcanic, metamorphic, and sedimentary rock in many places of the survey area. These areas range in size from small plugs to as large as one township in size. The larger intruded areas are a main source of parent material in the Montana, Santa Rosa, and Osgood Mountains. The relatively large amount of quartz mineral and its resistance to weathering results in an abundance of coarse sand particles and fine pebbles. Pachic Haploxerolls (Ola series) and Pachic Cryoborolls (Aycab and Tosp series) are examples of these soils. Plutonic rocks also contain minerals which may weather into clay when time and climatic conditions are favorable. For this reason, soils which formed in residuum from this parent material and are on more stable slopes form argillic horizons. Xerollic Haplargids (Gol series) and Aridic Argixerolls (Eaglerock and Say series) are examples of these soils.

Alluvium deposited as alluvial fans, fan piedmonts, fan skirts, lake plains, and alluvial flats, consists of sandy, loamy, silty, or clayey material of generally mixed mineralogy that has been eroded from the adjacent mountains. Alluvium deposited on fans and fan piedmonts is mostly loamy or sandy textured with varying amounts of pebbles, cobbles, and stones. Soils closer to the mountains on fan piedmonts and alluvial fans generally formed in parent material that is higher in rock fragments and more coarse textured. Typic Torriorthents (Tresed series) are an example of finer textured soils on lower lake plain terraces.

Eolian material, consisting mainly of sand, has been deposited in large areas of the south end of Desert and Silver State Valleys. These deposits occur as sand sheets, most of which have been wind and water reworked, and as dunes. Examples of these soils are Typic Torripsamments (Isolde series).

Time

Time is required for the formation of soils. The time available for a soil to develop to unconsolidated material is the time that has elapsed since the last deposits were laid down. Soils on sedimentary or igneous rocks began to develop after the parent rock weathered into permeable material. The thickness and other characteristics of the A and B horizons reflect the relative age of the soil.

The soils in this survey area range from a few years old to thousands of years in age. This range in age is a major reason for the many kinds of soils in the survey area.

The interrelation between time and the other soil forming factors are well understood by soil scientists and geologists working in this field. Many soil scientists and geologists feel that weathering of parent material and soil profile development have been essentially continuous, with little change in rate throughout Quarternary time (12, 13, 16, 21).

Recently, earth scientists concerned with differentiating Quarternary deposits have proposed that soil development has not proceeded continuously at the same rate, but has taken place intermittently at rapid rates (9, 10, 11, 15). Concepts of soil stratigraphy use weathering profiles as stratigraphic makers to differentiate and correlate Quarternary deposits. These concepts of soil development are based on the assumption that weathering profiles formed in response to infrequent combinations of climatic factors that induced minimal erosion and deposition and a greatly accelerated rate of chemical weathering.

Although disagreements exist in regard to the relative influence of time and other soil forming factors, the concept of intermittency of soil formation has been supported by numerous studies and provides a practical technique to discuss the age of soils in this survey area in relation to geologic and climatic factors in the Quarternary.

The kinds of diagnostic subsurface horizons and other subsurface diagnostic properties together with their strength of expression, provide general clues to

the age of the soils in the area. Important subsurface diagnostic horizons present in soils within the area include argillic, natric, cambic, and horizons exhibiting silica cementation.

Prominent argillic horizons in this area generally occur only in soils formed primarily during the Pleistocene. This concept has been established by studies in the southwest (5, 6,) and is further supported in Soil Taxonomy (20). In horizons with increasing age and constancy of other conditions, argillic horizons become finer in texture, become somewhat thicker, and tend to develop abrupt upper boundaries. Weakly expressed, thin argillic horizons may have formed during very late Pleistocene or early Holocene time.

Natric horizons are special kinds of argillic horizons that formed under the influence of high exchangeable sodium. The effect of sodium on the dispersion of clay may tend to accelerate the rate of formation of argillic horizons. This is not believed to be significant however, except in weakly expressed natric horizons that formed on Holocene surfaces. Following the formation of argillic horizons, prominent natric horizons may have developed as a result of sodium supplied by deposition of surficial loess. This is believed to be an important present-day process that affects the physical and chemical properties of soils in the area.

Cambic horizons in soils within the area formed for the most part on Holocene surfaces. Original stratification is absent, and carbonates have been removed and redeposited in underlying horizons. Investigations in Southern New Mexico indicate the cambic horizons in that region are less than about 5,000 years old (4, 7.) Cambic horizons in the survey area and in other areas in Northern Nevada have been generally thought to be less than 10,000 years old. This age has been determined mostly as a result of soil mapping in areas below the last high stage of Pleistocene Lake Lahontan (8, 9, 10, 11).

The youngest soils in the area are those which formed in recently transported alluvium or material which has been recently exposed by erosion. These soils are on lake plain terraces, fan skirts, or lower lying alluvial fans. Typic Torriorthents (Trocken series) is an example of soils which formed in recent alluvium. Typic Torripsamments (Isolde series) were formed in recently deposited eolian sands. These soils have little or no profile development.

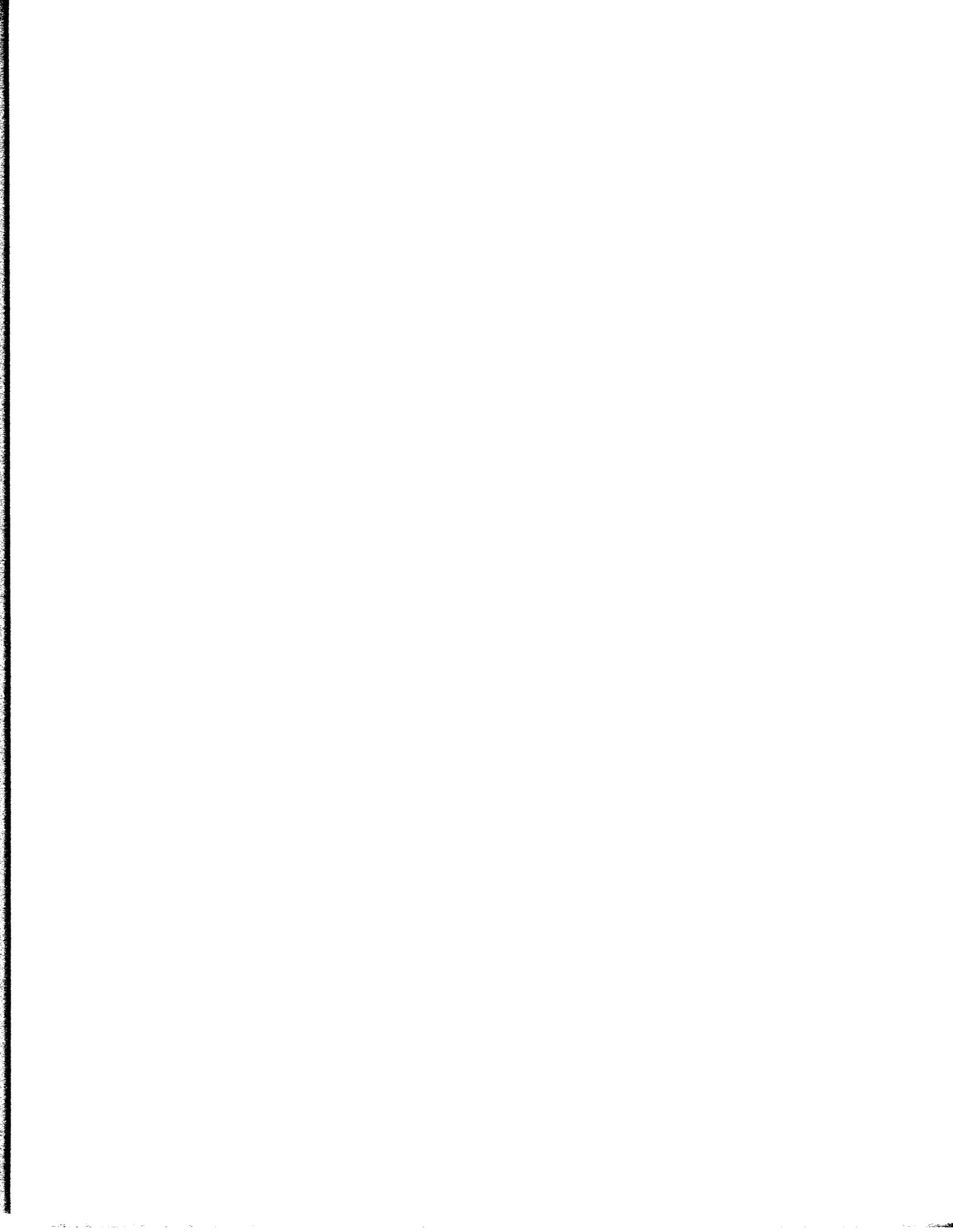
Somewhat older than the youngest soils are soils on higher lake plain terraces or alluvial fans that have developed weakly expressed horizons. These soils have cambic horizons. The lower horizons often have accumulation of calcium carbonates in the

form of pendants on the rock fragments. Examples of these soils are Typic Camborthids (Dun Glen series) and Xerollic Camborthids (McConnel series).

Soils of intermediate age are more strongly developed and have distinctive horizons. These soils will have thicker, well developed argillic horizons and may have durinodes or strongly developed silica-lime cemented hardpans. Xerollic Durargids (Midraw

and Dewar series) are examples of these soils.

Soils on the oldest, most stable surfaces are the most strongly developed. These soils have strong profile development and have considerably more distinct horizons. Abruptic Aridic Durixerolls (Igdell and Lunder series) are typical examples of these soils.



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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 cone. The material washed down the sides of mountains and hills by ephemeral streams and deposited at the mouth of gorges in the form of a moderately steep, conical mass descending equally in all directions from the point of issue.

Alluvial fan. The fanlike deposit of a stream where it issues from a narrow valley upon a plain, or of a tributary stream near or at its junction with its main stream.

Alluvial flat. A nearly level, graded, alluvial surface in bolsons and semi-bolsons. Commonly, an alluvial flat does not manifest terraces or floodplain levels.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

Alpha,alpha-dipyridyl. A dye that when dissolved in 1N ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction indicates a type of redoximorphic feature.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Area reclaim (in tables). An area difficult to reclaim after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Argillite. Weakly metamorphosed mudstone or shale.

Arroyo. The flat-floored channel of an ephemeral stream, commonly with very steep to vertical banks cut in alluvium.

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 3.5
Low	3.5 to 5
Moderate	5 to 7.5
High	more than 7.5

Avalanche chute. The track or path formed by an avalanche.

Back slope. The geomorphic component that forms the steepest inclined surface and principal element of many hillsides. Back slopes in profile are commonly steep, are linear, and may or may not include cliff segments.

Backswamp. A floodplain landform of extensive, marshy, or swampy, depressed areas of flood

plains between natural levees and valley sides or terraces.

- 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.
- Ballena.** A fan remnant having a distinctively-rounded surface of fan alluvium. The ballena's broadly rounded shoulders meet from either side to form a narrow summit and merge smoothly with concave, short pediments which form smoothly-rounded drainageways between adjacent ballenas. A partial ballena is a fan remnant large enough to retain some relict fan surface on a remnant summit.
- Barrier beach.** A wide gently sloping portion of a bolson floor comprising numerous, parallel, relict longshore-bars and lagoons built by a receding pluvial lake.
- 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.
- Base saturation.** The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, K), expressed as a percentage of the total cation-exchange capacity.
- Basin floor.** A general term for the nearly level, lower-most part of intermontane basins (i.e., bolson, semi-bolsos). The basin floor includes all of the alluvial, eolian, and erosional landforms below the piedmont slope.
- Beach terrace.** The relict shorelines from pluvial lakes, generally restricted to valley sides.
- Bedding planes.** Fine strata, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediment.
- Bedding system.** A drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.
- 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.
- Bisequum.** Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.
- Blowout.** A shallow depression from which all or most of the soil material has been removed by wind. A blowout has a flat or irregular floor formed by a resistant layer or by an accumulation of pebbles or cobbles. In some blowouts, the water table is exposed.
- Board foot.** A unit of measure of the wood in lumber, logs, or trees. The amount of wood in a board one foot wide, one foot long, and one inch thick before finishing.
- Bolson.** A landscape term for an internally drained intermontane basin into which drainages from surrounding mountains converge inward toward a central depression.
- Boulders.** Rock fragments larger than 2 feet (60 centimeters) in diameter.
- Breaks.** The steep and very steep broken land at the border of an upland summit that is dissected by ravines.
- 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.
- Caldera.** A large, more or less circular depression, formed by explosion and/or collapse, which surrounds a volcanic vent or vents, and whose

diameter is much greater than that of the included vent, or vents.

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.

California bearing ratio (CBR). The load-supporting capacity of a soil as compared to that of a standard crushed limestone, expressed as a ratio. First standardized in California. A soil having a CBR of 16 supports 16 percent of the load that would be supported by standard crushed limestone, per unit area, with the same degree of distortion.

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.

Catena. A sequence, or "chain," of soils on a landscape that formed in similar kinds of parent material but have different characteristics as a result of differences in relief and drainage.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Channeled. Refers to a drainage area in which natural meandering or repeated branching and convergence of a streambed have created deeply incised cuts, either active or abandoned, in alluvial material.

Channery soil material. Soil material that is, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.

Chemical treatment. Control of unwanted vegetation through the use of chemicals.

Chiseling. Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay depletions. Low-chroma zones having a low content of iron, manganese, and clay because of the chemical reduction of iron and manganese and the removal of iron, manganese, and clay. A type of redoximorphic depletion.

Clayey soil. Silty clay, sandy clay, or clay.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.

Claypan. A slowly permeable soil horizon that contains much more clay than the horizons above it. A claypan is commonly hard when dry and plastic or stiff when wet.

Clearcut. A method of forest harvesting that removes the entire stand of trees in one cutting. Reproduction is achieved artificially or by natural seeding from adjacent stands.

Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.

Closed depression. A low area completely surrounded by higher ground and having no natural outlet.

Coarse fragments. Mineral or rock particles larger than 2 millimeters in diameter.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded, partly rounded, or angular fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that is 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material is 35 to 60 percent of these rock fragments, and extremely cobbly soil material is more than 60 percent.

Codominant trees. Trees whose crowns form the general level of the forest canopy and that receive full light from above but comparatively little from the sides.

- Colluvium.** Unconsolidated, unsorted earth material moved and deposited by mass movement on sideslopes and at the base of slopes.
- Commercial forest.** Forest land capable of producing 20 cubic feet or more per acre per year at the culmination of mean annual increment.
- Complex slope.** Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.
- Complex, soil.** A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.
- Compressible** (in tables). Excessive decrease in volume of soft soil under load.
- Concretions.** Cemented bodies with crude internal symmetry organized around a point, a line, or a plane that typically takes 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 to 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 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."
- Contour stripcropping.** Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.
- Control section.** The part of the soil on which classification is based. The thickness varies among different kinds of soil, but, for many, it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.
- Coprogenous earth (sedimentary peat).** Fecal material deposited in water by aquatic organisms.
- 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.
- Cross-slope farming.** Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.
- Crown.** The upper part of a tree or shrub, including the living branches and their foliage.
- Cuesta.** A hill or ridge that has a gentle slope on one side and a steep slope on the other; specifically, an asymmetric, homoclinal ridge capped by resistant rock layers of slight or moderate dip.
- 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.

Deep soil. A soil that is 40 to 60 inches deep over bedrock or to other material that restricts the penetration of plant roots.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Delta. A body of alluvium having a surface that is nearly flat and fan shaped, deposited at or near the mouth of a river or stream where it enters a body of relatively quiet water, generally a sea or lake.

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.

Depth to rock (in tables). Bedrock is too near the surface for the specified use.

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.

Dip slope. A slope of the land surface, roughly determined by and approximately conforming to the dip of the underlying bedrock.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Divided-slope farming. A form of field stripcropping in which crops are grown in a systematic arrangement of two strips, or bands, across the slope to reduce the hazard of water erosion. One strip is in a close-growing crop that provides protection from erosion, and the other strip is in a crop that provides less protection from erosion. This practice is used where slopes are not long enough to permit a full stripcropping pattern to be used.

Dominant trees. Trees whose crowns form the general level of the forest canopy and that receive full light from above and from the sides.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized: excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

Drainage, surface. Runoff, or surface flow of water, from an area.

Drainageway. An area of ground at a lower elevation than the surrounding ground and in which water collects and is drained to a closed depression or lake or to a drainageway at a lower elevation. A drainageway may or may not have distinctly incised channels at its upper reaches or throughout its course.

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.

Dune. A mound, ridge, or hill of loose, windblown granular material (generally sand), either bare or covered with vegetation.

Ecological Site. A distinctive kind of rangeland or grazed forestland that has a unique historic potential native plant community. Ecological sites are the products of all the environmental factors that affect their development. An ecological site is capable of supporting a native plant community that has a unique kind and/or proportion of species or total vegetative production. Ecological sites in grazed forestland include both overstory and understory vegetation.

Effervescence. The quality of a soil measured when drops of diluted (1:10) hydrochloric acid (HCL) are added to the soil. The ratings are as follows:

- Very slightly effervescentfew bubbles
- Slightly effervescentbubbles readily
- Strongly effervescent bubbles form low foam
- Violently effervescentbubbles form thick foam quickly

- 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 pavement.** A layer of gravel or stones that remains on the surface after fine particles are removed by sheet or rill erosion.
- 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.
- Even aged.** Refers to a stand of trees in which only small differences in age occur between the individuals. A range of 20 years is allowed.
- Excess alkali (in tables).** Excess exchangeable sodium in the soil. The resulting poor physical properties restrict the growth of plants.
- Excess fines (in tables).** Excess silt and clay in the soil. The soil does not provide a source of gravel or sand for construction purposes.
- Excess lime (in tables).** Excess carbonates in the soil that restrict the growth of some plants.
- Excess salts (in tables).** Excess water-soluble salts in the soil that restrict the growth of most plants.
- Excess sodium (in tables).** Excess exchangeable sodium in the soil. The resulting poor physical properties restrict the growth of plants.
- Excess sulfur (in tables).** Excessive amount of sulfur in the soil. The sulfur causes extreme acidity if the soil is drained, and the growth of most plants is restricted.
- 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 apron.** A sheet-like mantle of relatively young alluvium covering part of an older fan piedmont surface. It somewhere buries a soil that can be traced to the edge of the fan apron.
- Fan piedmont.** The most extensive landform on piedmont slopes, formed by the coalescence of alluvial fans or accretions of fan aprons into one generally smooth slope.
- Fan remnant.** A general term for landforms that are remaining parts of older fan-landforms, that either have been dissected or partially buried.
- Fan skirt.** The zone of smooth, laterally-coalescing, small alluvial fans that issue from gullies cut into the fan piedmont or that are the coalescing extensions of inset fans of the fan piedmont, and that merge with the basin floor.
- Fast intake (in tables).** The rapid movement of water into the soil.
- Fertility, soil.** The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.
- Fibric soil material (peat).** The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.
- Field moisture capacity.** The moisture content of a soil, expressed as a percentage of the oven-dry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called

normal field capacity, normal moisture capacity, or capillary capacity.

Fill slope. A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.

Fine textured soil. Sandy clay, silty clay, or clay.

Firebreak. An area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of fire fighters and equipment. Designated roads also serve as firebreaks.

First bottom. The normal flood plain of a stream, subject to frequent or occasional flooding.

Flaggy soil material. Material that is, by volume, 15 to 35 percent flagstones. Very flaggy soil material is 35 to 60 percent flagstones, and extremely flaggy soil material is 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.

Foothill. A steeply sloping upland that has relief of as much as 1,000 feet (300 meters) and fringes a mountain range or high-plateau escarpment.

Foot slope. The inclined surface at the base of a hill.

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.

Fragile (in tables). A soil that is easily damaged by use or disturbance.

Frost action (in tables). Freezing and thawing of soil moisture. Frost action can damage roads, buildings and other structures, and plant roots.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Gilgai. The microrelief of clayey soils that shrink and swell considerably with changes in moisture content. Usually manifested as a succession of microbasins and microknolls in nearly level areas or of microvalleys and microridges parallel with the slope.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Graded stripcropping. Growing crops in strips that grade toward a protected waterway.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that is 15 to 50 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water. Water filling all the unblocked pores of underlying material below the water table.

Gully. A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Gypsum. A mineral consisting of hydrous calcium sulfate.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hardpan. A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.

Heavy metal. Inorganic substances that are solid at ordinary temperatures and are not soluble in water. They form oxides and hydroxides that are basic. Examples are copper, iron, cadmium, zinc, manganese, lead, and arsenic.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A natural elevation of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

Holocene. The epoch of the Quaternary Period of geologic time, extending from the end of the Pleistocene Epoch (about 10 to 12 thousand years ago) to the present.

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. 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 less palatable to livestock.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Inset fan. A special case of the flood plain of an ephemeral stream that is confined between fan remnants, basin-floor remnants, ballenas, or closely opposed fan toeslopes.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Intermittent stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives groundwater discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Intermontane basin. A generic term for wide structural depressions between mountain ranges that are partly filled with alluvium. They may be drained internally (bolsons) or externally (semi-bolsons).

Invaders. On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

Iron depletions. Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Basin.--Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Border.--Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes or borders.

Controlled flooding.--Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.--Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).--Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.--Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.--Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.--Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.--Water, released at high points, is allowed to flow onto an area without controlled distribution.

Lacustrine deposit. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

Lagoon. The nearly level, filled depression behind the longshore bar on a barrier beach.

Lake plain. A surface marking the floor of an extinct lake, filled in by well sorted, stratified sediments.

Lake terrace. The narrow shelf produced along a lake shore and later exposed when the water recedes.

Lamella. A thin, generally horizontal layer of fine material illuviated within a very much thicker, coarser, eluviated layer.

Landform. Any recognizable form or feature on the earth's surface, having a characteristic shape, and produced by natural causes that provide an empirical description of similar portions of the earth's surface.

Landscape. A collection of related, natural landforms.

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.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Loamy soil. Coarse sandy loam, sandy loam, fine sandy loam, very fine sandy loam, loam, silt loam, silt, clay loam, sandy clay loam, or silty clay loam.

Loess. Fine grained material, dominantly of silt-sized particles, deposited by wind.

Longshore bar. A narrow, elongate, coarse-textured ridge, built by the wave action of a pluvial lake, that extends parallel to the shore and separated it from a lagoon; both the bar and lagoon are now relict features.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Low strength. The soil is not strong enough to support loads.

Marl. An earthy, unconsolidated deposit consisting chiefly of calcium carbonate mixed with clay in approximately equal amounts.

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.

Mean annual increment (MAI). The average annual increase in volume of a tree during the entire life of the tree.

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.

Merchantable trees. Trees that are of sufficient size to be economically processed into wood products.

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 deep soil. A soil that is 20 to 40 inches deep over bedrock or to other material that restricts the penetration of plant roots.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance--*few*, *common*, and *many*; size--*fine*, *medium*, and *coarse*; and contrast--*faint*, *distinct*, and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).

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.)

Mudstone. Sedimentary rock formed by induration of silt and clay in approximately equal amounts.

Munsell notation. A designation of color by degrees of three simple variables--hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Natric horizon. A special kind of argillic horizon that contains enough exchangeable sodium to have an adverse effect on the physical condition of the subsoil.

Neutral soil. A soil having a pH value between 6.6 and 7.3. (See Reaction, soil.)

Nodules. Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Observed rooting depth. Depth to which roots have been observed to penetrate.

Organic matter. Plant and animal residue in the soil in various stages of decomposition.

Overstory. The trees in a forest that form the upper crown cover.

Oxbow. The horseshoe-shaped channel of a former meander, remaining after the stream formed a cutoff across a narrow meander neck.

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan*, *fragipan*, *claypan*, *plowpan*, and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Parna dune. An eolian dune built of sand size aggregates of clayey material that commonly occurs leeward of a playa.

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.

Pediment. A gently sloping erosional surface developed at the foot of a receding hill or mountain slope.

Pedisediment. A thin layer of alluvial material that mantles an erosion surface and has been transported to its present position from higher lying areas of the erosion surface.

Pedon. The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The downward movement of water through the soil.

Percs slowly (in tables). The slow movement of water through the soil adversely affects the specified use.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as "saturated hydraulic conductivity," which is defined in the "Soil Survey Manual." In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as "permeability."

Terms describing permeability, measured in inches per hour, are as follows:

Extremely slow	0.00 to 0.01 inch
Very slow	0.01 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Piedmont slope. The dominant slope at the foot of a mountain. Main components of the piedmont slope include pediments, alluvial fans, fan piedmonts, fan skirts and inset fans.

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.

Playa. The generally dry and nearly level lake plain that occupies the lowest parts of closed depressional areas, such as those on intermontane basin floors. Temporary flooding occurs primarily in response to precipitation and runoff.

Pleistocene. The epoch of the Quaternary Period of geologic time preceding the Holocene (from approximately 2 million to 10 thousand years ago).

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Pluvial. Relating to former periods of abundant rains.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poor filter (in tables). Because of rapid or very rapid permeability, the soil may not adequately filter effluent from a waste disposal system.

Poorly graded. Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Poor outlets (in tables). Refers to areas where surface or subsurface drainage outlets are difficult or expensive to install.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Quartzite, metamorphic. Rock consisting mainly of quartz that formed through recrystallization of quartz-rich sandstone or chert.

Quaternary. The period of geologic time, extending from about 2 million years ago to the present and comprising two epochs, the Pleistocene (Ice Age) and Holocene (Recent).

Quartzite, sedimentary. Very hard but unmetamorphosed sandstone consisting chiefly of quartz grains.

Range condition. The present composition of the plant community on a range site in relation to the potential natural plant community for that site. Range condition is expressed as excellent, good, fair, or poor on the basis of how much the present plant community has departed from the potential.

Rangeland. Land on which the potential natural vegetation is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.

Range site. An area of rangeland where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. A range site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other range sites in kind or proportion of species or total production.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline. (mildly 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.

- Regeneration.** The new growth of a natural plant community, developing from seed.
- Regolith.** The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose earth material above the solid rock.
- Relict stream terrace.** One of a series of platforms in or adjacent to a stream valley that formed prior to the current stream system.
- Relief.** The elevations or inequalities of a land surface, considered collectively.
- Residuum (residual soil material).** Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.
- Rill.** A steep-sided channel resulting from accelerated erosion. A rill is generally a few inches deep and not wide enough to be an obstacle to farm machinery.
- Riverwash.** Unstable areas of sandy, silty, clayey, or gravelly sediments. These areas are flooded, washed, and reworked by rivers so frequently that they support little or no vegetation.
- Road cut.** A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.
- Rock fragments.** Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.
- Rock outcrop.** Exposures of bare bedrock other than lava flows and rock-lined pits.
- Rooting depth (in tables).** Shallow root zone. The soil is shallow over a layer that greatly restricts roots.
- Root zone.** The part of the soil that can be penetrated by plant roots.
- Rubble land.** Areas that have more than 90 percent of the surface covered by stones or boulders. Voids contain no soil material and virtually no vegetation other than lichens. The areas commonly are at the base of mountain slopes, but some are on mountain slopes as deposits of cobbles, stones, and boulders left by Pleistocene glaciation or by periglacial phenomena.
- Runoff.** The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is

called groundwater runoff or seepage flow from ground water.

- Saline soil.** A soil containing soluble salts in an amount that impairs the growth of plants. A saline soil does not contain excess exchangeable sodium.
- Salinity.** The electrical conductivity of a saline soil. It is expressed, in millimhos per centimeter, as follows:

Nonsaline	0 to 2
Very slightly saline	2 to 4
Slightly saline	4 to 8
Moderately saline.....	8 to 16
Strongly saline.....	More than 16

- Salty water (in tables).** Water that is too salty for consumption by livestock.
- 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.
- Sand sheet.** A large, irregularly shaped, surficial mantle of eolian sand.
- Sandstone.** Sedimentary rock containing dominantly sand-sized particles.
- Sandy soil.** Sand or loamy sand.
- Sapric soil material (muck).** The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.
- Saprolite.** Unconsolidated residual material underlying the soil and grading to hard bedrock below.
- 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.
- Sawlogs.** Logs of suitable size and quality for the production of lumber.
- Scarification.** The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.
- Scribner's log rule.** A method of estimating the number of board feet that can be cut from a log of a given diameter and length.
- Second bottom.** The first terrace above the normal flood plain (or first bottom) of a river.
- 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.
- Seepage** (in tables). The movement of water through the soil. Seepage adversely affects the specified use.
- Semi-bolson**. An intermontane basin that is drained externally by an intermittent stream.
- Sequum**. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)
- Series, soil**. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.
- Shale**. Sedimentary rock formed by the hardening of a clay deposit.
- Shallow soil**. A soil that is 10 to 20 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Sheet erosion**. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.
- Shelterwood system**. A forest management system requiring the removal of a stand in a series of cuts so that regeneration occurs under a partial canopy. After regeneration, a final cut removes the shelterwood and allows the stand to develop in the open as an even-aged stand. The system is well suited to sites where shelter is needed for regeneration, and it can aid regeneration of the more intolerant tree species in a stand.
- Shoulder slope**. The uppermost inclined surface at the top of a hillside. It is the transition zone from the back slope to the summit of a hill or mountain. The surface is dominantly convex in profile and erosional in origin.
- Shrink-swell** (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.
- Shrub-coppice dune**. A small dune that forms around shrubs or small trees.
- Silica**. A combination of silicon and oxygen. The mineral form is called quartz.
- Silt**. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.
- Siltstone**. Sedimentary rock made up of dominantly silt-sized particles.
- Similar soils**. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.
- Sinkhole**. A depression in the landscape where limestone has been dissolved.
- Site class**. A grouping of site indexes into five to seven production capability levels. Each level can be represented by a site curve.
- Site curve (50-year)**. A set of related curves on a graph that shows the average height of dominant or dominant and codominant trees for the range of ages on soils that differ in productivity. Each level is represented by a curve. The basis of the curves is the height of dominant or dominant and codominant trees that are 50 years old or are 50 years old at breast height.
- Site curve (100-year)**. A set of related curves on a graph that shows the average height of dominant or dominant and codominant trees for a range of ages on soils that differ in productivity. Each level is represented by a curve. The basis of the curves is the height of dominant or dominant and codominant trees that are 100 years old or are 100 years old at breast height.
- 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.
- Skid trails**. Pathways along which logs are dragged to a common site for loading onto a logging truck.
- Slash**. The branches, bark, treetops, reject logs, and broken or uprooted trees left on the ground after logging.
- Slickens**. Accumulations of fine-textured material, such as material separated in placer-mine and ore-mill operations. Slickens from ore mills commonly consist of freshly ground rock that has undergone chemical treatment during the milling process.
- 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.

Slippage (in tables). Soil mass susceptible to movement downslope when loaded, excavated, or wet.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey, the following slope classes are recognized:

Nearly level	0 to 2 percent
Gently sloping	2 to 4 percent
Moderately sloping.....	4 to 8 percent
Strongly sloping.....	8 to 15 percent
Moderately steep	15 to 30 percent
Steep	30 to 50 percent
Very steep	50 to 75 percent
Extremely steep.....	75 percent and higher

Slope (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Slow intake (in tables). The slow movement of water into the soil.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Small stones (in tables). Rock fragments less than 3 inches (7.6 centimeters) in diameter. Small stones adversely affect the specified use of the soil.

Sodic (alkali) soil. A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

Sodicity. The degree to which a soil is affected by exchangeable sodium. Sodicity is expressed as a sodium adsorption ratio (SAR) of a saturation extract, or the ratio of NA^+ to $Ca^{++} + Mg^{++}$. The degrees of sodicity and their respective ratios are:

Very slight	5-12:1
Slight	13-30:1
Moderate	31-45:1
Strong	46-90:1
Very strong.....	more than 90:1

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand.....	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand.....	0.10 to 0.05
Silt.....	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Species. A single, distinct kind of plant or animal having certain distinguishing characteristics.

Stone line. A concentration of coarse fragments in a soil. Generally, it is indicative of an old weathered surface. In a cross section, the line may be one fragment or more thick. It generally overlies material that weathered in place and is overlain by recent sediment of variable thickness.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Strath terrace. A surface cut formed by the erosion of hard or semiconsolidated bedrock and thinly mantled with stream deposits.

Stream channel. The hollow bed where a natural stream of surface water flows or may flow; the deepest or central part of the bed, formed by the main current and covered more or less continuously by water.

- Stream terrace.** One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel. It originally formed near the level of the stream and is the dissected remnants of an abandoned flood plain, streambed, or valley floor that were produced during a former stage of erosion or deposition.
- Stripcropping.** Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to soil blowing and water erosion.
- Structure, soil.** The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are: *platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grain* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).
- Stubble mulch.** Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind 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.** Any surface soil horizon (A, E, AB, or EB) below the surface layer.
- Summer fallow.** The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.
- Summit.** A general term for the top, or highest level, of an upland feature, such as a hill or mountain. It commonly refers to a higher area that has a gentle slope and is flanked by steeper slopes.
- Surface layer.** The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer" or the "Ap horizon."
- Surface soil.** The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.
- Tailwater.** The water directly downstream of a structure.
- 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.
- Terrace.** An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field is generally built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.
- Terrace (geologic).** A step-like surface, ordinarily flat or undulating, bordering a river, a lake, or the sea representing a former flood plain.
- Texture, soil.** The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand*, *loamy sand*, *sandy loam*, *loam*, *silt loam*, *silt*, *sandy clay loam*, *clay loam*, *silty clay loam*, *sandy clay*, *silty clay*, and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."
- Thin layer (in tables).** Otherwise suitable soil material too thin for the specified use.
- Till plain.** An extensive area of nearly level to undulating soils underlain by glacial till.
- Tilth, soil.** The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.
- Toe slope.** The outermost inclined surface at the base of a hill; part of a foot slope.
- Too arid (in tables).** The soil is dry most of the time, and vegetation is difficult to establish.
- Topsoil.** The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to

- topdress roadbanks, lawns, and land affected by mining.
- Toxicity** (in tables). Excessive amount of toxic substances, such as sodium or sulfur, that severely hinder establishment of vegetation or severely restrict plant growth.
- Trace elements**. Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.
- Trafficability**. The degree to which a soil is capable of supporting vehicular traffic across a wide range in soil moisture conditions.
- Tread**. The relatively flat terrace surface that was cut or built by stream or wave action.
- Tuff**. A compacted deposit that is 50 percent or more volcanic ash and dust.
- Understory**. Any plants in a forest community that grow to a height of less than 5 feet.
- Unstable fill** (in tables). Risk of caving or sloughing on banks of fill material.
- Upland** (geology). Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.
- Valley**. An elongated depressional area primarily developed by stream action.
- Valley fill**. In glaciated regions, material deposited in stream valleys by glacial meltwater. In nonglaciated regions, alluvium deposited by heavily loaded streams.
- Variation**. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.
- Very deep soil**. A soil that is more than 60 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Very shallow soil**. A soil that is less than 10 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Water bars**. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.
- Waterspreading**. Diverting runoff from natural channels by means of a system of dams, dikes, or ditches and spreading it over relatively flat surfaces.
- Water supplying capacity**. The total amount of water available in the soil for plant growth in a normal year from precipitation and from runoff from higher areas. Runoff and water lost to deep percolation are not included.
- 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.
- Windthrow**. The uprooting and tipping over of trees by the wind.



USDA United States
Department of
Agriculture

Natural
Resources
Conservation
Service

In cooperation with
United States
Department of
Agriculture, Forest
Service; United States
Department of
Interior, Bureau of Land
Management and
Bureau of Indian Affairs;
and University of
Nevada Agricultural
Experiment Station

Soil Survey of Humboldt County, Nevada, East Part Part II (vol I)

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Soil Survey of

Humboldt County, Nevada, East Part

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

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

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

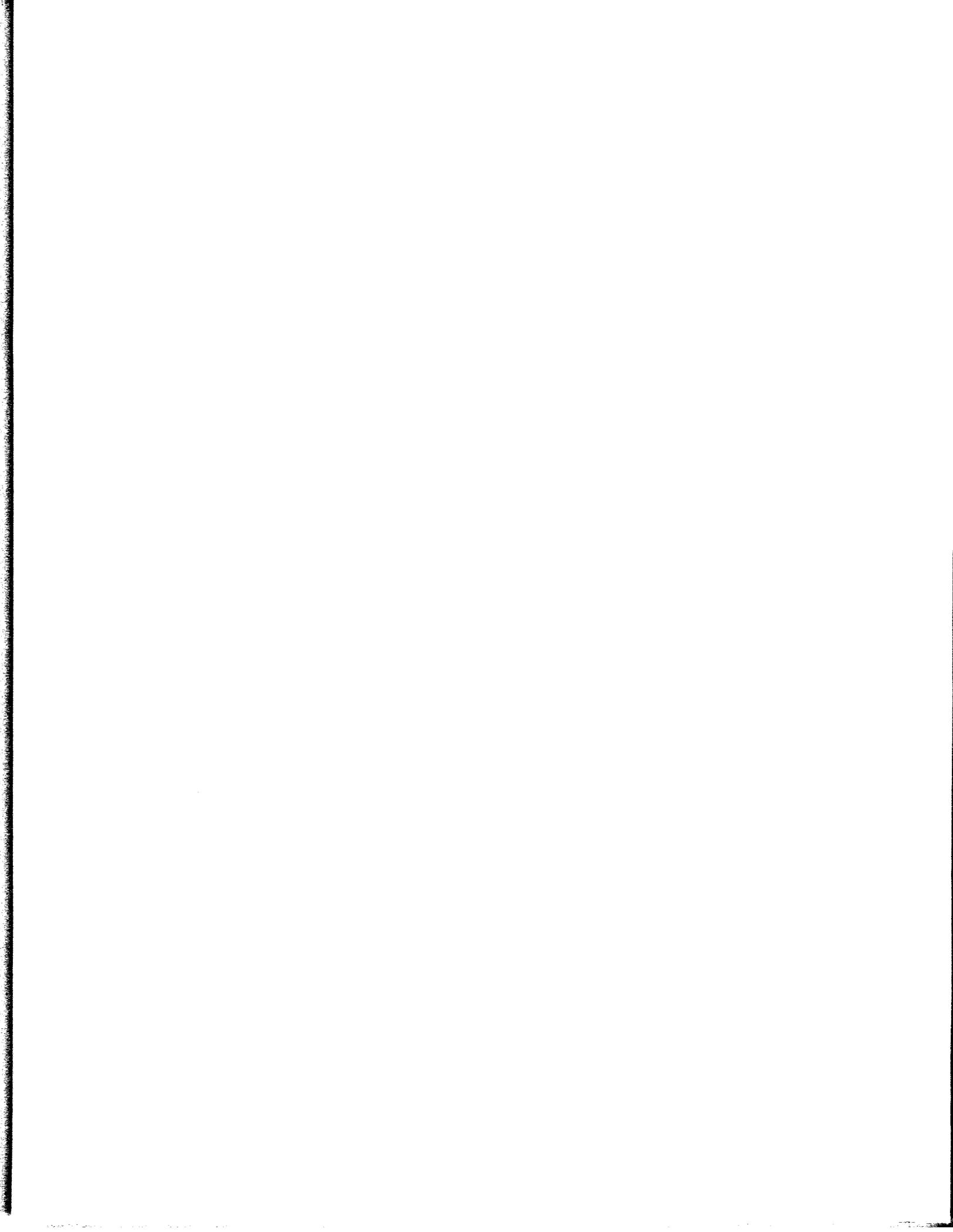
Interpretative ratings help engineers, planners, and others to understand how soil properties influence important nonagricultural uses, such as building site development and construction materials. The ratings indicate the most restrictive soil features affecting the suitability of the soils for these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

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

Planners and others using soil survey information can evaluate the effect of specific and 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, trees, and shrubs.



Crops and Pasture

General management needed for crops and pasture is suggested in this section. The system of land capability classification used by the Natural Resources Conservation Service is explained. The estimated yields of the main crops and pasture plants are listed for each soil in table 5 at the back of this publication.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading "Detailed Soil Map Units" in Part I of this Publication and in the "Soil Properties" portion of Part II. Specific information can be obtained from the local office of the Natural Resources Conservation Service or Cooperative Extension.

Yields per Acre

The average yields per acre that can be expected of the principal irrigated crops under a high level of management are shown in table 5, "Land Capability and Yields per Acre of Crops." In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of each map unit also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations are also considered.

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 management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage;

control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the table are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or Cooperative Extension can provide information about the management and productivity of the soils for those crops.

Pasture and Hayland Interpretations

Under good management, proper grazing is essential for the production of high quality forage, stand survival, and erosion control. Proper grazing helps plants to maintain sufficient and generally vigorous top growth during the growing season. Brush control is essential in many areas, and weed control generally is needed. Rotation grazing and renovation also are important management practices.

Yield estimates are often provided in animal unit months (AUM), the amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Information about forage yields other than those shown in table 5, "Land Capability and Yields per Acre of Crops" can be provided by the local office of the Natural Resources Conservation Service or Cooperative Extension.

Land Capability Classification

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

In the capability system, as described in "Land Capability Classification" (17), soils generally are grouped at three levels: capability class, subclass, and unit. These levels indicate the degree and kinds of limitations affecting mechanized farming systems that produce the more commonly grown field crops, such as corn, small grain, cotton, hay, and field-grown vegetables. Only class and subclass are used in this survey.

Capability classes, the broadest groups, are designated by Roman numerals I through VIII. The numerals indicate progressively greater limitations and narrower choices for practical use.

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

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

Areas in class VIII are generally not suitable for crops, pasture, or woodland without a level of management that is impractical. These areas may

have potential for other uses, such as recreational facilities and wildlife habitat.

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

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

The irrigated capability classification of each farmland map unit is given in table 5, "Land Capability and Yields per Acre of Crops."

Erosion Factors

Soil erodibility factors Kw and Kf quantify the susceptibility of soil to detachment by water. A wind erodibility group (WEG) is a grouping of soils that have similar properties affecting their resistance to soil blowing. The Wind Erodiability Index (I) is based on the WEG and is used in the wind erosion equation. Soil erodibility factors Kw and Kf are used in the Revised Universal Soil Loss Equation. The procedure for predicting soil loss is useful in guiding the selection of soil and water conservation practices.

Soil Erodiability Factors Kw and Kf

Factor Kw shows the erodibility of the whole soil, and factor Kf shows the erodibility of only the fine-earth fraction, the material less than 2.0 millimeters in diameter. The soil erodibility factor indicates the susceptibility of a soil to sheet and rill erosion by water. The soil properties that influence erodibility are those that affect the infiltration rate, the movement of water through the soil, and the water storage capacity of the soil and those that allow the soil to resist dispersion, splashing, abrasion, and the transporting forces of rainfall and runoff. The most

important soil properties are the content of silt plus very fine sand, the content of sand coarser than very fine sand, the content of organic matter, soil structure, and permeability.

Wind Erodibility Groups

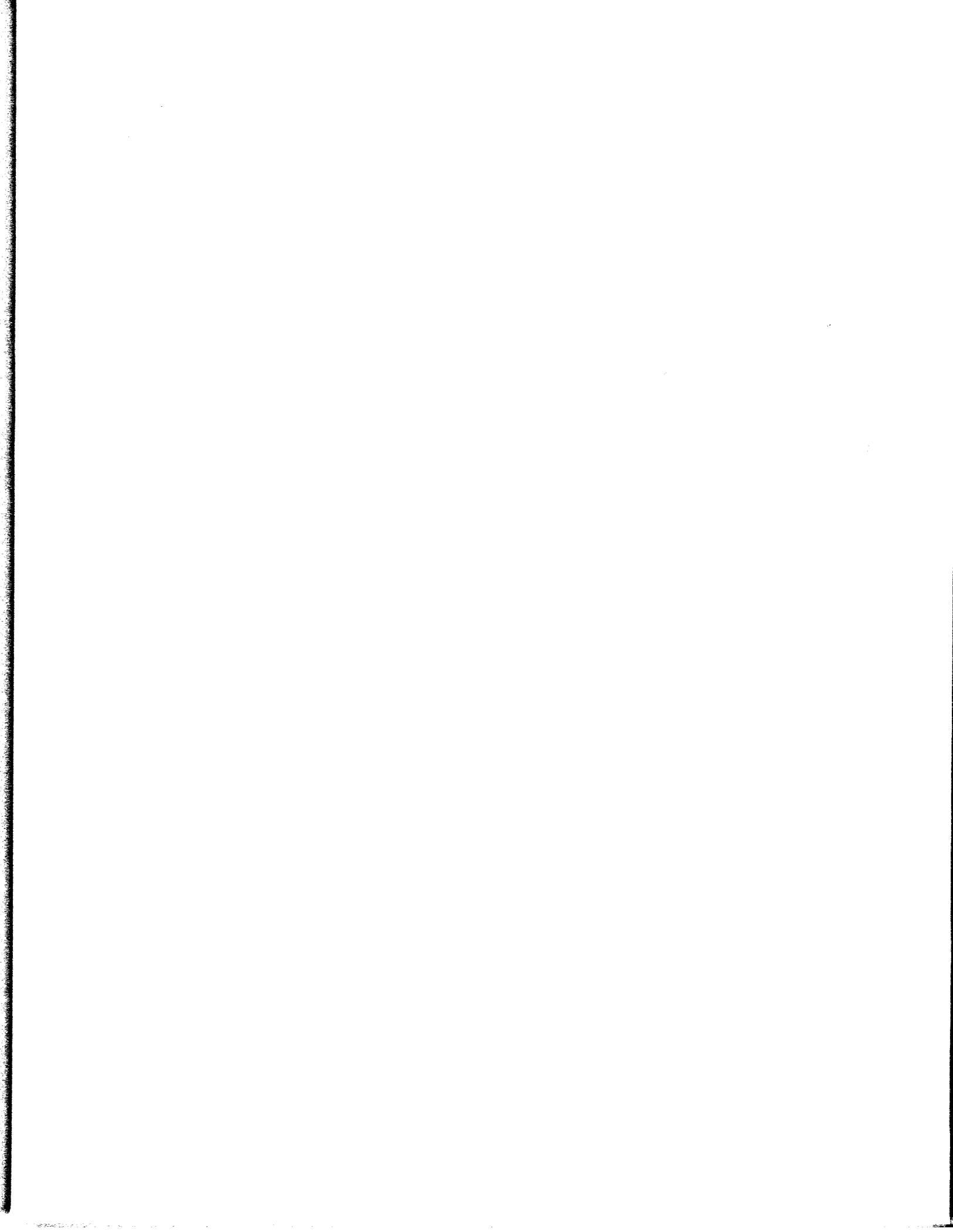
Soils are assigned wind erodibility groups on the basis of the properties of the surface layer. The properties that are most important with respect to soil blowing are soil texture, content of organic matter, calcium carbonate, reaction, content of rock fragments, and aggregate stability. Wind erodibility is inversely related to the percentage of dry surface soil aggregates larger than 0.84 millimeter in diameter. From this percentage, the wind erodibility index factor (I) is determined.

Soil Loss Tolerance (T) Factor

The annual Soil Loss Tolerance (T) is an estimate of

the maximum rate of erosion that can occur without affecting crop productivity. The T factor is expressed in tons of soil loss per acre per year. Values of 1 to 5 are used. T values are assigned according to properties of limiting subsurface soil layers. The designation of a limiting layer implies that the material above the layer has more favorable properties for crop production. The criteria for assigning T are based on the severity of physical or chemical properties of subsurface layers, the climatically influenced properties of soil moisture and temperature, the economic feasibility of utilizing management practices to overcome limiting layers or conditions, and the depth to the limiting layer.

Additional information about wind erodibility groups and I, Kw, Kf, and T factors can be obtained from local offices of the Natural Resources Conservation Service or Cooperative Extension.



Rangeland And Grazeable Woodland Resource Management

In this soil survey report, the term "rangeland" refers to a kind of land rather than a land use. Areas of rangeland provide many important resource values. They act as vast watersheds and provide habitat for wildlife, livestock forage, and opportunities for recreation. The resource values of rangeland are intricately related to each other and are often directly affected by rangeland management. Because of the interrelationships among rangeland resources, rangeland managers should consider all resource values when planning range improvements.

About 95 percent of the acreage in this survey area is rangeland. Livestock grazing is the principal agricultural use of the rangeland. Livestock operations are mostly cow-calf or cow-calf-sheep enterprises. Ranches range from a few hundred to several thousands acres in size. They rely heavily on permitted use of public lands. Most of the rangeland within the survey area is administered by the Bureau of Land Management. The Bureau of Indian Affairs has management responsibility for the rangeland within Indian reservations.

Soil-Site Correlation

During the course of this soil survey, ecological sites were correlated with the soils identified within the survey area. These correlations are based on the current understanding of soil-plant-climate relationships in the survey area. Soil properties that affect moisture supply and plant nutrients have the greatest influence on the productivity of range plants. Soil reaction, content of salts or lime, and topographic position are also important. The relationship of climate to vegetation and soils is considered in the classification of soils and in soil mapping criteria. In areas that have similar climate and topography, differences in the kind and amount of vegetation produced on rangeland are closely related to the kind of soil. Ecological sites can

generally be determined from soil maps and map unit legends developed for the survey area.

Range Condition

Mining is the major industrial use of rangeland in the survey area and has played an important role in the history of the area. During the mining booms of the 1870's, herds of cattle, sheep, oxen, horses, and burros were brought to eastern Humboldt County to be used as a source of power and feed for the developing mining communities. Heavy grazing pressure during these boom periods depleted native stands of forage throughout much of the survey area.

The early devastation of rangeland plant communities through uncontrolled livestock grazing ended long ago, but severely depleted areas still reflect the abuses of early settlement. In the most severely disturbed areas, palatable shrubs generally have been replaced by less desirable shrubs and many native perennial grasses and forbs have been replaced by alien or introduced annual grasses and forbs. Recovery of the plant community has been most evident where previous abuses were limited. The greater the level of deterioration, the longer the period of recovery. Although present-day rangeland production and plant diversity in the survey area are generally less than optimal, the overall condition of the rangeland is much improved from what was common in the early 1900's.

Range condition is determined by a comparison of the present plant community with the natural potential plant community on a particular rangeland ecological site. The more closely the existing community resembles the potential plant community, the higher the range condition. Range condition is an ecological rating only. It does not have a specific meaning that pertains to the present plant community for a given use. Ratings of range

condition alone do not indicate whether the present plant community is improving or deteriorating in relation to its potential. The trend in range condition is a measure of the direction of change in the condition. It is an expression of the effects of current use. The present range condition is a reflection of the accumulated effects of past use. Once the potential plant communities have been identified and the present range condition has been determined, monitoring the trend in range condition over time can indicate whether management objectives are being met.

Rangeland Management

Range management requires a knowledge of the kinds of soil and of the natural potential plant communities the soils in a given area can support. It also requires an evaluation of the present range condition. For most rangeland plant communities, good management can improve the present condition and productivity of the range and can help to prevent accelerated erosion. Proper management of rangeland depends on many factors. The season of grazing use, the kind of grazing animal, the intensity and distribution of grazing, and the range resource potential are important management considerations. Multiple-use management that meets present and future needs requires extensive knowledge of the capabilities and limitations of the range resources. An understanding of the soil properties and dynamics of native plant communities is fundamental in applying ecological principles to the evaluation and management of rangeland.

Generally, the objective of range management is to manage grazing so that the plants growing on a site are about the same in kind and amount as the natural potential plant community for that site. Such management generally results in the optimum production of vegetation, conservation of water, and control of erosion. To meet a special need or a specific use, however, it may be desirable to manage for a plant community other than the potential plant community for the site. Care must always be taken not to increase the susceptibility to erosion. Future uses and the relative ability of given sites to respond to management should be considered if the management objective is to establish a plant community other than the potential plant community.

Desirable forage plants of many plant communities within the survey area have been greatly depleted or even eliminated by excessive and untimely grazing.

Generally, perennial grasses have decreased in abundance and woody plants have increased. The productivity of forage plants is below the production potential on many sites. Uneven livestock distribution has resulted in both overuse and underuse of the native forage.

An increase in the abundance and size of shrubs and an extensive invasion of cheatgrass (an introduced annual grass) have reduced the amount of soil moisture and nutrients available to perennial grasses and forbs. In areas where the range condition has not excessively deteriorated and an adequate population of desirable perennial grasses and forbs is available to respond to a release from plant competition, brush management can be effective in reversing the trend toward an increasing dominance of woody vegetation.

Abusive grazing of riparian vegetation by livestock can reduce water quality, eliminate streamside shrubs, cause soil compaction, accelerate erosion, and break down streambanks. Proper management of the rangeland in the survey area requires that special attention be given to riparian zones. Fortunately, riparian communities often respond to improved livestock management more rapidly than upland plant communities. Grazing treatments in riparian areas vary with the stability of the riparian plant community and the condition of the adjacent upland plant communities.

Rangeland Seeding

Rangeland seeding may be required following the removal of woody vegetation in areas where desirable understory plants are scarce or are not included in the present plant community. Revegetation also may be necessary for critical area treatment following a wildfire or other major disturbance. Maximum grazing capacity can be achieved in seeded stands where the objective of management is uniform grazing of the stands and prevention of the concentration of livestock. Additional water developments and fencing may be required to meet management objectives.

The success of range seeding depends on the amount of moisture available during the growing season. Even in areas where adapted species are planted and improved seeding and land treatment techniques are applied, the success of range seeding is strongly influenced by rainfall. The distribution and amount of precipitation in the survey area fluctuate widely from one year to the next. Years of below normal precipitation are relatively frequent, and the risk of seeding failure caused by the

unpredictability of climate should be acknowledged in addition to critical soil properties that affect seeding success.

Each soil in the survey area is rated in table 6, "Suitability for Rangeland Seeding." The criteria used in the development of these ratings are available from the local Nevada office of the Natural Resources Conservation Service. Where critical area treatment is necessary, providing a plant cover that helps to prevent accelerated erosion may be advantageous on soils that are poorly suited to range seeding. The plants that are suited to the soils in the area to be treated should be selected for seeding.

More specific management concerns are addressed under the heading "Plant Communities in eastern Humboldt County," later in this section. Additional information about rangeland management can be obtained from local offices of the Natural Resources Conservation Service or Cooperative Extension.

Wildlife Considerations

Reducing the extent of brush cover can benefit many game and nongame wildlife species where the habitat needs of those animals are properly identified and planned for in the manipulation of vegetation. For instance, extensive areas dominated by big sagebrush provide marginal habitat for pronghorn antelope. The habitat can be improved by measures that decrease the density and height of the sagebrush. The habitat for mule deer can be improved by removing big sagebrush and thus enhancing the diversity of understory grasses and forbs or increasing the production of green forage on transitional range that has an excessive cover of shrubs.

For other species, however, brush removal may be detrimental. Sage grouse is a habitat-specific bird, relying primarily on sagebrush to meet its life requirements. Plans for the manipulation of sagebrush stands on range inhabited by sage grouse should provide for the maintenance of suitable grouse habitat, especially nesting habitat near strutting grounds. The optimum nesting habitat for sage grouse is one in which the crown cover of sagebrush that is less than 30 inches high is 20 to 40 percent. Treatment of the sagebrush that reduces the cover from 40 to 20 percent may not seriously degrade the nesting habitat and commonly improves the quality of forage for sage grouse.

In an assessment of how the manipulation of vegetation affects wildlife, "edge" habitat is an

important consideration. The structure and dominance of plants that remain after manipulation differ with the method of treatment. Fire removes all of the vegetation, including the skeletons or woody portions of shrubs, and thus eliminates the structure of woody vegetation from the treated area. Prescribed burning may enhance the habitat for a number of wildlife species. Mule deer and many nongame species select recently burned areas for feeding. Brush treatment with herbicides leaves the dead skeletons of shrubs and retains the shrub structure. Herbicides may kill broad-leaved forbs in the shrub understory, which are staples in the diet of many game and nongame species. Chaining and, to a lesser degree, brush beating change the vegetative structure from tree/shrub or shrub to grassland, and the residue they leave on the ground creates habitat for small mammals.

Many wildlife species in the survey area depend on riparian plant communities during much of the year. These plant communities support wildlife not common to desert ecosystems, such as short-eared owls, Pacific tree frogs, and long-tailed weasels. Riparian communities also provide islands of habitat in desert environments for migrating birds. Nuthatches, warblers, and other species that nest in forest ecosystems migrate to desert riparian zones in spring and fall.

Livestock water developments can be beneficial to wildlife if the water is available when the wildlife species occupy the area. Forage for wildlife can be enhanced if adapted forbs are included in a rangeland seeding.

More specific wildlife management concerns are addressed under the heading "Plant Communities in Eastern Humboldt County." Additional information about wildlife management can be obtained from local offices of the Natural Resources Conservation Service, Cooperative Extension, or Nevada Division of Wildlife.

Plant Communities in Eastern Humboldt County

A rangeland ecological site is a distinctive kind of rangeland that differs from other kinds of rangeland in its ability to produce a characteristic natural plant community. An ecological site is the product of all environmental factors responsible for its development. It can support a native plant community typified by an association of species that differs from the potential plant community of other

ecological sites in the kind or proportion of species or in total production. Disturbances, such as drought, fire, and grazing by native fauna, and the damage caused by insects and disease are recognized as natural factors in the development of native plant communities.

The appendix in the section "Rangeland Plants and Woodland Understory" shows the rangeland plants and woodland understory for each soil and contrasting inclusion in the detailed soil map units, the rangeland or woodland ecological site, the common plant name and scientific plant symbol for the characteristic vegetation, the average percent composition for each species in the potential plant community, the rangeland or woodland ecological site, and the total annual production of vegetation in favorable, normal, and unfavorable years. The characteristic vegetation, which consists of the grasses, forbs, shrubs, and immature trees that make up most of the potential plant community for each soil, is listed by common name. For rangeland, the expected percentage of the total annual production is given for each species making up the characteristic vegetation. The amount that can be used as forage depends on the kinds of grazing animals, the grazing season, and the availability of forage. Many plants, trees, and shrubs are inaccessible to foraging animals. For woodland, the percentage of the total annual production is not given because of a wide variation of production under different tree canopies. The presence of a plant species in the understory vegetation is shown by an "X" in the composition section of the table.

Total potential production is the amount of vegetation that can be expected to grow annually on well managed rangeland or woodland that supports the potential natural community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's production 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, above average amounts and optimum timing of precipitation during periods of warm 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.

Riparian areas or meadows are interspersed throughout the survey area. Riparian vegetation grows on the flood plains along perennial streams.

Stringer meadows are along spring-fed stream channels where moisture is available to plants throughout most of the growing season. Meadow vegetation also grows on the periphery of seeps and springs. Although they make up a small acreage in the survey area, the riparian zones are important because they provide free water, which improves the productivity of the riparian vegetation and lengthens the growing season of the vegetation. The zones are characterized by diverse plant species and a structural diversity of vegetation. The zones along stream channels are typically linear. The linear nature of the zones maximizes the edge effect between the zones and the adjacent uplands. An "edge," or ecotone, is a transition between plant communities or a joining of different vegetative structures within plant communities. It commonly is richer in wildlife than either of the adjoining communities.

Eastern Humboldt County is in the north-central part of the Basin and Range Physiographic Province. The major plant associations in the survey area typify the general zonation of vegetation common in the Great Basin Region. Valley floors and the lower piedmont slopes are dominated by salt-desert shrub plant communities. Above the salt-desert shrub zone, sagebrush-grass plant communities are prevalent in areas where the mean annual precipitation is 8 inches or more.

Salt-desert shrub communities normally reflect either a climatically dry environment where the mean annual precipitation is less than 8 inches or physiologically dry soil conditions. High concentrations of salts that interfere with the uptake of water by plants can create physiologically dry soil conditions. Representative shrubs of the salt-desert shrub communities are shadscale, bud sagebrush, winterfat, and Douglas rabbitbrush. The common grasses include Indian ricegrass, bottlebrush squirreltail, Sandberg bluegrass, and desert needlegrass.

The salt-desert shrub plant communities in the survey area include stands dominated by a single shrub species and stands that support relatively heterogeneous mixtures of shrubs and grasses. The vegetation is generally sparse, normally covering less than 20 percent of the surface. Wind erosion and water erosion are hazards because of the naturally sparse plant cover in most areas. The interspaces between plants in salt-desert shrub communities commonly are stabilized by surface pavements of rock fragments, by a puddled and crusted soil surface, or by microphytic (algae)

surface crusts. These protective features can be damaged by livestock or off-road vehicle traffic.

Salt-desert shrub plant communities are most valuable as winter range for livestock. They can produce high-quality winter forage and are usually subject to only light snowfall. Most of the desirable forage species in these communities are adversely affected by grazing in late winter (March and April), heavy use, or both. Where native rangeland communities are grazed in winter, an emergency supply of feed should be readily available to carry livestock through periods of unusually severe weather.

Properly regulated grazing management can enhance the long-term productivity of salt-desert shrub plant communities. This management includes deferred grazing during critical growth periods in late winter, rotational grazing, and control of the intensity and season of use. Fencing, herding, water hauling, and controlling livestock access to watering facilities can achieve a better distribution of grazing. Because of the harsh environment of the salt-desert shrub zone, manipulation of vegetation and revegetation projects generally are not advisable.

Salt-desert shrub communities provide habitat for a wide variety of nongame species, including whiptail lizards, antelope ground squirrels, loggerhead shrikes, and Pacific rattlesnakes. Plant communities that are dominated by shadscale or winterfat and associated forbs and grasses provide important winter range for pronghorn antelope. Fencing can deter the migration of pronghorn antelope because these animals commonly do not jump. As a result, the lower wire of the fences should be high enough for antelope to crawl under. Where feasible, the fence lines should be routed so that they cause the least disruption to antelope travel. Livestock water developments are beneficial to antelope and other wildlife if the water is available when the animals occupy the area. Few mule deer use salt-desert shrub communities, which generally are unimportant in deer management. Feral horses use these communities in winter.

Within the salt-desert shrub zone are low areas that commonly receive extra moisture as runoff from higher landscape positions and as shallow, low-velocity overflow during periods of runoff. Black greasewood, basin big sagebrush, and basin wildrye are important plants on these sites. When in good condition, these plant communities can produce more than 2,000 pounds of basin wildrye per acre. When in poor condition, however, they typically produce less than 500 pounds per acre. The potential for increasing the production of basin

wildrye is good on many sites in poor or fair condition in the survey area. Basin wildrye provides standing dried forage during its fall and winter dormancy and can provide calving areas in late winter. Mule deer, pygmy rabbits, and northern harrisers inhabit basin wildrye communities throughout the year.

Other plant communities that reflect extra moisture conditions are adjacent to valley floor playas. These areas may have a high water table during periods of runoff. Black greasewood, shadscale, inland saltgrass, and basin wildrye are the characteristic plants on these sites.

Plant communities that are dominated by black greasewood provide thermal cover for many species of wildlife but have limited value for big game. Because of its spines and coarse structure, black greasewood provides protective cover to nesting birds and small mammals. Although this species is not a preferred forage plant for livestock, cattle and sheep eat the succulent spring growth. On late fall and winter ranges, the fruit of black greasewood and shadscale provides nutritious and palatable feed. The soluble oxalates in black greasewood may be harmful to livestock, especially sheep, if the new growth is excessively grazed in spring.

As snow melts in spring, runoff commonly drains into valley floor basins. It remains for short periods, providing nesting and feeding habitat for some waterfowl. Playas containing water in spring are important resting places for migrating waterfowl. Sand dunes formed through the deposition of windblown sediment are commonly on the leeward side of the playas in this survey area. Although of limited extent, partially stabilized sand dunes provide important habitat for both predator and prey vertebrate wildlife. Kangaroo rats, kit foxes, and bobcats inhabit the sand dunes.

Sagebrush-grass plant communities are at the lower elevations (4,500 to 6,000 feet) in the survey area. The average annual precipitation at these elevations is between 8 and 10 inches.

Wyoming big sagebrush, Lahontan sagebrush (a newly recognized subspecies of low sagebrush), and, to a lesser extent, basin big sagebrush are the dominant woody sagebrush plants at the lower elevations in the survey area. Cool-season perennial grasses are potentially the dominant herbaceous plants in the sagebrush-grass plant communities. Thurber needlegrass, Indian ricegrass, bottlebrush squirreltail, and Sandberg bluegrass are important cool-season bunch grasses. Grazing pressure has been severe on the sagebrush-grass plant communities at the lower elevations. These plant

communities are the first to begin growth, or "greenup," during the warming periods of early spring and have traditionally been used for spring grazing by livestock. Heavy grazing spring after spring will eventually eliminate the perennial understory of grasses and forbs.

Grazing management practices can enhance the long-term productivity of sagebrush-grass communities. These practices include deferred grazing during critical growth periods in spring, rotational grazing, and control of the intensity and season of use. Fencing, herding, water hauling, and controlling livestock access to watering facilities can achieve a better distribution of grazing and facilitate grazing management.

Very few sources of perennial water are available in the sagebrush-grass zone at the lower elevations. Therefore, water developments and watering facilities are key elements in grazing management. Also, they can be of significant value to wildlife. Where the range condition has not deteriorated excessively and an adequate population of desirable perennial grasses and forbs is available to respond to a release from plant competition, brush management can greatly enhance the production of forage for livestock and wildlife.

The selection of plants available for rangeland seeding in the 8- to 10-inch precipitation zone is limited. Suitable species that are tolerant of early spring grazing, however, can be seeded. These species can play a key role in the management of grazing on the adjacent native sagebrush-grass and salt-desert shrub plant communities. Years of below normal precipitation are relatively frequent in this zone. Thus, the factors to be considered in managing rangeland seeding include the risk of seeding failure caused by climate.

Although the sagebrush-grass communities at the lower elevations may provide transitional spring range to pronghorn antelope moving from winter to summer ranges, plant communities that are dominated by big sagebrush are not heavily used by the antelope. Fencing can deter migration of the antelope because these animals commonly do not jump. As a result, the lower wire of the fences should be high enough for the antelope to crawl under. Where feasible, the fence lines should be routed so that they cause the least disruption to antelope travel. Livestock water developments are beneficial to wildlife, especially deer and antelope, if the water is available when the animals are in the area.

During severe winters in areas of the sagebrush-grass communities at the lower elevations, sage

grouse may feed on sagebrush that has not been covered by snow. Heavy snow at the higher elevations forces chukar partridge to move into these areas in search of food. The sagebrush-grass communities at the lower elevations are used primarily by mule deer and feral horses as winter range or as transitional range in spring. Spring grazing by livestock in areas used by deer as winter range should be managed so that the turn out of livestock is delayed until after spring "greenup" and the migration of most of the deer.

Sagebrush-grass communities are at intermediate elevations (5,500 to 7,000 feet) in the survey area. The average annual precipitation at these elevations is between 10 and 14 inches.

Wyoming big sagebrush dominates the shrub canopy of the mid-elevation plant communities on the warmer, drier exposures. Basin big sagebrush is most common on the deeper soils at the lower elevations in this precipitation zone. Mountain big sagebrush is prevalent on the north aspects at the lower elevations of the zone and grows on all aspects at the higher elevations. Low sagebrush is the dominant dwarf sagebrush at the mid and upper elevations in the survey area. Bluebunch wheatgrass, Thurber needlegrass, Canby bluegrass, Sandberg bluegrass, and basin wildrye are the major perennial grasses associated with these mid-elevation sagebrush-grass communities. Antelope bitterbrush is an important shrub in many plant communities at these elevations.

The mid-elevation sagebrush-grass communities are suitable for grazing by livestock in summer and fall. Deferred grazing during critical growth periods in spring and early summer, rotational grazing, and control of the intensity and season of use can enhance the long-term productivity of these communities. Fencing, herding, and strategically locating livestock watering facilities help to achieve a better distribution of grazing and facilitate grazing management. Relatively few sources of perennial water are available in areas of the mid-elevation sagebrush-grass zone. As a result, water developments and watering facilities are key elements in grazing management and can be of significant value to wildlife.

Wyoming big sagebrush communities at mid-elevations are used primarily as winter range by mule deer. They commonly provide habitat for Brewer's sparrow, black-tailed jackrabbits, and sagebrush lizards. They provide wintering areas for sage grouse. Low sagebrush communities provide important summer range for pronghorn antelope and brood-rearing habitat for sage grouse. Livestock

water developments can be beneficial to wildlife, especially deer and antelope, if the water is available when the animals are in the area. Mountain big sagebrush and low sagebrush communities provide spring, summer, and fall range for mule deer and feral horses.

Seasonal grazing by livestock removes old grass residue and exposes the regrowth of succulent green stems and leaves that provide food for mule deer. The steep rock-faced cliffs common to these mid elevations have ledges, joints, cracks, and occasional caves and thus provide safe sites for birds and small mammals to nest and rear their young. The common nongame species are sage thrasher, the Great Basin gopher snake, and desert mouse. Areas of exposed lava flow rock, natural breaks in the cliffs, and the associated talus commonly are used as travel lanes by wildlife, including mule deer.

Brush management practices can be very effective in increasing the production of native forage in the mid-elevation sagebrush-grass zone. They can be beneficial to wildlife as well as livestock. Opening up large, homogeneous stands of sagebrush commonly improves the habitat for wildlife, such as mule deer and pronghorn antelope. Rangeland seeding may be required following the removal of woody vegetation where desirable understory plants are scarce or are not included in the present plant community. A number of forbs and grasses are suitable for dryland seeding in the 10-to 14-inch precipitation zone. Including suitable forbs in the seeding mixture helps to provide additional forage for wildlife, such as pronghorn antelope, mule deer, and sage grouse.

Livestock commonly concentrate on the woodland sites, taking advantage of the shade and shelter provided by the tree overstory. These sites also provide habitat for nongame wildlife species, including the bushy-tailed woodrat, the blue-grey gnat-catcher, and the American kestrel; thermal cover for mule deer; and habitat for small mammals and birds.

Areas that have a heterogeneous mixture of vegetative types, including grassland, low shrub, and tall shrub communities, generally provide an optimum diversity of wildlife habitat. These types of vegetative complexes are common in the sagebrush-grass zones at the intermediate and upper elevations. Moderate browsing by cattle on antelope bitterbrush in fall can enhance the vigor and growth of the bitterbrush, which is later available for grazing by mule deer and antelope.

Stringer meadows are along spring-fed stream channels in the sagebrush-grass zones at the

intermediate and upper elevations. Meadow vegetation also grows on the periphery of seeps and springs. Wet meadows adjacent to sagebrush stands are important as brood-rearing areas for sage grouse. During the first weeks after leaving the nest, sage grouse chicks eat mainly insects (ants and beetles) and the succulent forbs that are common in wet meadows. Grazing of the meadows by cattle can improve the quality of feed for sage grouse if a period of regrowth is provided for the key forb species. Grazing increases the succulence of the forbs by interrupting the maturation of the plant tissues. The succulent or young leaf tissue is higher in protein and lower in fiber than mature tissue. As they seek sources of succulent forbs, sage grouse select meadows that have been grazed by cattle. Sage grouse chicks find food and cover in properly grazed meadows, which appear patchy because of different stubble heights remaining after livestock have grazed the meadows.

Improper grazing of riparian vegetation by livestock can cause gully erosion. This erosion, in turn, can result in lower water tables, the drying out of meadows, and the loss of valuable wildlife and livestock forage. Grazing management strategies that are sensitive to the development and maintenance of healthy riparian areas are needed.

The uppermost elevations of the survey area (7,000 to 9,700 feet) typically support high-elevation sagebrush-grass plant communities. The average annual precipitation ranges from 14 to more than 18 inches. Mountain big sagebrush and low sagebrush dominate the shrub canopy of these plant communities. The shrub understory grasses include Idaho fescue, western needlegrass, mountain brome, Columbia needlegrass, Letterman needlegrass, basin wildrye, slender wheatgrass, and bluebunch wheatgrass. Mountain browse species, such as snowberry, serviceberry, and antelope bitterbrush, are common in the shrub overstory. Curlleaf mountainmahogany stands are at the highest elevations, on mountain summits, and the upper side slopes. Areas of aspen woodland are common in concave pockets and along riparian zones.

Plant communities on the high-elevation sites are potentially very productive and normally respond rapidly to management. These sites remain cold and wet through spring and into early summer. They are used as summer range for livestock. Grazing should be delayed until the surface layer has dried sufficiently for compaction to be limited. Snow often blankets these sites by late fall, further restricting the period of livestock grazing. Steeply sloping areas are common throughout the high-

elevation sagebrush-grass zone. Livestock tend to overuse the less sloping areas unless grazing is managed for an even distribution of grazing. Fencing, properly locating watering facilities, and herding force livestock to use areas that otherwise might remain ungrazed. Salt and mineral blocks should be placed away from water.

Mule deer use the high-elevation plant communities for summer range. North-facing slopes that have a patchwork of dense stands consisting of mountain browse are important deer-fawning areas. These dense stands should be maintained because they provide cover for wildlife. Areas of aspen woodland provide important cover for wildlife and are a source of shade for livestock and wildlife.

Seeps and springs are common at the high elevations. Water for livestock generally is readily available. Additional water developments may be needed, however, to distribute the livestock evenly. Developed springs, pipelines, and storage tanks are dependable means of supplying water. Seeps and springs developed to provide livestock water can also be beneficial to wildlife. Excluding livestock by fencing the meadow around a seep or spring and piping the water to troughs or other storage facilities outside the enclosure help to protect the meadow

vegetation grazed by wildlife. Enough water must be retained in the fenced seep or spring area to maintain the meadow vegetation. Small meadows can be developed and maintained by piping overflow water from livestock troughs into fenced areas.

Many naturally occurring meadows in the sagebrush-grass zones at the mid and higher elevations have been heavily invaded by big sagebrush. The sagebrush depletes moisture from the meadows. If the sagebrush is removed, the quantity of water and the duration of waterflow increase as grasses return to the meadows. Prescribed burning of dense sagebrush stands can be an economical means of brush management in the high-elevation sagebrush-grass zone. Brush management practices should be designed so that enough of the shrub canopy remains near meadows to provide cover for wildlife.

Rangeland seeding of the high-elevation plant communities is usually not necessary. In most areas, the remnant population of desirable forbs and grasses is sufficient to respond to grazing management and a release from shrub competition. Where rangeland seeding is needed, a wide variety of suitable species can be planted because of the relatively high annual precipitation in this zone.

Forest Land

Table 7, "Woodland Management and Productivity" can be used by forest managers in planning the use of soils for wood crops. Only those soils suitable for wood crops are listed.

Woodland Ordination System

Table 7, "Woodland Management and Productivity" lists the ordination (woodland suitability) symbol for each soil. The ordination system is a nationwide uniform system of labeling soils or groups of soils that are similar in use and management. The primary factors evaluated in the woodland ordination system are productivity of the forest overstory tree species and the principal soil properties resulting in hazards and limitations that affect forest management. There are three parts of the ordination system: class, subclass, and group. The class and subclass are referred to as the ordination symbol.

Ordination Class Symbol

The first element of the ordination symbol is a number that denotes potential productivity in terms of cubic meters of wood per hectare per year for the indicator tree species. The larger the number, the greater the potential productivity. Potential productivity is based on site index and the corresponding culmination of mean annual increment. For example, the number 1 indicates a potential production of 1 cubic meter of wood per hectare per year (14.3 cubic feet per acre per year) and 10 indicates a potential production of 10 cubic meters of wood per hectare per year (143 cubic feet per acre per year).

Indicator species is a species that is common in the area and is generally, but not necessarily, the most productive on the soil. It is the species that determines the ordination class. It is the first species listed for a particular map unit in table 7, "Woodland Management and Productivity." This

table shows the productivity for all species where data have been collected.

Site index is determined by taking height measurements and determining the age of selected trees within stands of a given species. This index is the average height, in feet, that the trees attain in a specified number of years. This index applies to fully stocked, even-aged, unmanaged stands. The site indexes shown in table 7, "Woodland Management and Productivity" are averages based on measurements made at sites that are representative of the soil series. When the site index and forest land productivity of different soils are compared, the values for the same tree species should be compared. The higher the site index number, the more productive the soil for that species. Site index values are used in conjunction with yield tables to determine average annual yields. Indirectly, they are used to determine the productivity class in the ordination class symbol.

Ordination Subclass Symbol

The second element of the ordination symbol, or subclass, is a capital letter that indicates certain soil or physiographic characteristics that contribute to important hazards or limitations to be considered in management. The subclasses are defined as follows:

Subclass X indicates that forest land use and management are limited by stones or rocks.

Subclass W indicates that forest land use and management are significantly limited by excess water, either seasonally or throughout the year. Restricted drainage, a high water table, or flooding can adversely affect either stand development or management.

Subclass T indicates that the root zone has toxic substances. Excessive alkalinity, acidity, sodium salts, or other toxic substances impede the development of desirable species.

Subclass D indicates that forest land use and management are limited by a restricted rooting

depth. The rooting depth is restricted by hard bedrock, a hardpan, or other restrictive layers in the soil.

Subclass C indicates that forest land use and management are limited by the kind or amount of clay in the upper part of the soil.

Subclass S indicates that the soil is sandy, has a low available water capacity, and normally has a low content of available plant nutrients. The use of equipment is limited during dry periods.

Subclass F indicates that forest land use and management are limited by a high content of rock fragments that are larger than 2 millimeters and smaller than 10 inches. This subclass includes flaggy soils.

Subclass R indicates that forest land use and management are limited by excessive slope.

Subclass A indicates that no significant limitations affect forest land use and management.

Forest Land Management and Productivity

Information about the productivity and management of the forested map units in the survey area is given in table 7, "Woodland Management and Productivity."

Management Concerns

In table 7, "Woodland Management and Productivity," the soils are rated for the erosion hazard, the equipment limitation, seedling mortality, the windthrow hazard, and plant competition.

The *erosion hazard* is *slight* if the expected soil loss is small; *moderate* if some measures are needed to control erosion during logging and road construction; and *severe* if intensive management or special equipment and methods are needed to prevent excessive soil loss.

The *equipment limitation* is *slight* if the use of equipment is not limited to a particular kind of equipment or time of year; *moderate* if there is a short seasonal limitation or a need for some modification in the management of equipment; and *severe* if there is a seasonal limitation, a need for special equipment or management, or a hazard in the use of equipment.

Seedling mortality ratings are for seedlings that are from a good planting stock and that are properly planted during a period of average rainfall. A rating of *slight* indicates that the expected mortality of the planted seedlings is less than 25 percent; *moderate*, 25 to 50 percent; and *severe*, more than 50 percent.

Windthrow hazard is *slight* if trees in wooded areas are not expected to be blown down by commonly occurring winds; *moderate* if some trees are blown down during periods of excessive soil wetness and strong winds; and *severe* if many trees are blown down during periods of excessive soil wetness and moderate or strong winds.

Plant competition is *slight* if there is little or no competition from other plants; *moderate* if plant competition is expected to hinder the development of a fully stocked stand of desirable trees; and *severe* if plant competition is expected to prevent the establishment of a desirable stand unless the site is intensively prepared, weeded, or otherwise managed for the control of undesirable plants.

Potential Productivity

The potential productivity of merchantable or *common trees* is expressed as a site index, which is described under the heading "Ordination Class Symbol." Commonly grown trees are those that forest land managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability.

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 estimated data and test data in the "Soil Properties" section.

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 within a depth of 5 or 6 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 grain-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 or 6 feet of the surface, soil wetness, depth to a seasonal high water table, 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 kind 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

Table 8, "Building Site Development," shows the degree and kind of soil limitations that affect shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping. The limitations are considered *slight* if soil properties and site features generally are favorable for the indicated use and limitations are minor and easily overcome; *moderate* if soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations; and *severe* if soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases

in construction costs, and possibly increased maintenance are required. Special feasibility studies may be required where the soil limitations are severe.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for basements, graves, utility lines, open ditches, and other purposes. The ratings are based on soil properties, site features, and observed performance of the soils. The ease of digging, filling, and compacting is affected by the depth to bedrock, a cemented pan, or a very firm dense layer; stone content; soil texture; and slope. The time of the year that excavations can be made is affected by the depth to a seasonal high water table and the susceptibility of the soil to flooding. The resistance of the excavation walls or banks to sloughing or caving is affected by soil texture and depth to the water table.

Dwellings and small commercial buildings are structures built on shallow foundations on undisturbed soil. The load limit is the same as that for single-family dwellings no higher than three stories. Ratings are made for small commercial buildings without basements, for dwellings with basements, and for dwellings without basements. The ratings are based on soil properties, site features, and observed performance of the soils. A high water table, flooding, shrinking and swelling, and organic layers can cause the movement of footings. A high water table, depth to bedrock or to a cemented pan, large stones, and flooding affect the ease of excavation and construction. Landscaping and grading that require cuts and fills of more than 5 or 6 feet are not considered.

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 stabilized soil material; and a flexible or rigid surface. Cuts and fills generally are limited to less than 6 feet. The ratings are based on soil properties, site features, and observed performance of the soils. Depth to bedrock or to a cemented pan, a high water table, flooding, large stones, and slope affect the ease of excavating and grading. Soil strength (as inferred from the engineering classification of the soil), shrink-swell potential, potential for frost action, and depth to a high water table affect the traffic-supporting capacity.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. The ratings are based on soil properties, site features, and observed performance of the soils. Soil reaction, a high water table, depth

to bedrock or to a cemented pan, the available water capacity in the upper 40 inches, and the content of salts, sodium, and sulfidic materials affect plant growth. Flooding, wetness, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer affect trafficability after vegetation is established.

Sanitary Facilities

Table 9, "Sanitary Facilities," shows the degree and the kind of soil limitations that affect septic tank absorption fields, sewage lagoons, and sanitary landfills. It also shows the suitability of the soils for use as a daily cover for landfill.

Soil properties are important in selecting sites for sanitary facilities and in identifying limiting soil properties and site features to be considered in planning, design, and installation. Soil limitation ratings of *slight*, *moderate*, or *severe* are given for septic tank absorption fields, sewage lagoons, and trench and area sanitary landfills. Soil suitability ratings of *good*, *fair*, and *poor* are given for daily cover for landfill.

A rating of *slight* or *good* indicates that the soils have no limitations or that the limitations can be easily overcome. Good performance and low maintenance can be expected. A rating of *moderate* or *fair* indicates that the limitations should be recognized but generally can be overcome by good management or special design. A rating of *severe* or *poor* indicates that overcoming the limitations is difficult or impractical. Increased maintenance may be required.

Septic tank absorption fields are areas in which subsurface systems of tile or perforated pipe distribute effluent from a septic tank into the natural soil. The centerline of the tile is assumed to be at a depth of 24 inches. Only the part of the soil between depths of 24 and 60 inches is considered in making the ratings. The soil properties and site features considered are those that affect the absorption of the effluent, those that affect the construction and maintenance of the system, and those that may affect public health.

The ratings are based on soil properties, site features, and observed performance of the soils. Permeability, a high water table, depth to bedrock or to a cemented pan, and flooding affect absorption of the effluent. Large stones and bedrock or a cemented pan interfere with installation.

Unsatisfactory performance of septic tank absorption fields, including excessively slow absorption of effluent, surfacing of effluent, and hillside seepage, can affect public health. Ground water can be polluted if highly permeable sand and gravel or fractured bedrock is less than 4 feet below the base of the absorption field, if slope is excessive, or if the water table is near the surface. There must be unsaturated soil material beneath the absorption field to filter the effluent effectively. Many local ordinances require that this material be a certain thickness.

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, relatively impervious soil material. Aerobic lagoons generally are designed to hold the sewage within a depth of 2 to 5 feet. Relatively impervious soil material for the lagoon floor and sides is desirable to minimize seepage and contamination of local ground water.

Table 9, "Sanitary Facilities," gives ratings for the natural soil that makes up the lagoon floor. The surface layer and, generally, 1 or 2 feet of soil material below the surface layer are excavated to provide material for the embankments. The ratings are based on soil properties, site features, and observed performance of the soils. Considered in the ratings are slope, permeability, a high water table, depth to bedrock or to a cemented pan, flooding, large stones, and content of organic matter.

Excessive seepage resulting from rapid permeability in the soil or a water table that is high enough to raise the level of sewage in the lagoon causes a lagoon to function unsatisfactorily. Pollution results if seepage is excessive 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.

Trench sanitary landfill is an area where solid waste is disposed of by placing refuse in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil that is excavated from the trench. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. Soil properties that influence the risk of pollution, the ease of

excavation, trafficability, and revegetation are the major considerations in rating the soils.

Area sanitary landfill is an area where solid waste is disposed of by placing refuse in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil that is imported from a source away from the site. A final cover of soil at least 2 feet thick is placed over the completed landfill. Soil properties that influence trafficability, revegetation, and the risk of pollution are the main considerations in rating the soils for area sanitary landfills.

Both types of landfill must be able to bear heavy vehicular traffic. Both types involve a risk of ground-water pollution. The ratings in table 9, "Sanitary Facilities" are based on soil properties, site features, and observed performance of the soils. Permeability, depth to bedrock or to a cemented pan, a high water table, slope, and flooding affect both types of landfill. Texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium affect trench type landfills. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, a limitation rated slight or moderate may not be valid. Onsite investigation is needed.

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 suitability of a soil for use as cover is based on properties that affect workability and the ease of digging, moving, and spreading the material over the refuse daily during both wet and dry periods.

Soil texture, wetness, rock fragments, and slope affect the ease of removing and spreading the material during wet and dry periods. Loamy or silty soils that are free of large stones or excess gravel are the best cover for a landfill. Clayey soils are sticky or cloddy and are difficult to spread; sandy soils are subject to soil blowing.

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 final cover for a landfill should be suitable for plants. The surface layer generally has the best workability, more organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

Waste Management

Soil properties are important when organic waste is applied as fertilizer and wastewater is applied in irrigated areas. They also are important when the soil is used as a medium for the treatment and disposal of the organic waste and wastewater. Unfavorable soil properties can result in environmental damage.

The use of organic waste and wastewater as production resources results in energy and resource conservation and minimizes the problems associated with waste disposal. If disposal is the goal, applying a maximum amount of the organic waste or the wastewater to a minimal area holds costs to a minimum and environmental damage is the main hazard. If reuse is the goal, a minimum amount should be applied to a maximum area and environmental damage is unlikely.

Interpretations developed for waste management may include ratings for manure- and food-processing waste, municipal sewage sludge, use of wastewater for irrigation, and treatment of wastewater by slow rate, overland flow, and rapid infiltration processes.

Specific information regarding waste management is available at the local office of the Natural Resources Conservation Service or Cooperative Extension.

Construction Materials

Table 10, "Construction Materials," gives information about the soils as a source of roadfill, sand, gravel, and topsoil. The soils are rated *good*, *fair*, or *poor* as a source of roadfill and topsoil. They are rated as a *probable* or *improbable* source of sand and gravel.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. Table 10, "Construction Materials," the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the soil material below the surface layer to a depth of 5 or 6 feet. It is assumed that soil layers will be mixed during excavating and spreading. Many soils have layers of contrasting suitability within their profile. The table showing engineering index properties provides detailed information about each soil layer. This information can help to determine the suitability of each layer for use as roadfill. The performance of soil after it is

stabilized with lime or cement is not considered in the ratings.

The ratings are based on soil properties, site features, and observed performance of the soils. The thickness of suitable material is a major consideration. The ease of excavation is affected by large stones, a high water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the engineering classification of the soil) and shrink-swell potential.

Soils rated *good* contain significant amounts of sand or gravel, or both. They have at least 5 feet of suitable material, a low shrink-swell potential, few cobbles and stones, and slopes of 15 percent or less. Depth to the water table is more than 3 feet. Soils rated *fair* are more than 35 percent silt- and clay-sized particles and have a plasticity index of less than 10. They have a moderate shrink-swell potential, slopes of 15 to 25 percent, or many stones. Depth to the water table is 1 to 3 feet. Soils rated *poor* have one or more of the following characteristics: a plasticity index of more than 10, a high shrink-swell potential, many stones, slopes of more than 25 percent, or a water table at a depth of less than 1 foot. They may have layers of suitable material, but the material is less than 3 feet thick.

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, "Construction Materials," only the probability of finding material in suitable quantity in or below the soil 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 engineering classification of the soil), the thickness of suitable material, and the content of rock fragments. Kinds of rock, acidity, and stratification are given in the soil series descriptions. Gradation of grain sizes is given in the table on engineering index properties.

A soil rated as a probable source has a layer of clean sand or gravel or a layer of sand or gravel that is as much as 12 percent silty fines. This material must be at least 3 feet thick and less than 50 percent, by weight, large stones. All other soils are rated as an improbable source. Fragments of soft bedrock, such as shale and siltstone, are not considered to be sand and gravel.

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.

Plant growth is affected by toxic material and by such properties as soil reaction, available water capacity, and fertility. The ease of excavating, loading, and spreading is affected by rock fragments, slope, a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, a water table, rock fragments, bedrock, and toxic material.

Soils rated *good* have friable, loamy material to a depth of at least 40 inches. They are free of stones and cobbles, have little or no gravel, and have slopes of less than 8 percent. They are low in content of soluble salts, are naturally fertile or respond well to fertilizer, and are not so wet that excavation is difficult.

Soils rated *fair* are sandy soils, loamy soils that have a relatively high content of clay, soils that have only 20 to 40 inches of suitable material, soils that have an appreciable amount of gravel, stones, or soluble salts, or soils that have slopes of 8 to 15 percent. The soils are not so wet that excavation is difficult.

Soils rated *poor* are very sandy or clayey; have less than 20 inches of suitable material; have a large amount of gravel, stones, or soluble salts; have slopes of more than 15 percent; or have a seasonal high water table at or near the surface.

The surface layer of most soils generally is 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, "Water Management" gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The limitations are considered *slight* if soil properties and site features generally are favorable for the indicated use and limitations are minor and are easily overcome; *moderate* if soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations; and *severe* if soil properties or site features are so unfavorable or so difficult to

overcome that special design, significant increase in construction costs, and possibly increased maintenance are required.

This table also gives for each soil the restrictive features that affect drainage, irrigation, terraces and diversions, and grassed waterways.

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. In table 11, "Water Management," 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 more than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Drainage is the removal of excess surface and subsurface water from the soil. How easily and effectively the soil is drained depends on the depth to bedrock, to a cemented pan, or to other layers that affect the rate of water movement; permeability; depth to a high water table or depth of

standing water if the soil is subject to ponding; slope; susceptibility to flooding; subsidence of organic layers; and the potential for frost action. Excavating and grading and the stability of ditchbanks are affected by depth to bedrock or to a cemented pan, large stones, slope, and the hazard of cutbanks caving. The productivity of the soil after drainage is adversely affected by extreme acidity or by toxic substances in the root zone, such as salts, sodium, or sulfur. Availability of drainage outlets is not considered in the ratings.

Irrigation is the controlled application of water to supplement rainfall and support plant growth. The design and management of an irrigation system are affected by depth to the water table, the need for drainage, flooding, available water capacity, intake rate, permeability, erosion hazard, and slope. The construction of a system is affected by large stones and depth to bedrock or to a cemented pan. The performance of a system is affected by the depth of the root zone, the amount of salts or sodium, and soil reaction.

Terraces and diversions are embankments or a combination of channels and ridges constructed across a slope to control erosion and conserve moisture by intercepting runoff.

Slope, wetness, large stones, and depth to bedrock or to a cemented pan affect the construction of terraces and diversions. A restricted rooting depth, a severe hazard of soil blowing or water erosion, an excessively coarse texture, and restricted permeability adversely affect maintenance.

Grassed waterways are natural or constructed channels, generally broad and shallow, that conduct surface water to outlets at a nonerosive velocity. Large stones, wetness, slope, and depth to bedrock or to a cemented pan affect the construction of grassed waterways. A hazard of soil blowing, low available water capacity, restricted rooting depth, toxic substances such as salts or sodium, and restricted permeability adversely affect the growth and maintenance of the grass after construction.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey. The data and the estimates of soil and water features listed in tables are explained on the following pages.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine grain-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties shown in the tables include the range of grain-size distribution and Atterberg limits, the engineering classification, and the physical and chemical properties of the major layers of each soil. Pertinent soil and water features also are given.

Engineering Index Properties

Table 12, "Engineering Index Properties" gives estimates of the engineering classification and of the range of index properties for the major layers of each soil in the survey area. Most soils have layers of contrasting properties within the upper 5 or 6 feet.

Depth to the upper and lower boundaries of each layer is indicated. The range in depth and information on other properties of each layer are given in the series descriptions in Part I of this survey.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is as much as 15 percent, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the "Glossary."

Classification of the soils is determined according to the system adopted by the American Association of State Highway and Transportation Officials (1) and the Unified soil classification system (2).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to grain-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, SP-SM.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as

subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of grain-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is omitted in the table.

Physical and Chemical Properties

Table 13, "Physical Properties of the Soils," and table 14, "Chemical Properties of the Soils," show estimates of some characteristics and features that affect soil behavior. These estimates are given for the major layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated. The range in depth and information on other properties of each layer are given in the series descriptions in Part I of this survey.

Clay as a soil separate, or component, consists of mineral soil particles that are less than 0.002 millimeter in diameter. The estimated clay content of each major soil layer 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 greatly affect the fertility and physical condition of the soil. They determine the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earth-moving operations.

Moist bulk density is the weight of soil (oven-dry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3-bar moisture tension. Weight is determined after drying the soil at 105 degrees C. In table 13, "Physical Properties of the Soils," the estimated moist bulk density of each major soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. A bulk density of more than 1.6 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability refers to the ability of a soil to transmit water or air. The estimates indicate the rate of downward movement of water when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each major soil layer. The capacity varies depending on soil properties that affect the retention of water and the depth of the root zone. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Shrink-swell potential is the potential for volume change in a soil with a loss or gain in moisture. Volume change occurs mainly because of the interaction of clay minerals with water and varies with the amount and type of clay minerals in the

soil. The size of the load on the soil and the magnitude of the change in soil moisture content influence the amount of swelling of soils in place. Laboratory measurements of swelling of undisturbed clods were made for many soils. For others, swelling was estimated on the basis of the kind and amount of clay minerals in the soil and on measurements of similar soils.

If the shrink-swell potential is rated moderate to very high, shrinking and swelling can cause damage to buildings, roads, and other structures. Special design is often needed.

Shrink-swell potential classes are based on the change in length of an unconfined clod as moisture content is increased from air-dry to field capacity. The classes are *low*, a change of less than 3 percent; *moderate*, 3 to 6 percent; and *high*, more than 6 percent. *Very high*, more than 9 percent, is sometimes used.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In table 13, "Physical Properties of Soils," the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained or increased by returning crop residue to the soil. Organic matter affects the available water capacity, infiltration rate, and tilth. It is a source of nitrogen and other nutrients for crops.

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) to predict the average rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, very fine sand, sand, and organic matter (as much as 4 percent) and on soil structure and permeability. The estimates are modified by the presence of rock fragments. Values of K range from 0.02 to 0.69. The higher the value, the more susceptible the soil is to sheet and rill erosion.

Erosion factor Kf 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 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 resistance to soil blowing in cultivated areas. The groups indicate the susceptibility of soil to soil blowing.

Soils are grouped according to the following distinctions:

1. Coarse sands, sands, fine sands, and very fine sands. These soils generally are not suitable for crops. They are extremely erodible and vegetation is difficult to establish.

2. Loamy coarse sands, loamy sands, loamy fine sands, loamy very fine sands, and sapric soil material. These soils are very highly erodible. Crops can be grown if intensive measures to control soil blowing are used.

3. Coarse sandy loams, sandy loams, fine sandy loams, and very fine sandy loams. These soils are highly erodible. Crops can be grown if intensive measures to control soil blowing are used.

4L. Calcareous loams, silt loams, clay loams, and silty clay loams that have more than 5 percent finely divided calcium carbonate. These soils are highly erodible. Crops can be grown if intensive measures to control soil blowing are used.

4. Clays, silty clays, noncalcareous clay loams, and silty clay loams that are more than 35 percent clay. These soils are moderately erodible. Crops can be grown if measures to control soil blowing are used.

5. Noncalcareous loams and silt loams that are less than 20 percent clay and sandy clay loams, sandy clays, and hemic soil material. These soils have less than 5 percent finely divided calcium carbonate. These soils are moderately erodible. Crops can be grown if measures to control soil blowing are used.

6. Noncalcareous loams and silt loams that are more than 20 percent clay and noncalcareous clay loams that are less than 35 percent clay. These soils have less than 5 percent finely divided calcium carbonate. These soils are moderately erodible. Crops can be grown if ordinary measures to control soil blowing are used.

7. Silts, noncalcareous silty clay loams that are less than 35 percent clay, and fibric soil material. These soils have less than 5 percent finely divided calcium carbonate. These soils are very slightly erodible. Crops can be grown if ordinary measures to control soil blowing are used.

8. Soils that are not subject to soil blowing because of rock fragments on the surface or because of surface wetness.

Wind erodibility index is a numerical value indicating the susceptibility of soil to soil blowing, or the tons per acre per year that can be expected to be lost to soil blowing. There is a close correlation between soil blowing and the size and durability of surface clods, rock fragments, organic

matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence soil blowing.

Cation-exchange capacity is the total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. Soils having a high cation-exchange capacity can retain cations. The ability to retain cations helps to prevent the pollution of ground water.

Soil reaction is a measure of acidity or alkalinity and is expressed as a range in pH values. The range in pH of each major horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the soil. The availability of plant nutrients is influenced by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

Gypsum is given as the percent, by weight, of hydrated calcium sulfates in the soil. Gypsum is partially soluble in water and can be dissolved and removed by water. Soils that have a high content of gypsum (more than 10 percent) may collapse if the gypsum is removed by percolating water.

Salinity is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of the soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Sodium adsorption ratio is the measure of sodium relative to calcium and magnesium in the water extract from saturated soil paste. Soils having a sodium adsorption ratio of 13 or more may be characterized by an increased dispersion of organic

matter and clay particles, reduced permeability and aeration, and a general degradation of soil structure.

Water Features

Table 15, "Water Features" gives estimates of several important water features used in land use planning that involves engineering considerations. These features are described in the following paragraphs.

Hydrologic soil groups are groups of soils that, when saturated, have the same runoff potential under similar storm and ground cover conditions. The soil properties that affect the runoff potential are those that influence the minimum rate of infiltration in a bare soil after prolonged wetting and when the soil is not frozen. These properties include the depth to a seasonal high water table, the intake rate, permeability after prolonged wetting, and the depth to a very slowly permeable layer. The influences of ground cover and slope are treated independently and are not taken into account in hydrologic soil groups.

In the definitions of the hydrologic soil groups, the infiltration rate is the rate at which water enters the soil at the surface and is controlled by surface conditions. The transmission rate is the rate at which water moves through the soil and is controlled by properties of the soil layers.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist chiefly of very deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well or well drained soils that have a moderately fine 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 that have a moderately fine or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clayey soils that have a high shrink-swell potential, soils that have a permanent high water table, soils that have a claypan or clay

layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Flooding, the temporary covering of the soil surface by flowing water, is caused by overflow from streams or by runoff from adjacent slopes. Shallow water standing or flowing for short periods after rainfall or snowmelt is not considered flooding. Standing water in marshes and swamps or in closed depressions is considered to be ponding.

Table 15, "Water Features," gives the frequency and duration of flooding and the time of year when flooding is most likely to occur. Frequency, duration, and probable dates of occurrence are estimated. Frequency generally is expressed as none, rare, occasional, or frequent. *None* means flooding is not probable; *rare* that it is unlikely but is possible under unusual weather conditions (the chance of flooding is nearly 0 percent 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); and *frequent* that it occurs often under normal weather conditions (the chance of flooding is 50 percent in any year). The term *common* includes both frequent and occasional flooding.

Duration is expressed as *very brief* (less than 2 days), *brief* (2 to 7 days), *long* (7 to 30 days), and *very long* (more than 30 days). The time of year that flooding is most likely to occur is expressed in months. About two-thirds to three-fourths of all flooding occurs during the stated period.

The information on flooding is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and level of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

High water table (seasonal) is a zone of saturation at the highest average depth during the wettest season. It is at least 6 inches thick, persists in the soil for more than a few weeks, and is within 6 feet of the surface. Indicated in table 15, "Water Features," are the depth to the seasonal high water table, the kind of water table,

and the months of the year when the water table usually is highest.

An *apparent* water table is indicated by the level at which water stands in a freshly dug, unlined borehole after adequate time for adjustments in the surrounding soil.

A *perched* water table is one that is above an unsaturated zone in the soil. The basis for determining that a water table is perched may be general knowledge of the area. The water table is proven to be perched if the water level in a borehole is observed to fall when the borehole is extended.

Two numbers in the column showing depth to the water table indicate the normal range in depth to a saturated zone. Depth is given to the nearest half foot. The first numeral in the range indicates the highest water level. A plus sign preceding the range in depth indicates that the water table is above the surface of the soil. "More than 6.0" indicates that the water table is below a depth of 6 feet or that it is within a depth of 6 feet for less than a month.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation.

Soil Features

Table 16, "Soil Features," gives estimates of several important soil features used in land use planning that involves engineering considerations. These features are described in the following paragraphs.

Depth to bedrock is given if bedrock is within a depth of 60 inches. The depth is based on many soil borings and on observations during soil mapping. The rock is specified as either soft or hard. If the rock is soft or fractured, excavations can be made with trenching machines, backhoes, or small rippers. If the rock is hard or massive, blasting or special equipment generally is needed for excavation.

A *cemented pan* is a nearly continuous layer of indurated or strongly cemented material that is hard and brittle. The particles are held together by cementing substances, such as calcium carbonate and oxides of silicon, iron, or aluminum. Pans are identified when they are within a depth of 60 inches. They are classified as thin or thick. A *thin* pan can be excavated by trenching machines, backhoes, small rippers, and other equipment

commonly used to dig excavations for pipelines, sewer lines, and graves. A *thick* pan is so thick or massive that blasting or special equipment is needed when excavations are made.

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. Table 16, "Soil Features," shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage mainly to pavements and other rigid structures.

A *low* potential for frost action indicates that the

soil is rarely susceptible to the formation of ice lenses; a *moderate* potential indicates that the soil is susceptible to formation of ice lenses, resulting in frost heave and the subsequent loss of soil strength; and a *high* potential indicates that the soil is highly susceptible to formation of ice lenses, resulting in frost heave and the subsequent loss of soil strength.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that dissolves or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil.

Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than steel in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low*, *moderate*, or *high*, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion is also expressed as *low*, *moderate*, or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

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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 cone. The material washed down the sides of mountains and hills by ephemeral streams and deposited at the mouth of gorges in the form of a moderately steep, conical mass descending equally in all directions from the point of issue.

Alluvial fan. The fanlike deposit of a stream where it issues from a narrow valley upon a plain, or of a tributary stream near or at its junction with its main stream.

Alluvial flat. A nearly level, graded, alluvial surface in bolsons and semi-bolsons. Commonly, an alluvial flat does not manifest terraces or floodplain levels.

Alluvium. Material, such as sand, silt, or clay, deposited on land by streams.

Alpha,alpha-dipyridyl. A dye that when dissolved in 1N ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction indicates a type of redoximorphic feature.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Area reclaim (in tables). An area difficult to reclaim after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Argillite. Weakly metamorphosed mudstone or shale.

Arroyo. The flat-floored channel of an ephemeral stream, commonly with very steep to vertical banks cut in alluvium.

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 3.5
Low	3.5 to 5
Moderate	5 to 7.5
High	more than 7.5

Avalanche chute. The track or path formed by an avalanche.

Back slope. The geomorphic component that forms the steepest inclined surface and principal element of many hillsides. Back slopes in profile are commonly steep, are linear, and may or may not include cliff segments.

Backswamp. A floodplain landform of extensive, marshy, or swampy, depressed areas of flood

plains between natural levees and valley sides or terraces.

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.

Ballena. A fan remnant having a distinctively-rounded surface of fan alluvium. The ballena's broadly rounded shoulders meet from either side to form a narrow summit and merge smoothly with concave, short pediments which form smoothly-rounded drainageways between adjacent ballenas. A partial ballena is a fan remnant large enough to retain some relict fan surface on a remnant summit.

Barrier beach. A wide gently sloping portion of a bolson floor comprising numerous, parallel, relict longshore-bars and lagoons built by a receding pluvial lake.

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.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, K), expressed as a percentage of the total cation-exchange capacity.

Basin floor. A general term for the nearly level, lower-most part of intermontane basins (i.e., bolson, semi-bolsions). The basin floor includes all of the alluvial, eolian, and erosional landforms below the piedmont slope.

Beach terrace. The relict shorelines from pluvial lakes, generally restricted to valley sides.

Bedding planes. Fine strata, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediment.

Bedding system. A drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.

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.

Bisequum. Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.

Blowout. A shallow depression from which all or most of the soil material has been removed by wind. A blowout has a flat or irregular floor formed by a resistant layer or by an accumulation of pebbles or cobbles. In some blowouts, the water table is exposed.

Board foot. A unit of measure of the wood in lumber, logs, or trees. The amount of wood in a board one foot wide, one foot long, and one inch thick before finishing.

Bolson. A landscape term for an internally drained intermontane basin into which drainages from surrounding mountains converge inward toward a central depression.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Breaks. The steep and very steep broken land at the border of an upland summit that is dissected by ravines.

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.

Caldera. A large, more or less circular depression, formed by explosion and/or collapse, which surrounds a volcanic vent or vents, and whose

- diameter is much greater than that of the included vent, or vents.
- 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.
- California bearing ratio (CBR).** The load-supporting capacity of a soil as compared to that of a standard crushed limestone, expressed as a ratio. First standardized in California. A soil having a CBR of 16 supports 16 percent of the load that would be supported by standard crushed limestone, per unit area, with the same degree of distortion.
- 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.
- Catena.** A sequence, or "chain," of soils on a landscape that formed in similar kinds of parent material but have different characteristics as a result of differences in relief and drainage.
- Cation.** An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.
- Cation-exchange capacity.** The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.
- Channeled.** Refers to a drainage area in which natural meandering or repeated branching and convergence of a streambed have created deeply incised cuts, either active or abandoned, in alluvial material.
- Channery soil material.** Soil material that is, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.
- Chemical treatment.** Control of unwanted vegetation through the use of chemicals.
- Chiseling.** Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.
- Clay.** As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.
- Clay depletions.** Low-chroma zones having a low content of iron, manganese, and clay because of the chemical reduction of iron and manganese and the removal of iron, manganese, and clay. A type of redoximorphic depletion.
- Clayey soil.** Silty clay, sandy clay, or clay.
- Clay film.** A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.
- Claypan.** A slowly permeable soil horizon that contains much more clay than the horizons above it. A claypan is commonly hard when dry and plastic or stiff when wet.
- Clearcut.** A method of forest harvesting that removes the entire stand of trees in one cutting. Reproduction is achieved artificially or by natural seeding from adjacent stands.
- Climax plant community.** The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.
- Closed depression.** A low area completely surrounded by higher ground and having no natural outlet.
- Coarse fragments.** Mineral or rock particles larger than 2 millimeters in diameter.
- Coarse textured soil.** Sand or loamy sand.
- Cobble (or cobblestone).** A rounded, partly rounded, or angular fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.
- Cobbly soil material.** Material that is 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material is 35 to 60 percent of these rock fragments, and extremely cobbly soil material is more than 60 percent.
- Codominant trees.** Trees whose crowns form the general level of the forest canopy and that receive full light from above but comparatively little from the sides.

Colluvium. Unconsolidated, unsorted earth material moved and deposited by mass movement on sideslopes and at the base of slopes.

Commercial forest. Forest land capable of producing 20 cubic feet or more per acre per year at the culmination of mean annual increment.

Complex slope. Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Compressible (in tables). Excessive decrease in volume of soft soil under load.

Concretions. Cemented bodies with crude internal symmetry organized around a point, a line, or a plane that typically takes 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 to 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 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."

Contour stripcropping. Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but, for many, it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

Coprogenous earth (sedimentary peat). Fecal material deposited in water by aquatic organisms.

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.

Cross-slope farming. Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.

Crown. The upper part of a tree or shrub, including the living branches and their foliage.

Cuesta. A hill or ridge that has a gentle slope on one side and a steep slope on the other; specifically, an asymmetric, homoclinal ridge capped by resistant rock layers of slight or moderate dip.

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.

Deep soil. A soil that is 40 to 60 inches deep over bedrock or to other material that restricts the penetration of plant roots.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Delta. A body of alluvium having a surface that is nearly flat and fan shaped, deposited at or near the mouth of a river or stream where it enters a body of relatively quiet water, generally a sea or lake.

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.

Depth to rock (in tables). Bedrock is too near the surface for the specified use.

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.

Dip slope. A slope of the land surface, roughly determined by and approximately conforming to the dip of the underlying bedrock.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Divided-slope farming. A form of field stripcropping in which crops are grown in a systematic arrangement of two strips, or bands, across the slope to reduce the hazard of water erosion. One strip is in a close-growing crop that provides protection from erosion, and the other strip is in a crop that provides less protection from erosion. This practice is used where slopes are not long enough to permit a full stripcropping pattern to be used.

Dominant trees. Trees whose crowns form the general level of the forest canopy and that receive full light from above and from the sides.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed.

Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized: excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

Drainage, surface. Runoff, or surface flow of water, from an area.

Drainageway. An area of ground at a lower elevation than the surrounding ground and in which water collects and is drained to a closed depression or lake or to a drainageway at a lower elevation. A drainageway may or may not have distinctly incised channels at its upper reaches or throughout its course.

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.

Dune. A mound, ridge, or hill of loose, windblown granular material (generally sand), either bare or covered with vegetation.

Ecological Site. A distinctive kind of rangeland or grazed forestland that has a unique historic potential native plant community. Ecological sites are the products of all the environmental factors that affect their development. An ecological site is capable of supporting a native plant community that has a unique kind and/or proportion of species or total vegetative production. Ecological sites in grazed forestland include both overstory and understory vegetation.

Effervescence. The quality of a soil measured when drops of diluted (1:10) hydrochloric acid (HCL) are added to the soil. The ratings are as follows:

Very slightly effervescentfew bubbles
Slightly effervescentbubbles readily
Strongly effervescent bubbles form low foam
Violently effervescentbubbles form thick foam quickly

- 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 pavement.** A layer of gravel or stones that remains on the surface after fine particles are removed by sheet or rill erosion.
- 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.
- Even aged.** Refers to a stand of trees in which only small differences in age occur between the individuals. A range of 20 years is allowed.
- Excess alkali** (in tables). Excess exchangeable sodium in the soil. The resulting poor physical properties restrict the growth of plants.
- Excess fines** (in tables). Excess silt and clay in the soil. The soil does not provide a source of gravel or sand for construction purposes.
- Excess lime** (in tables). Excess carbonates in the soil that restrict the growth of some plants.
- Excess salts** (in tables). Excess water-soluble salts in the soil that restrict the growth of most plants.
- Excess sodium** (in tables). Excess exchangeable sodium in the soil. The resulting poor physical properties restrict the growth of plants.
- Excess sulfur** (in tables). Excessive amount of sulfur in the soil. The sulfur causes extreme acidity if the soil is drained, and the growth of most plants is restricted.
- 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 apron.** A sheet-like mantle of relatively young alluvium covering part of an older fan piedmont surface. It somewhere buries a soil that can be traced to the edge of the fan apron.
- Fan piedmont.** The most extensive landform on piedmont slopes, formed by the coalescence of alluvial fans or accretions of fan aprons into one generally smooth slope.
- Fan remnant.** A general term for landforms that are remaining parts of older fan-landforms, that either have been dissected or partially buried.
- Fan skirt.** The zone of smooth, laterally-coalescing, small alluvial fans that issue from gullies cut into the fan piedmont or that are the coalescing extensions of inset fans of the fan piedmont, and that merge with the basin floor.
- Fast intake** (in tables). The rapid movement of water into the soil.
- Fertility, soil.** The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.
- Fibric soil material (peat).** The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.
- Field moisture capacity.** The moisture content of a soil, expressed as a percentage of the oven-dry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called

normal field capacity, normal moisture capacity, or capillary capacity.

Fill slope. A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.

Fine textured soil. Sandy clay, silty clay, or clay.

Firebreak. An area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of fire fighters and equipment. Designated roads also serve as firebreaks.

First bottom. The normal flood plain of a stream, subject to frequent or occasional flooding.

Flaggy soil material. Material that is, by volume, 15 to 35 percent flagstones. Very flaggy soil material is 35 to 60 percent flagstones, and extremely flaggy soil material is 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.

Foothill. A steeply sloping upland that has relief of as much as 1,000 feet (300 meters) and fringes a mountain range or high-plateau escarpment.

Foot slope. The inclined surface at the base of a hill.

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.

Fragile (in tables). A soil that is easily damaged by use or disturbance.

Frost action (in tables). Freezing and thawing of soil moisture. Frost action can damage roads, buildings and other structures, and plant roots.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Gilgai. The microrelief of clayey soils that shrink and swell considerably with changes in moisture content. Usually manifested as a succession of microbasins and microknolls in nearly level areas or of microvalleys and microridges parallel with the slope.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Graded stripcropping. Growing crops in strips that grade toward a protected waterway.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that is 15 to 50 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water. Water filling all the unblocked pores of underlying material below the water table.

Gully. A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Gypsum. A mineral consisting of hydrous calcium sulfate.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hardpan. A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.

Heavy metal. Inorganic substances that are solid at ordinary temperatures and are not soluble in water. They form oxides and hydroxides that are basic. Examples are copper, iron, cadmium, zinc, manganese, lead, and arsenic.

Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.

High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.

Hill. A natural elevation of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

Holocene. The epoch of the Quaternary Period of geologic time, extending from the end of the Pleistocene Epoch (about 10 to 12 thousand years ago) to the present.

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. 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 less palatable to livestock.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Inset fan. A special case of the flood plain of an ephemeral stream that is confined between fan remnants, basin-floor remnants, ballenas, or closely opposed fan toeslopes.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Intermittent stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives groundwater discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Intermontane basin. A generic term for wide structural depressions between mountain ranges that are partly filled with alluvium. They may be drained internally (bolsons) or externally (semi-bolsons).

Invaders. On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

Iron depletions. Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Basin.--Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Border.--Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes or borders.

Controlled flooding.--Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.--Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).--Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.--Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.--Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.--Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.--Water, released at high points, is allowed to flow onto an area without controlled distribution.

Lacustrine deposit. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

Lagoon. The nearly level, filled depression behind the longshore bar on a barrier beach.

Lake plain. A surface marking the floor of an extinct lake, filled in by well sorted, stratified sediments.

Lake terrace. The narrow shelf produced along a lake shore and later exposed when the water recedes.

Lamella. A thin, generally horizontal layer of fine material illuviated within a very much thicker, coarser, eluviated layer.

Landform. Any recognizable form or feature on the earth's surface, having a characteristic shape, and produced by natural causes that provide an empirical description of similar portions of the earth's surface.

Landscape. A collection of related, natural landforms.

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.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Loamy soil. Coarse sandy loam, sandy loam, fine sandy loam, very fine sandy loam, loam, silt loam, silt, clay loam, sandy clay loam, or silty clay loam.

Loess. Fine grained material, dominantly of silt-sized particles, deposited by wind.

Longshore bar. A narrow, elongate, coarse-textured ridge, built by the wave action of a pluvial lake, that extends parallel to the shore and separated it from a lagoon; both the bar and lagoon are now relict features.

- Low-residue crops.** Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.
- Low strength.** The soil is not strong enough to support loads.
- Marl.** An earthy, unconsolidated deposit consisting chiefly of calcium carbonate mixed with clay in approximately equal amounts.
- 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.
- Mean annual increment (MAI).** The average annual increase in volume of a tree during the entire life of the tree.
- 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.
- Merchantable trees.** Trees that are of sufficient size to be economically processed into wood products.
- 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 deep soil.** A soil that is 20 to 40 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Moderately fine textured soil.** Clay loam, sandy clay loam, or silty clay loam.
- Mollic epipedon.** A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.
- Morphology, soil.** The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.
- Mottling, soil.** Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance--*few, common, and many*; size--*fine, medium, and coarse*; and contrast--*faint, distinct, and prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).
- 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.)
- Mudstone.** Sedimentary rock formed by induration of silt and clay in approximately equal amounts.
- Munsell notation.** A designation of color by degrees of three simple variables--hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.
- Natric horizon.** A special kind of argillic horizon that contains enough exchangeable sodium to have an adverse effect on the physical condition of the subsoil.
- Neutral soil.** A soil having a pH value between 6.6 and 7.3. (See Reaction, soil.)
- Nodules.** Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.
- Nutrient, plant.** Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Observed rooting depth. Depth to which roots have been observed to penetrate.

Organic matter. Plant and animal residue in the soil in various stages of decomposition.

Overstory. The trees in a forest that form the upper crown cover.

Oxbow. The horseshoe-shaped channel of a former meander, remaining after the stream formed a cutoff across a narrow meander neck.

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan*, *fragipan*, *claypan*, *plowpan*, and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Parna dune. An eolian dune built of sand size aggregates of clayey material that commonly occurs leeward of a playa.

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.

Pediment. A gently sloping erosional surface developed at the foot of a receding hill or mountain slope.

Pedisediment. A thin layer of alluvial material that mantles an erosion surface and has been transported to its present position from higher lying areas of the erosion surface.

Pedon. The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The downward movement of water through the soil.

Percs slowly (in tables). The slow movement of water through the soil adversely affects the specified use.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as "saturated hydraulic conductivity," which is defined in the "Soil Survey Manual." In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as "permeability."

Terms describing permeability, measured in inches per hour, are as follows:

Extremely slow	0.00 to 0.01 inch
Very slow	0.01 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Piedmont slope. The dominant slope at the foot of a mountain. Main components of the piedmont slope include pediments, alluvial fans, fan piedmonts, fan skirts and inset fans.

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.

Playa. The generally dry and nearly level lake plain that occupies the lowest parts of closed depressional areas, such as those on intermontane basin floors. Temporary flooding occurs primarily in response to precipitation and runoff.

Pleistocene. The epoch of the Quaternary Period of geologic time preceding the Holocene (from approximately 2 million to 10 thousand years ago).

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Pluvial. Relating to former periods of abundant rains.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poor filter (in tables). Because of rapid or very rapid permeability, the soil may not adequately filter effluent from a waste disposal system.

Poorly graded. Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Poor outlets (in tables). Refers to areas where surface or subsurface drainage outlets are difficult or expensive to install.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Quartzite, metamorphic. Rock consisting mainly of quartz that formed through recrystallization of quartz-rich sandstone or chert.

Quaternary. The period of geologic time, extending from about 2 million years ago to the present and comprising two epochs, the Pleistocene (Ice Age) and Holocene (Recent).

Quartzite, sedimentary. Very hard but unmetamorphosed sandstone consisting chiefly of quartz grains.

Range condition. The present composition of the plant community on a range site in relation to the potential natural plant community for that site. Range condition is expressed as excellent, good, fair, or poor on the basis of how much the present plant community has departed from the potential.

Rangeland. Land on which the potential natural vegetation is predominantly grasses, grasslike plants, forbs, or shrubs suitable for grazing or browsing. It includes natural grasslands, savannas, many wetlands, some deserts, tundras, and areas that support certain forb and shrub communities.

Range site. An area of rangeland where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. A range site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other range sites in kind or proportion of species or total production.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid.....	3.5 to 4.4
Very strongly acid.....	4.5 to 5.0
Strongly acid.....	5.1 to 5.5
Moderately acid.....	5.6 to 6.0
Slightly acid.....	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline. (mildly 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.

- Regeneration.** The new growth of a natural plant community, developing from seed.
- Regolith.** The unconsolidated mantle of weathered rock and soil material on the earth's surface; the loose earth material above the solid rock.
- Relict stream terrace.** One of a series of platforms in or adjacent to a stream valley that formed prior to the current stream system.
- Relief.** The elevations or inequalities of a land surface, considered collectively.
- Residuum (residual soil material).** Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.
- Rill.** A steep-sided channel resulting from accelerated erosion. A rill is generally a few inches deep and not wide enough to be an obstacle to farm machinery.
- Riverwash.** Unstable areas of sandy, silty, clayey, or gravelly sediments. These areas are flooded, washed, and reworked by rivers so frequently that they support little or no vegetation.
- Road cut.** A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.
- Rock fragments.** Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.
- Rock outcrop.** Exposures of bare bedrock other than lava flows and rock-lined pits.
- Rooting depth (in tables).** Shallow root zone. The soil is shallow over a layer that greatly restricts roots.
- Root zone.** The part of the soil that can be penetrated by plant roots.
- Rubble land.** Areas that have more than 90 percent of the surface covered by stones or boulders. Voids contain no soil material and virtually no vegetation other than lichens. The areas commonly are at the base of mountain slopes, but some are on mountain slopes as deposits of cobbles, stones, and boulders left by Pleistocene glaciation or by periglacial phenomena.
- Runoff.** The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is

called groundwater runoff or seepage flow from ground water.

Saline soil. A soil containing soluble salts in an amount that impairs the growth of plants. A saline soil does not contain excess exchangeable sodium.

Salinity. The electrical conductivity of a saline soil. It is expressed, in millimhos per centimeter, as follows:

Nonsaline	0 to 2
Very slightly saline	2 to 4
Slightly saline	4 to 8
Moderately saline	8 to 16
Strongly saline	More than 16

Salty water (in tables). Water that is too salty for consumption by livestock.

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.

Sand sheet. A large, irregularly shaped, surficial mantle of eolian sand.

Sandstone. Sedimentary rock containing dominantly sand-sized particles.

Sandy soil. Sand or loamy sand.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Saprolite. Unconsolidated residual material underlying the soil and grading to hard bedrock below.

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.

Sawlogs. Logs of suitable size and quality for the production of lumber.

Scarification. The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.

Scribner's log rule. A method of estimating the number of board feet that can be cut from a log of a given diameter and length.

Second bottom. The first terrace above the normal flood plain (or first bottom) of a river.

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.
- Seepage** (in tables). The movement of water through the soil. Seepage adversely affects the specified use.
- Semi-bolson**. An intermontane basin that is drained externally by an intermittent stream.
- Sequum**. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)
- Series, soil**. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.
- Shale**. Sedimentary rock formed by the hardening of a clay deposit.
- Shallow soil**. A soil that is 10 to 20 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Sheet erosion**. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.
- Shelterwood system**. A forest management system requiring the removal of a stand in a series of cuts so that regeneration occurs under a partial canopy. After regeneration, a final cut removes the shelterwood and allows the stand to develop in the open as an even-aged stand. The system is well suited to sites where shelter is needed for regeneration, and it can aid regeneration of the more intolerant tree species in a stand.
- Shoulder slope**. The uppermost inclined surface at the top of a hillside. It is the transition zone from the back slope to the summit of a hill or mountain. The surface is dominantly convex in profile and erosional in origin.
- Shrink-swell** (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.
- Shrub-coppice dune**. A small dune that forms around shrubs or small trees.
- Silica**. A combination of silicon and oxygen. The mineral form is called quartz.
- Silt**. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.
- Siltstone**. Sedimentary rock made up of dominantly silt-sized particles.
- Similar soils**. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.
- Sinkhole**. A depression in the landscape where limestone has been dissolved.
- Site class**. A grouping of site indexes into five to seven production capability levels. Each level can be represented by a site curve.
- Site curve (50-year)**. A set of related curves on a graph that shows the average height of dominant or dominant and codominant trees for the range of ages on soils that differ in productivity. Each level is represented by a curve. The basis of the curves is the height of dominant or dominant and codominant trees that are 50 years old or are 50 years old at breast height.
- Site curve (100-year)**. A set of related curves on a graph that shows the average height of dominant or dominant and codominant trees for a range of ages on soils that differ in productivity. Each level is represented by a curve. The basis of the curves is the height of dominant or dominant and codominant trees that are 100 years old or are 100 years old at breast height.
- 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.
- Skid trails**. Pathways along which logs are dragged to a common site for loading onto a logging truck.
- Slash**. The branches, bark, treetops, reject logs, and broken or uprooted trees left on the ground after logging.
- Slickens**. Accumulations of fine-textured material, such as material separated in placer-mine and ore-mill operations. Slickens from ore mills commonly consist of freshly ground rock that has undergone chemical treatment during the milling process.
- 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.

Slippage (in tables). Soil mass susceptible to movement downslope when loaded, excavated, or wet.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey, the following slope classes are recognized:

Nearly level	0 to 2 percent
Gently sloping	2 to 4 percent
Moderately sloping.....	4 to 8 percent
Strongly sloping.....	8 to 15 percent
Moderately steep	15 to 30 percent
Steep	30 to 50 percent
Very steep	50 to 75 percent
Extremely steep.....	75 percent and higher

Slope (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Slow intake (in tables). The slow movement of water into the soil.

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Small stones (in tables). Rock fragments less than 3 inches (7.6 centimeters) in diameter. Small stones adversely affect the specified use of the soil.

Sodic (alkali) soil. A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.

Sodicity. The degree to which a soil is affected by exchangeable sodium. Sodicity is expressed as a sodium adsorption ratio (SAR) of a saturation extract, or the ratio of NA^+ to $Ca^{++} + Mg^{++}$. The degrees of sodicity and their respective ratios are:

Very slight	5-12:1
Slight	13-30:1
Moderate	31-45:1
Strong.....	46-90:1
Very strong.....	more than 90:1

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand.....	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt.....	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Species. A single, distinct kind of plant or animal having certain distinguishing characteristics.

Stone line. A concentration of coarse fragments in a soil. Generally, it is indicative of an old weathered surface. In a cross section, the line may be one fragment or more thick. It generally overlies material that weathered in place and is overlain by recent sediment of variable thickness.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Strath terrace. A surface cut formed by the erosion of hard or semiconsolidated bedrock and thinly mantled with stream deposits.

Stream channel. The hollow bed where a natural stream of surface water flows or may flow; the deepest or central part of the bed, formed by the main current and covered more or less continuously by water.

- Stream terrace.** One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel. It originally formed near the level of the stream and is the dissected remnants of an abandoned flood plain, streambed, or valley floor that were produced during a former stage of erosion or deposition.
- Stripcropping.** Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to soil blowing and water erosion.
- Structure, soil.** The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are: *platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grain* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).
- Stubble mulch.** Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind 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.** Any surface soil horizon (A, E, AB, or EB) below the surface layer.
- Summer fallow.** The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.
- Summit.** A general term for the top, or highest level, of an upland feature, such as a hill or mountain. It commonly refers to a higher area that has a gentle slope and is flanked by steeper slopes.
- Surface layer.** The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer" or the "Ap horizon."
- Surface soil.** The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.
- Tailwater.** The water directly downstream of a structure.
- 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.
- Terrace.** An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field is generally built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.
- Terrace (geologic).** A step-like surface, ordinarily flat or undulating, bordering a river, a lake, or the sea representing a former flood plain.
- Texture, soil.** The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand*, *loamy sand*, *sandy loam*, *loam*, *silt loam*, *silt*, *sandy clay loam*, *clay loam*, *silty clay loam*, *sandy clay*, *silty clay*, and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."
- Thin layer (in tables).** Otherwise suitable soil material too thin for the specified use.
- Till plain.** An extensive area of nearly level to undulating soils underlain by glacial till.
- Tilth, soil.** The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.
- Toe slope.** The outermost inclined surface at the base of a hill; part of a foot slope.
- Too arid (in tables).** The soil is dry most of the time, and vegetation is difficult to establish.
- Topsoil.** The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to

- topdress roadbanks, lawns, and land affected by mining.
- Toxicity** (in tables). Excessive amount of toxic substances, such as sodium or sulfur, that severely hinder establishment of vegetation or severely restrict plant growth.
- Trace elements.** Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.
- Trafficability.** The degree to which a soil is capable of supporting vehicular traffic across a wide range in soil moisture conditions.
- Tread.** The relatively flat terrace surface that was cut or built by stream or wave action.
- Tuff.** A compacted deposit that is 50 percent or more volcanic ash and dust.
- Understory.** Any plants in a forest community that grow to a height of less than 5 feet.
- Unstable fill** (in tables). Risk of caving or sloughing on banks of fill material.
- Upland** (geology). Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.
- Valley.** An elongated depressional area primarily developed by stream action.
- Valley fill.** In glaciated regions, material deposited in stream valleys by glacial meltwater. In nonglaciated regions, alluvium deposited by heavily loaded streams.
- Variation.** Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.
- Very deep soil.** A soil that is more than 60 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Very shallow soil.** A soil that is less than 10 inches deep over bedrock or to other material that restricts the penetration of plant roots.
- Water bars.** Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.
- Waterspreading.** Diverting runoff from natural channels by means of a system of dams, dikes, or ditches and spreading it over relatively flat surfaces.
- Water supplying capacity.** The total amount of water available in the soil for plant growth in a normal year from precipitation and from runoff from higher areas. Runoff and water lost to deep percolation are not included.
- 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.
- Windthrow.** The uprooting and tipping over of trees by the wind.



TABLES

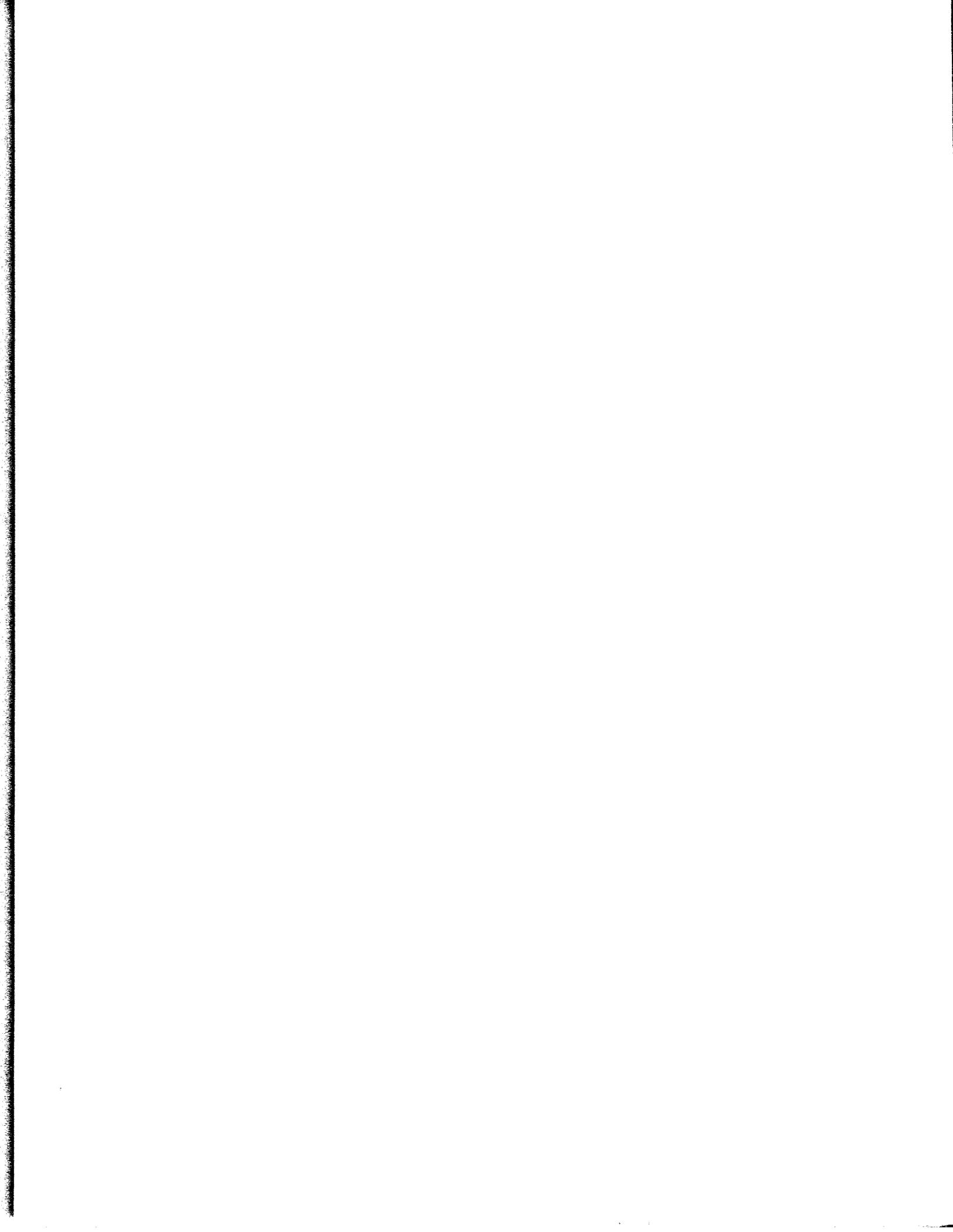


TABLE 1.--TEMPERATURE AND PRECIPITATION

(Recorded in the period 1928-90 at Winnemucca, Nevada)

Month	Temperature (Degrees F.)					Precipitation (Inches)				
	Average daily maximum	Average daily minimum	Average daily	Maximum temperature higher than--	Minimum temperature lower than	Average number of growing degree days	Average	2 years in 10 will have-- less than	more than	Average number of days with 0.10 inch or more
January---	40.8	16.7	28.7	61	-13	13	0.91	0.36	1.37	3
February--	47.1	22.3	34.7	67	-5	33	0.77	0.34	1.14	2
March-----	53.7	25.4	39.6	74	6	84	0.81	0.37	1.19	3
April-----	62.5	30.5	46.5	83	13	221	0.81	0.32	1.23	2
May-----	72.1	38.5	55.3	92	21	475	0.88	0.27	1.46	2
June-----	81.5	46.1	63.8	101	29	713	0.79	0.20	1.38	2
July-----	92.5	52.5	72.5	104	37	1,006	0.26	0.04	0.52	0
August-----	90.3	49.1	69.7	103	33	920	0.28	0.05	0.58	0
September--	80.4	39.5	59.9	97	21	598	0.38	0.09	0.70	1
October---	67.9	30.4	49.1	87	13	299	0.70	0.18	1.18	1
November--	52.5	22.8	37.6	73	1	62	0.87	0.34	1.39	2
December--	43.4	18.2	30.8	62	-9	17	0.89	0.33	1.35	3
Yearly :										
Average--	65.4	32.7	49.0	----	----	----	---	---	---	---
Extreme--	108	-36	---	105	-17	----	---	---	---	---
Total---	---	---	---	----	----	4,443	8.36	5.76	10.50	21

*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 1.--TEMPERATURE AND PRECIPITATION

(Recorded in the period 1948-90 at Paradise Valley, Nevada)

Month	Temperature (Degrees F.)					Precipitation (Inches)				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have--		Average number of growing degree days	Average	2 years in 10 will have--		Average number of days with 0.10 inch or more
				Maximum temperature higher than--	Minimum temperature lower than			less than	more than	
January---	39.5	16.7	28.1	56	-12	6	1.25	0.52	1.86	3
February--	45.4	22.0	33.7	63	-5	19	1.08	0.28	1.71	3
March-----	51.9	25.1	38.5	72	7	57	0.90	0.34	1.37	3
April-----	60.2	28.8	44.5	81	14	155	0.56	0.15	0.88	1
May-----	70.1	36.0	53.0	91	13	365	0.81	0.19	1.33	2
June-----	80.3	43.2	61.7	98	28	608	0.77	0.21	1.43	2
July-----	90.2	48.2	69.2	102	34	827	0.29	0.09	0.60	0
August-----	88.3	46.2	67.3	100	32	811	0.36	0.07	0.78	0
September--	78.9	38.1	58.5	96	20	519	0.51	0.13	0.98	1
October---	67.2	30.4	48.8	88	12	273	0.60	0.14	1.03	1
November--	50.0	23.3	36.7	76	1	47	1.32	0.50	2.06	4
December--	41.1	17.6	29.4	62	-9	7	1.36	0.46	2.17	4
Yearly :										
Average--	63.6	31.3	47.5	----	----	----	---	---	---	---
Extreme--	105	-30	---	102	-16	----	---	---	---	---
Total---	---	---	---	----	----	3,692	9.81	6.81	11.79	24

*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 1.--TEMPERATURE AND PRECIPITATION

(Recorded in the period 1957-90 at Kings River Valley, Nevada)

Month	Temperature (Degrees F.)					Precipitation (Inches)				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have--		Average number of growing degree days	Average	2 years in 10 will have--		Average number of days with 0.10 inch or more
				Maximum temperature higher than--	Minimum temperature lower than			less than	more than	
January---	39.1	14.9	27.0	58	-18	5	0.98	0.43	1.52	3
February--	46.5	22.7	34.6	73	-5	24	0.83	0.23	1.32	3
March-----	52.6	25.8	39.2	72	8	59	0.73	0.30	1.09	2
April-----	62.5	29.7	46.1	83	13	195	0.64	0.20	1.04	1
May-----	71.3	37.4	54.3	92	19	419	0.80	0.21	1.33	2
June-----	82.3	45.1	63.7	99	28	651	0.78	0.25	1.37	2
July-----	91.1	50.5	70.8	103	36	903	0.26	0.06	0.48	0
August-----	89.2	47.5	68.3	102	32	809	0.38	0.05	0.78	1
September--	79.1	39.8	59.4	96	22	544	0.49	0.24	0.96	1
October---	67.2	30.8	49.0	87	12	283	0.46	0.15	0.79	1
November--	50.7	22.8	36.7	71	0	49	1.12	0.50	1.75	4
December--	42.5	16.8	29.6	60	-7	9	1.20	0.34	1.98	4
Yearly :										
Average--	64.5	32.0	48.2	---	---	---	---	---	---	---
Extreme--	107	-29	---	104	-16	---	---	---	---	---
Total---	---	---	---	---	---	3,950	8.68	3.68	9.99	24

*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 1.--TEMPERATURE AND PRECIPITATION

(Recorded in the period 1950-90 at McDermitt, Nevada)

Month	Temperature (Degrees F.)					Precipitation (Inches)				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have--		Average growing degree days	Average	2 years in 10 will have--		Average number of days with 0.10 inch or more
				Maximum temperature higher than--	Minimum temperature lower than			less than	more than	
January---	38.0	14.1	26.0	55	-17	5	0.76	0.23	1.19	2
February--	44.9	19.5	32.2	64	-13	17	0.79	0.24	1.33	2
March-----	51.6	25.1	38.3	71	9	55	0.88	0.39	1.41	3
April-----	59.8	28.7	44.2	80	11	140	0.95	0.29	1.48	3
May-----	68.2	34.7	51.5	90	17	282	1.14	0.53	1.67	3
June-----	80.5	42.9	61.7	98	26	546	0.99	0.30	1.66	2
July-----	89.1	48.1	68.6	102	30	791	0.38	0.16	0.81	1
August-----	88.0	46.0	67.0	101	30	686	0.45	0.20	1.02	1
September-	75.8	35.5	55.7	96	17	435	0.77	0.38	1.41	2
October---	65.1	27.3	46.2	85	10	217	0.67	0.24	1.18	2
November--	47.6	22.4	35.0	70	-4	40	1.13	0.42	1.73	4
December--	40.6	16.2	28.4	57	-11	10	1.01	0.32	1.58	3
Yearly :										
Average--	62.4	30.0	46.2	----	----	----	---	---	---	---
Extreme--	105	-28	---	104	-18	----	---	---	---	---
Total	---	---	---	----	----	3,223	9.92	5.44	10.83	28

*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 1.--TEMPERATURE AND PRECIPITATION

(Recorded in the period 1948-90 at Orovada, Nevada)

Month	Temperature (Degrees F.)					Precipitation (Inches)				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have--		Average number of growing degree days	Average	2 years in 10 will have--		Average number of days with 0.10 inch or more
				Maximum temperature higher than--	Minimum temperature lower than			less than	more than	
January---	40.1	19.1	29.6	59	-8	15	1.10	0.45	1.65	4
February--	47.3	24.2	35.7	69	-1	37	0.89	0.32	1.37	3
March-----	52.5	26.8	39.6	73	9	75	1.10	0.41	1.73	3
April-----	61.4	31.4	46.4	83	15	191	1.15	0.46	1.73	3
May-----	71.0	38.5	54.7	92	22	416	1.33	0.50	2.16	4
June-----	81.7	46.3	64.0	100	30	647	1.07	0.28	1.80	2
July-----	91.9	52.7	72.3	116	37	946	0.28	0.14	0.76	0
August----	89.6	50.8	70.2	102	36	845	0.40	0.10	0.91	1
September-	79.8	41.7	60.7	99	24	541	0.56	0.26	1.26	1
October---	67.0	33.6	50.3	88	15	301	0.80	0.30	1.43	2
November--	51.0	25.8	38.4	71	4	69	1.14	0.47	1.76	3
December--	41.8	20.7	31.2	63	-4	15	1.06	0.27	1.69	4
Yearly :										
Average--	64.6	34.3	49.4	----	----	----	---	---	---	---
Extreme--	192	-23	---	115	-11	----	---	---	---	---
Total	---	---	---	----	----	4,098	10.88	5.48	13.57	30

*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.)

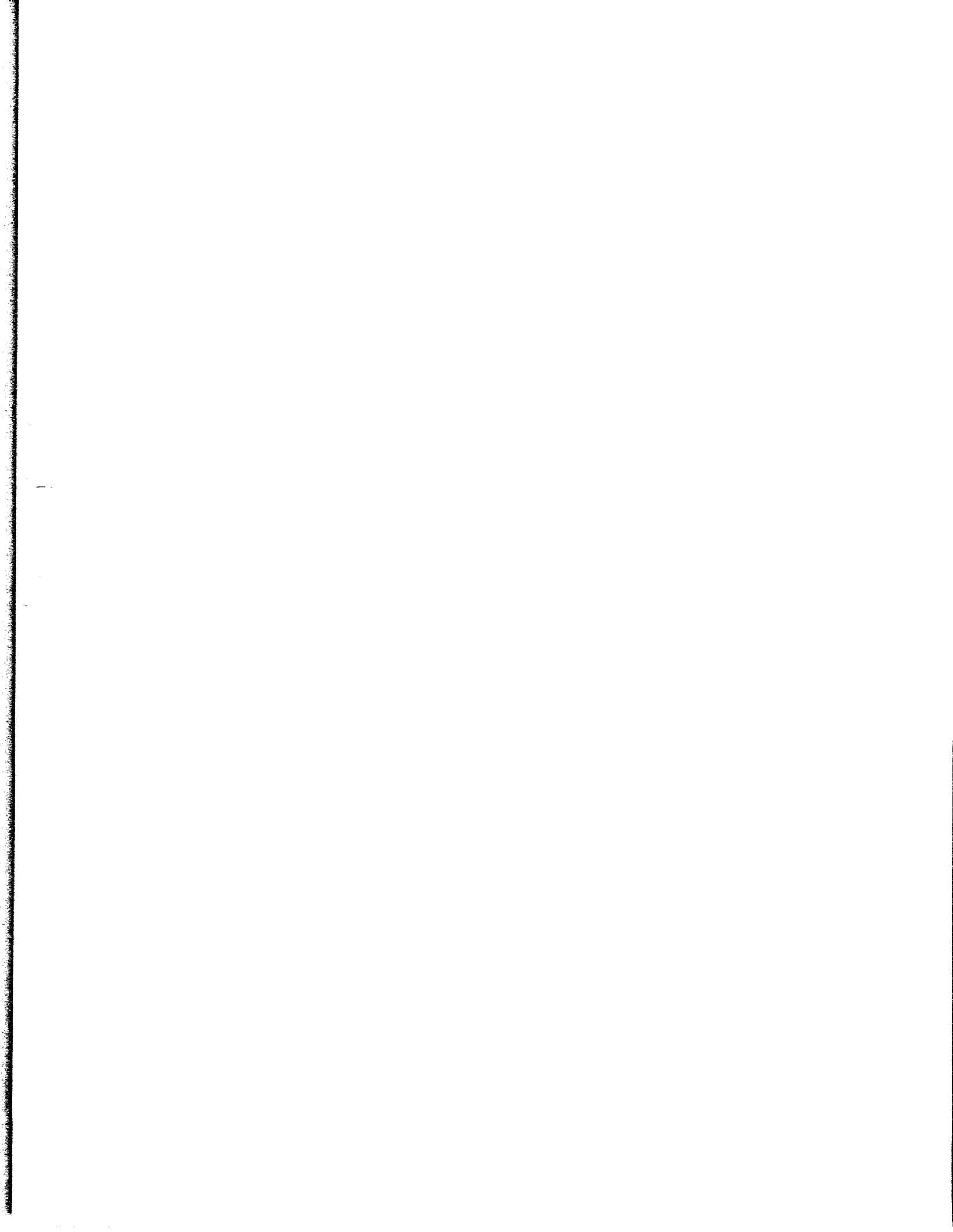


TABLE 2.--FREEZE DATES IN SPRING AND FALL
(Recorded in the period 1928-71 at Winnemucca, Nevada)

Probability	Temperature		
	24 degrees F. or lower	28 degrees F. or lower	32 degrees F. or lower
Last freezing temperature in spring:			
1 year in 10 later than--	May 19	June 12	July 20
2 years in 10 later than--	May 11	June 2	July 6
5 years in 10 later than--	April 26	May 14	June 9
First freezing temperature in fall:			
1 year in 10 earlier than--	September 18	September 9	August 30
2 years in 10 earlier than--	September 24	September 14	September 4
5 years in 10 earlier than--	October 6	September 25	September 13

TABLE 2.--FREEZE DATES IN SPRING AND FALL
(Recorded in the period 1951-90 at Paradise Valley, Nevada)

Probability	Temperature		
	24 degrees F. or lower	28 degrees F. or lower	32 degrees F. or lower
Last freezing temperature in spring:			
1 year in 10 later than--	June 12	June 23	August 13
2 years in 10 later than--	May 31	June 13	July 28
5 years in 10 later than--	May 10	May 26	June 27
First freezing temperature in fall:			
1 year in 10 earlier than--	September 11	September 4	August 21
2 years in 10 earlier than--	September 18	September 8	August 27
5 years in 10 earlier than--	October 2	September 17	September 6

TABLE 2.--FREEZE DATES IN SPRING AND FALL
(Recorded in the period 1957-90 at Kings River Valley, Nevada)

Probability	Temperature		
	24 degrees F. or lower	28 degrees F. or lower	32 degrees F. or lower
Last freezing temperature in spring:			
1 year in 10 later than--	June 28	July 9	July 28
2 years in 10 later than--	June 12	June 24	July 12
5 years in 10 later than--	May 11	May 25	June 12
First freezing temperature in fall:			
1 year in 10 earlier than--	September 7	September 2	August 30
2 years in 10 earlier than--	September 17	September 10	September 6
5 years in 10 earlier than--	October 5	September 27	September 18

TABLE 2.--FREEZE DATES IN SPRING AND FALL
(Recorded in the period 1971-90 at McDermitt, Nevada)

Probability	Temperature		
	24 degrees F. or lower	28 degrees F. or lower	32 degrees F. or lower
Last freezing temperature in spring:			
1 year in 10 later than--	June 11	August 2	September 1
2 years in 10 later than--	June 2	July 21	August 17
5 years in 10 later than--	May 17	June 28	July 20
First freezing temperature in fall:			
1 year in 10 earlier than--	September 5	August 29	August 14
2 years in 10 earlier than--	September 11	September 2	August 19
5 years in 10 earlier than--	September 22	September 9	August 29

TABLE 2.--FREEZE DATES IN SPRING AND FALL
 (Recorded in the period 1948-90 at Orovada, Nevada)

Probability	Temperature		
	24 degrees F. or lower	28 degrees F. or lower	32 degrees F. or lower
Last freezing temperature in spring:			
1 year in 10 later than--	May 17	May 26	June 21
2 years in 10 later than--	May 9	May 19	June 14
5 years in 10 later than--	April 25	May 5	June 1
First freezing temperature in fall:			
1 year in 10 earlier than--	September 22	September 11	September 7
2 years in 10 earlier than--	September 30	September 18	September 12
5 years in 10 earlier than--	October 15	October 1	September 21

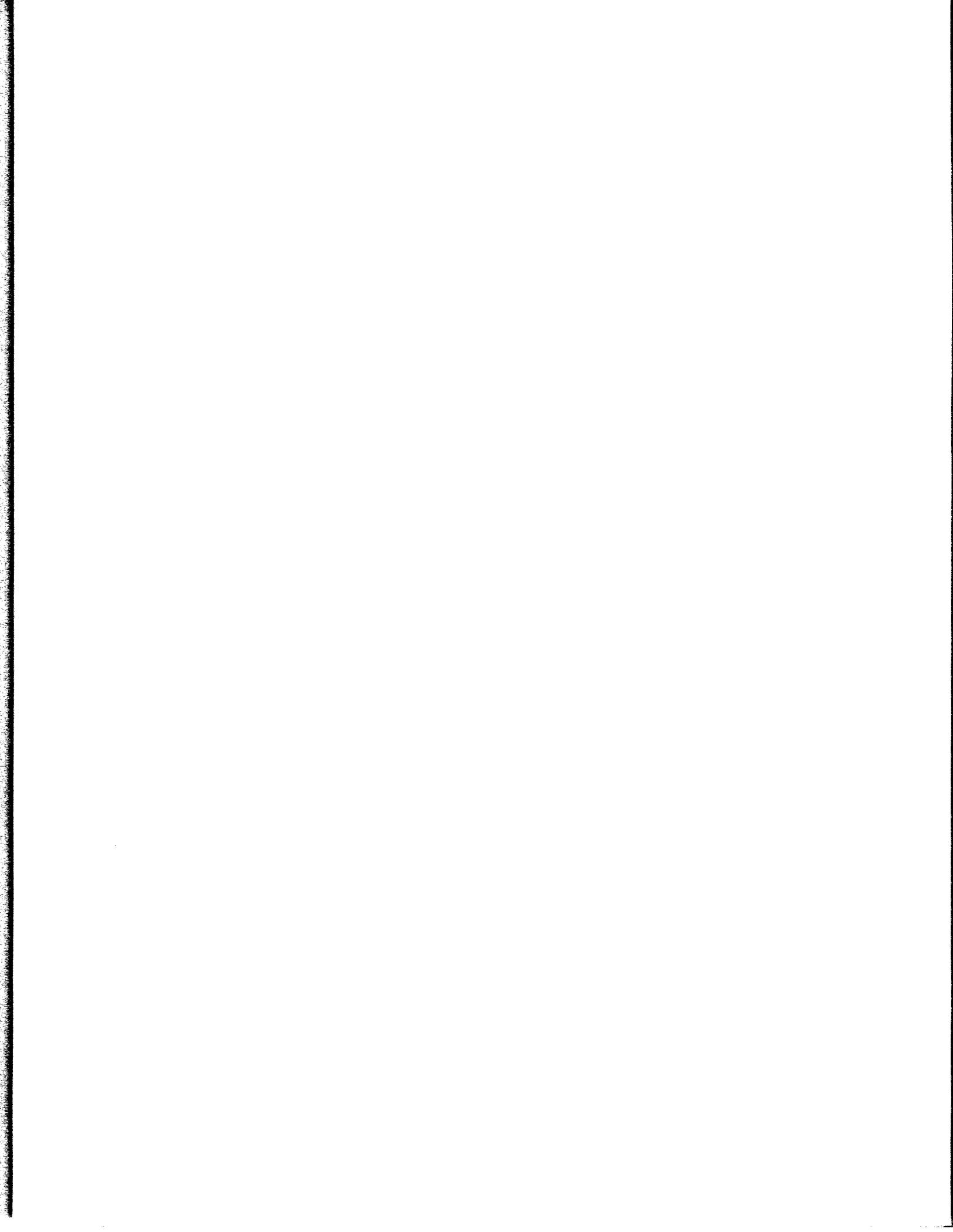


TABLE 3.--GROWING SEASON

(Recorded in the period 1928-90 at Winnemucca, Nevada.)

Probability	Daily Minimum Temperature during growing season		
	Higher than 24 degrees F.	Higher than 28 degrees F.	Higher than 32 degrees F.
	<u>Days</u>	<u>Days</u>	<u>Days</u>
9 years in 10	148	123	75
8 years in 10	159	135	92
5 years in 10	181	159	126
2 years in 10	203	183	159
1 year in 10	214	196	177

TABLE 3.--GROWING SEASON

(Recorded in the period 1951-90 at Paradise Valley, Nevada)

Probability	Daily Minimum Temperature during growing season		
	Higher than 24 degrees F.	Higher than 28 degrees F.	Higher than 32 degrees F.
	<u>Days</u>	<u>Days</u>	<u>Days</u>
9 years in 10	122	104	43
8 years in 10	136	117	63
5 years in 10	163	140	100
2 years in 10	190	164	138
1 year in 10	204	176	157

TABLE 3.--GROWING SEASON

(Recorded in the period 1957-90 at Kings River Valley, Nevada)

Probability	Daily Minimum Temperature during growing season		
	Higher than 24 degrees F.	Higher than 28 degrees F.	Higher than 32 degrees F.
	<u>Days</u>	<u>Days</u>	<u>Days</u>
9 years in 10	92	86	41
8 years in 10	115	106	66
5 years in 10	160	146	112
2 years in 10	205	186	158
1 year in 10	229	207	182

TABLE 3.--GROWING SEASON
 (Recorded in the period 1971-90 at McDermitt, Nevada)

Probability	Daily Minimum Temperature during growing season		
	Higher than 24 degrees F.	Higher than 28 degrees F.	Higher than 32 degrees F.
	<u>Days</u>	<u>Days</u>	<u>Days</u>
9 years in 10	122	57	13
8 years in 10	131	71	33
5 years in 10	147	98	70
2 years in 10	162	125	108
1 year in 10	171	140	127

TABLE 3.--GROWING SEASON
 (Recorded in the period 1948-1990 in Orovada, Nevada)

Probability	Daily Minimum Temperature during growing season		
	Higher than 24 degrees F.	Higher than 28 degrees F.	Higher than 32 degrees F.
	<u>Days</u>	<u>Days</u>	<u>Days</u>
9 years in 10	155	142	113
8 years in 10	166	153	122
5 years in 10	187	173	139
2 years in 10	208	193	157
1 year in 10	219	204	166

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Acres	percent
100	Anawalt-Vanwyper-Alyan association-----	40,722	1.0
101	Anawalt-Ninemile-Alyan association-----	23,262	0.6
102	Anawalt-Ninemile-Tusk association-----	8,114	0.2
106	Anawalt-Ninemile-Alyan association, cool-----	4,312	0.1
107	Anawalt-Ninemile-Tusk association, cool-----	14,926	0.4
108	Anawalt-Ninemile-Alyan association, steep-----	3,846	*
110	Adelaide silt loam, 2 to 8 percent slopes-----	10,048	0.3
120	Bregar-Tusk association-----	1,259	*
122	Bregar-Tusel-Cleavage association-----	6,474	0.2
131	Benin silt loam-----	5,777	0.1
133	Benin silt loam, sodic-----	1,504	*
141	Beoska-Bluewing association-----	3,809	*
143	Beoska-Broyles association-----	2,737	*
144	Beoska-Dun Glen association-----	3,489	*
145	Beoska-Weso association-----	6,537	0.2
151	Blackhawk silt loam, 0 to 2 percent slopes-----	1,209	*
152	Blackhawk silt loam, 2 to 8 percent slopes-----	4,551	0.1
154	Blackhawk-Golconda-Orovada association-----	23,016	0.6
155	Blackhawk loamy fine sand, 0 to 2 percent slopes-----	2,126	*
156	Blackhawk-Clurde association-----	4,723	0.1
157	Blackhawk-Broyles association-----	2,367	*
158	Blackhawk-Trocken association-----	4,130	0.1
160	Bliss fine sandy loam, 2 to 8 percent slopes-----	17,870	0.5
161	Bliss-Chiara association-----	6,236	0.2
163	Bliss-Shabliss association-----	4,353	0.1
165	Bliss-Dugchip-Orovada association-----	11,955	0.3
166	Bliss-Orovada-Shabliss association-----	16,784	0.4
167	Bliss-Blackhawk-Adelaide association-----	12,848	0.3
169	Bliss-Orovada association-----	13,168	0.3
171	Bubus very fine sandy loam, moderately saline, 0 to 2 percent slopes-----	18,966	0.5
174	Bubus-Needle Peak association-----	8,335	0.2
178	Bubus-Frehle complex, 0 to 2 percent slopes-----	17,842	0.5
184	Chiara-McConnel association-----	2,349	*
185	Chiara-Dacker-McConnel association-----	22,292	0.6
186	Chiara-Runnton association-----	10,064	0.3
187	Chiara-Boger association-----	7,038	0.2
188	Chiara association-----	9,513	0.2
190	Beeox-Oxcorel association-----	11,890	0.3
191	Beeox-Connel association-----	1,681	*
192	Beeox-Bliss association-----	1,023	*
200	Davey loamy fine sand, moderately saline, 2 to 4 percent slopes-----	2,460	*
201	Davey loamy fine sand, 2 to 8 percent slopes-----	6,078	0.2
202	Davey loamy fine sand, 0 to 2 percent slopes-----	6,887	0.2
203	Davey-Goldrun association-----	19,804	0.5
204	Davey-Blackhawk association-----	11,670	0.3
205	Davey-Hawsley association-----	10,107	0.3
206	Davey-Broyles-Dun Glen association-----	2,284	*
207	Davey-Pumper association-----	6,206	0.2
208	Davey fine sandy loam, 0 to 2 percent slopes-----	1,413	*
210	Flue-Connel association-----	5,040	0.1
211	Flue-Golconda-Snapp association-----	10,347	0.3
212	Flue-Orovada association-----	2,066	*
213	Flue-Puett association-----	2,345	*
215	Flue-Snapp association-----	5,935	0.2
216	Flue very fine sandy loam, 2 to 4 percent slopes-----	3,447	*
217	Flue loam, 0 to 2 percent slopes-----	2,747	*
218	Flue-Snapp-Rodock association-----	9,754	0.3
222	Bloor very fine sandy loam, 0 to 2 percent slopes-----	6,778	0.2
231	Dun Glen very fine sandy loam, 2 to 4 percent slopes-----	4,129	0.1
233	Dun Glen very fine sandy loam, 0 to 2 percent slopes-----	9,713	0.2
241	Sojour extremely channery silt loam, 15 to 50 percent slopes-----	10,661	0.3
250	Connel-Davey-Goldrun complex, 4 to 30 percent slopes-----	5,628	0.1
251	Connel very fine sandy loam, 2 to 4 percent slopes-----	4,300	0.1
252	Connel gravelly fine sandy loam, 0 to 2 percent slopes-----	3,706	*

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	percent
253	Connel-McConnel complex, 0 to 2 percent slopes	8,887	0.2
254	Connel-Zevadez association	3,856	*
255	Connel-McConnel complex, rarely flooded, 0 to 2 percent slopes	13,912	0.4
257	Connel very fine sandy loam, 0 to 2 percent slopes	4,099	0.1
258	Connel very fine sandy loam, slightly saline, 0 to 2 percent slopes	2,321	*
262	Golconda-Snapp association	13,828	0.4
263	Golconda-Bliss-Connel association	5,600	0.1
270	Goldrun fine sand, 2 to 15 percent slopes	10,024	0.3
271	Goldrun loamy fine sand, 0 to 2 percent slopes	2,258	*
272	Goldrun loamy fine sand, 2 to 4 percent slopes	2,793	*
274	Goldrun-Benin complex, 0 to 15 percent slopes	7,301	0.2
275	Goldrun-Preble complex, 0 to 15 percent slopes	1,801	*
281	Golsum-Spinlin-Harcany association	32,521	0.8
290	Havingdon-Burrita association	12,614	0.3
292	Havingdon-Gowjai-Walti association	1,162	*
302	Essal-Playas-Isolde association	4,067	0.1
305	Essal-Isolde-Hawley association	3,222	*
307	Essal-Tressed-Isolde association	1,608	*
311	Harcany-Croesus-Hackwood association	610	*
312	Harcany-Hackwood-Cleavage association	3,176	*
321	Humboldt silty clay loam	26,611	0.7
322	Humboldt silty clay loam, strongly saline	1,030	*
325	Humboldt-Wendane complex	4,673	0.1
330	McConnel fine sandy loam, 0 to 2 percent slopes	4,960	0.1
331	McConnel gravelly fine sandy loam, 2 to 8 percent slopes	13,722	0.4
333	McConnel-Shabliss association	2,846	*
335	McConnel very gravelly fine sandy loam, 0 to 2 percent slopes	5,471	0.1
338	McConnel-Pumper-Whirlo complex, 2 to 8 percent slopes	15,675	0.4
340	Boger-Soughe association	7,490	0.2
342	Boger-Goosel-Soughe association	4,267	0.1
343	Boger cobbly silt loam, 2 to 4 percent slopes	3,469	*
351	Goldrun-Prideen-Playas complex, 0 to 15 percent slopes	4,319	0.1
352	Goldrun-Kleck-Davey complex, 0 to 15 percent slopes	16,289	0.4
360	Needle Peak silt loam	6,347	0.2
363	Needle Peak-Batan-Goldrun association	5,069	0.1
370	Wieland association	3,200	*
380	Bullump-Tusel association	8,008	0.2
381	Bullump-Tusel-Hackwood association	9,262	0.2
391	Aycab-Rock outcrop association	5,355	0.1
403	Orovada fine sandy loam, 0 to 2 percent slopes	15,124	0.4
406	Orovada very fine sandy loam, 2 to 8 percent slopes	13,301	0.3
407	Orovada loam, 0 to 2 percent slopes	9,177	0.2
409	Orovada-Goldrun association	2,011	*
410	Orovada-Bliss association	13,459	0.3
411	Orovada-Dugchip association	2,604	*
417	Orovada-Connel complex, 0 to 2 percent slopes	5,293	0.1
420	Bubus silt loam, 0 to 2 percent slopes	305	*
431	Preble very fine sandy loam	3,727	*
432	Preble-Goldrun-Playas association	15,214	0.4
435	Preble silt loam	957	*
436	Preble-Valmy association	3,285	*
437	Preble-Davey association	2,289	*
438	Preble-Bubus association	12,457	0.3
440	Prideen silt loam, strongly saline	25,303	0.6
441	Prideen silt loam	3,947	0.1
452	Kingsriver loam, 0 to 2 percent slopes	2,395	*
453	Kingsriver loam, drained, 0 to 2 percent slopes	3,570	*
460	Rad loamy fine sand, 4 to 8 percent slopes	2,217	*
461	Rad fine sandy loam, 0 to 2 percent slopes	4,925	0.1
462	Rad fine sandy loam, 2 to 4 percent slopes	2,776	*
470	Raglan silt loam, 0 to 2 percent slopes	4,586	0.1
471	Raglan silt loam, strongly saline, 0 to 2 percent slopes	20,416	0.5
474	Raglan-Kleck complex, 0 to 2 percent slopes	8,125	0.2
480	Rebel loam, 0 to 2 percent slopes	7,227	0.2

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	percent
487	Rebel fine sandy loam, 0 to 2 percent slopes -----	1,827	*
490	Rose Creek loam -----	2,584	*
491	Rose Creek silt loam, drained -----	732	*
492	Rose Creek silty clay loam -----	420	*
501	Enko loamy very fine sand, 0 to 2 percent slopes -----	4,843	0.1
502	Enko-Goldrun association -----	9,674	0.2
503	Enko very fine sandy loam, 0 to 2 percent slopes -----	5,136	0.1
504	Enko-Shabliss complex, 2 to 8 percent slopes -----	1,701	*
505	Enko very fine sandy loam, 2 to 8 percent slopes -----	7,572	0.2
507	Enko-Shabliss-Orovada association -----	2,772	*
511	Mazuma-Trocken association -----	10,040	0.3
520	Lunder-Devada association -----	3,966	0.1
522	Lunder-Hunnton association -----	5,561	0.1
530	Shabliss very fine sandy loam, 2 to 15 percent slopes -----	3,914	0.1
532	Shabliss-Enko-Valmy association -----	683	*
533	Shabliss-Connel association -----	6,185	0.2
534	Shabliss-Puett association -----	5,161	0.1
536	Shabliss-Enko-Dugchip association -----	2,582	*
537	Shabliss-Bliss-Genaw association -----	6,724	0.2
543	Pumper-Connel association -----	3,949	0.1
544	Pumper-Weso association -----	36,266	0.9
545	Pumper-Dun Glen-Davey association -----	1,771	*
551	Ninemile-Carstump association -----	1,229	*
552	Ninemile-Vanwyper association -----	9,155	0.2
553	Ninemile-Tusk association -----	18,104	0.5
555	Ninemile-Tusel-Alyan association -----	13,348	0.3
557	Ninemile very stony loam, 4 to 15 percent slopes -----	718	*
558	Ninemile-Anawalt-Vanwyper association -----	5,338	0.1
559	Ninemile-Devada-Rock outcrop association -----	8,104	0.2
561	Sonoma silt loam, strongly saline -----	13,408	0.3
562	Sonoma silty clay loam, occasionally flooded -----	6,978	0.2
563	Sonoma silty clay loam, strongly saline -----	1,305	*
564	Sonoma silt loam, drained -----	1,152	*
566	Sonoma-Paranat complex -----	7,364	0.2
567	Sonoma silty clay loam, frequently flooded -----	586	*
573	Spinlin-Harcany-Hackwood association -----	3,153	*
574	Spinlin-Hackwood-Tusel association -----	1,427	*
580	Sumine-Ninemile-Softscrabble association -----	22,481	0.6
581	Sumine-Gosumi-Nomara association -----	10,526	0.3
582	Sumine-Ninemile-Anawalt association -----	5,053	0.1
583	Sumine-Gosumi-Harcany association -----	11,479	0.3
584	Sumine-Ninemile-Tusel association -----	13,339	0.3
585	Sumine-Rock outcrop-Ninemile association -----	1,356	*
586	Sumine-Rubble land-Reluctan association -----	3,093	*
587	Sumine-Gosumi-Harcany association, cool -----	1,408	*
588	Sumine-Cleavage-Rubble land association -----	3,935	0.1
589	Sumine-Ninemile-Harcany association -----	4,194	0.1
590	Trunk-Madeline association -----	733	*
592	Trunk-Pocan association -----	3,683	*
593	Trunk-Vanwyper-Panlee association -----	5,907	0.2
594	Trunk-Burrita-Quomus association -----	12,366	0.3
596	Trunk-Burrita association -----	40,382	1.0
597	Trunk, gravelly-Burrita association -----	6,619	0.2
600	Valmy fine sandy loam, 0 to 2 percent slopes -----	23,109	0.6
603	Valmy-Goldrun complex, 0 to 8 percent slopes -----	6,828	0.2
604	Valmy-Subus-Needle Peak complex, 0 to 2 percent slopes -----	13,726	0.4
606	Valmy loam, 0 to 2 percent slopes -----	1,486	*
611	Weso loamy sand, 4 to 8 percent slopes -----	2,516	*
613	Weso-Orovada-Shabliss association -----	2,866	*
614	Weso silt loam, moderately saline, 0 to 2 percent slopes -----	3,411	*
615	Weso fine sandy loam, 0 to 2 percent slopes -----	27,247	0.7
617	Weso loam, 2 to 4 percent slopes -----	2,245	*
618	Weso-Kelk association -----	1,543	*
619	Weso-Rebel complex, 0 to 2 percent slopes -----	3,699	*

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	percent
620	Carstump-Soughe-Ninemile association-----	6,193	0.2
631	Burrita-Panlee association-----	2,202	*
633	Burrita-Midraw association-----	4,191	0.1
634	Burrita-Devada-Zymans association-----	10,382	0.3
636	Burrita-Rubble land-Clementine association-----	5,129	0.1
637	Burrita-Dewar association-----	7,348	0.2
638	Burrita-Soughe-Panlee association-----	6,046	0.2
640	Clementine silt loam, drained-----	4,805	0.1
641	Clementine, drained-Paranat complex-----	3,657	*
642	Clementine-Rose Creek complex-----	1,388	*
646	Clementine-Paranat complex-----	767	*
651	Burrita-Soughe-Atlow association-----	9,097	0.2
652	Burrita-Havingdon-Reluctan association-----	8,614	0.2
653	Burrita-Vanwyper-Havingdon association-----	17,602	0.5
654	Burrita-Panlee-Rock outcrop association-----	2,200	*
655	Soughe-Hoot association-----	71,607	1.8
657	Burrita-Snowmore-Rock outcrop association-----	7,997	0.2
658	Burrita-Panlee-Burrita, very gravelly association-----	34,046	0.9
660	Oxcorel-Beoska-Whirlo association-----	48,032	1.2
661	Oxcorel-Orovada association-----	6,159	0.2
663	Oxcorel-Weso-Beoska association-----	4,472	0.1
664	Oxcorel-Golconda association-----	906	*
665	Oxcorel-Snapp association-----	11,157	0.3
669	Oxcorel-Dewar-Soughe association-----	5,449	0.1
670	Devada-Goosel association-----	27,578	0.7
671	Devada-Burrita-Rock outcrop association-----	13,622	0.3
673	Devada association-----	14,733	0.4
676	Devada-Snowmore-Midraw association-----	8,237	0.2
677	Devada-Ninemile-Burrita association-----	2,987	*
678	Devada-Rubble land association-----	3,316	*
680	Soughe-Trunk-Rock outcrop association-----	2,019	*
690	Sodhouse-Golconda association-----	1,255	*
691	Sodhouse-Chiara association-----	647	*
700	Atlow-Gowjai association-----	1,268	*
701	Atlow-Wiskan association-----	15,651	0.4
704	Atlow-Hoot association-----	4,091	0.1
710	Kipe silt loam-----	1,620	*
720	Dewar-Sodhouse association-----	1,191	*
721	Dewar-Laped-Orovada association-----	2,407	*
722	Dewar-Flue-Burrita association-----	10,561	0.3
724	Dewar-Soughe-Hoot association-----	6,795	0.2
726	Dewar association-----	30,163	0.8
727	Dewar-Midraw association-----	15,133	0.4
728	Dewar-Midraw-Devada association-----	20,355	0.5
729	Dewar-Boger association-----	10,103	0.3
732	Kelk association-----	6,428	0.2
733	Kelk-Enko complex, 0 to 2 percent slopes-----	2,968	*
734	Kelk silt loam, occasionally flooded, 0 to 2 percent slopes-----	3,468	*
736	Kelk-Kortty association-----	2,104	*
740	Gowjai-Vanwyper-Sumine association-----	3,521	*
750	Snapp-Oxcorel association-----	4,982	0.1
751	Snapp-Sodhouse association-----	1,030	*
752	Snapp-Orovada association-----	7,223	0.2
753	Snapp-Dugchip-Connel association-----	4,900	0.1
754	Snapp-Fuett association-----	17,328	0.4
755	Snapp-Connel association-----	3,206	*
756	Snapp-McConnel-Adelaide association-----	16,844	0.4
760	Piline complex-----	1,047	*
761	Piline silty clay-----	405	*
772	Broyles-Orovada association-----	31,748	0.8
773	Broyles very fine sandy loam, moderately saline, 0 to 2 percent slopes-----	13,971	0.4
774	Broyles very fine sandy loam, 0 to 2 percent slopes-----	12,910	0.3
775	Broyles-Bubus-Goldrun association-----	5,422	0.1
780	Dacker-Chiara association-----	3,257	*

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	percent
781	Dacker-Bilbo association-----	4,589	0.1
782	Dacker-Devada-Snowmore association-----	2,146	*
790	Rio King loam -----	5,118	0.1
791	Rio King loam, slightly saline -----	9,568	0.2
800	Udelope-Bregar-Rock outcrop association-----	3,495	*
801	Udelope-Hackwood-Tusel association-----	5,327	0.1
810	Batan-Goldrun association-----	10,172	0.3
811	Batan complex-----	7,869	0.2
813	Batan silt loam, 0 to 2 percent slopes -----	984	*
815	Batan-Prideen-Wendane complex-----	8,729	0.2
818	Batan-Goldrun-Bubus complex, 0 to 30 percent slopes-----	11,231	0.3
823	Whirlo-Orovada-Snapp association-----	8,534	0.2
825	Whirlo-Oxcorel-Weso association-----	33,337	0.9
831	Boton-Playas association-----	33,786	0.9
833	Boton-Isolde association-----	5,774	0.1
834	Boton-Davey association-----	2,134	*
840	Dugchip-Flue-Dewar association-----	21,150	0.5
842	Dugchip-Kelk association-----	2,575	*
844	Dugchip-Chiara association-----	2,662	*
845	Dugchip-Needle Peak complex, 0 to 4 percent slopes -----	4,005	0.1
860	Goosel-Devada-Vanwyper association-----	26,121	0.7
861	Goosel very fine sandy loam, 0 to 4 percent slopes-----	4,390	0.1
862	Goosel-Devada association-----	7,565	0.2
863	Goosel-Midraw association-----	2,109	*
880	Cleavage-Sumine-Harcany association-----	4,926	0.1
881	Cleavage-Burrita-Bregar association-----	7,650	0.2
882	Cleavage-Rock outcrop association-----	977	*
883	Cleavage-Tusel-Anawalt association-----	2,997	*
884	Cleavage-Anawalt-Tusel association-----	4,942	0.1
885	Cleavage-Reluctan association-----	4,027	0.1
886	Cleavage-Bullump association-----	1,164	*
891	Softscrabble-Cleavage-Harcany association-----	1,058	*
892	Softscrabble-Cleavage-Ninemile association-----	3,133	*
900	Roca-Bregar-Linrose association-----	14,189	0.4
901	Roca-Reluctan association-----	19,531	0.5
902	Roca-Alyan-Quomus association-----	15,326	0.4
903	Roca-Walti-Reluctan association-----	14,742	0.4
907	Roca-Climine-Rock outcrop association-----	5,600	0.1
909	Roca-Nomara-Rock outcrop association-----	1,143	*
911	Barnard-Devada association-----	5,463	0.1
921	Walti-Sumine-Reluctan association-----	13,479	0.3
922	Walti-Reluctan-Tusel association-----	11,893	0.3
923	Walti-Tusel-Anawalt association-----	5,954	0.2
924	Walti-Tusk-Alyan association-----	6,886	0.2
930	Tenabo-Oxcorel association-----	2,962	*
940	Soughe-Soughe, very steep-Rock outcrop association-----	6,376	0.2
941	Soughe-Rock outcrop association-----	2,486	*
942	Soughe-Ninemile-Rock outcrop association-----	6,211	0.2
943	Soughe-Vanwyper association-----	13,684	0.4
944	Soughe-Vanwyper-Rock outcrop association-----	7,424	0.2
946	Soughe-Rubble land complex, 30 to 75 percent slopes-----	9,668	0.2
947	Soughe association-----	10,628	0.3
954	Puffer-Xine-Rock outcrop association-----	1,397	*
955	Puffer-Soughe-Rock outcrop association-----	4,421	0.1
960	Zevadez-Wieland-Kelk association-----	2,220	*
962	Zevadez-Vanwyper association-----	3,532	*
963	Zevadez-McConnel association-----	5,170	0.1
964	Zevadez loam, 2 to 4 percent slopes -----	479	*
970	Gosumi-Walti association-----	5,234	0.1
980	Snowmore association-----	652	*
981	Snowmore-Zevadez association-----	392	*
983	Snowmore-Devada association-----	27,382	0.7
984	Snowmore-Vanwyper-Devada association-----	4,069	0.1
990	Playas-----	17,083	0.4

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	percent
994	Dune land-----	22,648	0.6
995	Dune land-Goldrun-Davey association-----	3,729	*
998	Dumps-Pits complex-----	1,497	*
999	Slickens-----	478	*
1004	Soughe-Davey association-----	4,293	0.1
1005	Soughe-Flue association-----	2,561	*
1007	Soughe-Puett-Burrita association-----	4,687	0.1
1010	Bartome-Chiara association-----	989	*
1020	Wholan very fine sandy loam, 0 to 2 percent slopes-----	1,042	*
1023	Wholan-Bliss-Enko association-----	7,206	0.2
1025	Wholan silt loam, 0 to 2 percent slopes-----	3,140	*
1030	Bullump-Westbutte-Harcany association-----	1,420	*
1031	Bullump-Sumine-Cleavage association-----	8,395	0.2
1050	Argenta fine sandy loam-----	12,478	0.3
1051	Argenta-Preble complex-----	8,788	0.2
1052	Argenta, rarely flooded-Preble complex-----	20,451	0.5
1055	Argenta silt loam, rarely flooded-----	3,266	*
1060	Paranat silty clay loam, drained-----	6,287	0.2
1061	Paranat silt loam-----	18,883	0.5
1064	Paranat complex-----	6,161	0.2
1066	Paranat very fine sandy loam-----	1,411	*
1067	Paranat silt loam, sodic-----	2,690	*
1072	Hoot-Laped-Rubble land association-----	2,828	*
1075	Hoot-Panlee-Rock outcrop association-----	22,691	0.6
1077	Hoot-Rock outcrop-Soughe association-----	3,240	*
1078	Hoot-Genaw association-----	1,485	*
1090	Soclake-Argenta association-----	1,173	*
1100	Wendane silt loam, occasionally flooded-----	6,799	0.2
1101	Wendane silt loam-----	13,746	0.4
1102	Wendane complex-----	49,868	1.3
1104	Wendane-Sonoma complex-----	5,507	0.1
1110	Theon very cobbly loam, 15 to 50 percent slopes-----	179	*
1120	Relley-Kalk association-----	837	*
1140	Layview-Tusel association-----	6,452	0.2
1142	Layview-Udelope association-----	1,053	*
1150	Cotant-Say association-----	2,457	*
1151	Cotant-Say-Gol association-----	2,264	*
1160	Hawsley fine sand, 0 to 4 percent slopes-----	17,621	0.5
1161	Hawsley-Isolde association-----	30,167	0.8
1162	Hawsley-Davey-Mazuma association-----	3,726	*
1167	Hawsley fine sand, 4 to 15 percent slopes-----	3,322	*
1168	Hawsley-Davey-Essal association-----	2,874	*
1169	Hawsley-Soughe-Panlee association-----	1,542	*
1170	Hunnton-Bliss-Trunk association-----	1,794	*
1171	Hunnton-Dugchip-Orovada association-----	3,482	*
1172	Hunnton-Flue-McConnel association-----	17,110	0.4
1173	Hunnton very fine sandy loam, 2 to 8 percent slopes-----	12,346	0.3
1174	Hunnton-Zevadez-Enko association-----	13,907	0.4
1175	Hunnton-Goosel-Connel association-----	11,585	0.3
1176	Hunnton-Dacker association-----	7,023	0.2
1180	Roccoonda-Hoot association-----	16,918	0.4
1181	Roccoonda-Soughe-Hoot association-----	10,499	0.3
1184	Roccoonda-Rock outcrop-Panlee association-----	3,536	*
1185	Roccoonda-Quomus-Atlow association-----	7,948	0.2
1186	Roccoonda-Burrita-Midraw association-----	4,507	0.1
1187	Roccoonda-Panlee-Hoot association-----	5,663	0.1
1188	Roccoonda association-----	19,962	0.5
1189	Roccoonda-Soughe association-----	1,639	*
1192	Enko fine sandy loam, 2 to 4 percent slopes-----	2,432	*
1194	Enko loam, 0 to 2 percent slopes-----	821	*
1200	Erakatak-Madeline association-----	278	*
1201	Erakatak-Ninemile-Harcany association-----	548	*
1202	Erakatak-Bullump-Rock outcrop association-----	1,489	*
1210	Cresal-Playas association-----	4,549	0.1

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	percent
1211	Cresal silt loam, 0 to 2 percent slopes	3,725	*
1212	Cresal-Tresed-Playas complex	5,863	0.2
1221	Alyan-Bilbo association	7,702	0.2
1230	Knott-Sodhouse-Wholan association	11,157	0.3
1240	Laped very stony very fine sandy loam, 4 to 15 percent slopes	6,741	0.2
1241	Laped-Boger association	2,879	*
1255	Dutchjohn-Cleavage Bregar association	9,290	0.2
1260	Weso-Trocken association	2,970	*
1271	Gol-Say-Rock outcrop association	15,051	0.4
1285	Igdell-Gochea association	1,264	*
1291	Tresed-Isolde association	7,564	0.2
1292	Tresed loamy very fine sand	8,833	0.2
1310	Dewar-Tenabo association	29,875	0.8
1312	Dewar-Dacker association	31,267	0.8
1313	Dewar-Sodhouse-Midraw association	14,529	0.4
1314	Dewar-Zevadez association	6,679	0.2
1315	Dewar-Chiara-Burrita association	2,817	*
1321	Vanwyper-Midraw association	20,700	0.5
1322	Vanwyper-Devada association	35,067	0.9
1324	Vanwyper-Panlee-Gowjai association	6,478	0.2
1327	Vanwyper-Gowjai-Soughe association	17,592	0.5
1331	Siscab-Aycab-Ola association	4,231	0.1
1332	Siscab-Ola-Rock outcrop association	3,071	*
1333	Siscab-Say-Rock outcrop association	8,090	0.2
1334	Siscab-Eaglerock-Rock outcrop association	2,007	*
1335	Siscab-Westbutte-Rock outcrop association	3,076	*
1341	Longcreek-Menbo-Rock outcrop association	11,370	0.3
1342	Longcreek-Rock outcrop complex, 50 to 75 percent slopes	1,059	*
1344	Longcreek-Softscrabble-Anawalt association	5,039	0.1
1345	Longcreek-Zymans association	6,793	0.2
1360	Midraw association	8,617	0.2
1362	Midraw-Hunnton association	10,558	0.3
1371	Devada-Vanwyper association	1,908	*
1373	Devada-Zymans association	4,347	0.1
1380	Genaw-Soughe-Roccoonda association	3,788	*
1381	Genaw-Trunk-Devada association	4,107	0.1
1382	Genaw-Puett association	4,337	0.1
1390	Mulhop-Xine-Rock outcrop association	355	*
1400	Madeline-Anawalt-Vanwyper association	4,126	0.1
1410	Say-Tosp-Aycab association	15,232	0.4
1411	Say-Aycab association	2,474	*
1420	Panlee-Burrita association	28,501	0.7
1421	Panlee-Davey-Soughe association	21,144	0.5
1423	Panlee-Vanwyper-Carstump association	6,118	0.2
1431	Rodock-Hunnton association	5,489	0.1
1432	Rodock-Connel complex, 0 to 2 percent slopes	9,666	0.2
1433	Rodock gravelly sandy loam, 0 to 2 percent slopes	805	*
1436	Rodock loam, 0 to 2 percent slopes	2,129	*
1437	Rodock very fine sandy loam, slightly saline, 0 to 2 percent slopes	1,646	*
1450	Wiskan-Climine association	993	*
1460	Ninemile-Reluctan-Anawalt association	10,889	0.3
1461	Ninemile-Tusel-Alyan association, cool	6,201	0.2
1462	Ninemile-Anawalt association	4,717	0.1
1464	Ninemile-Anawalt-Sumine association	1,849	*
1465	Ninemile-Cleavage-Tusel association	4,851	0.1
1466	Ninemile-Bullump-Tusel association	8,242	0.2
1467	Ninemile-Udelope-Tusel association	7,908	0.2
1468	Ninemile-Softscrabble association	17,822	0.5
1469	Ninemile-Softscrabble-Sumine association	12,513	0.3
1470	Zymans-Burrita-Devada association	24,263	0.6
1471	Zymans-Burrita-Soughe association	23,927	0.6
1472	Zymans-Burrita association	19,927	0.5
1473	Zymans-Genaw association	6,422	0.2
1480	Tusel-Rock outcrop complex, 30 to 50 percent slopes	1,267	*

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	percent
1481	Tusel-Cleavage complex, 30 to 50 percent slopes-----	432	*
1482	Tusel-Layview association-----	2,074	*
1483	Tusel-Hackwood-Spinlin association-----	5,153	0.1
1484	Tusel-Ninemile-Cleavage association-----	1,286	*
1500	Eaglerock-Acrelane-Rock outcrop association-----	15,013	0.4
1520	Croesus-Rock outcrop complex, 50 to 75 percent slopes-----	402	*
1521	Croesus-Rock outcrop complex, 8 to 30 percent slopes-----	1,441	*
1522	Croesus-Harcany-Rock outcrop association-----	495	*
1523	Croesus-Udelope-Layview association-----	2,156	*
1524	Croesus-Spinlin association-----	539	*
1530	Westbutte stony loam, 15 to 50 percent slopes-----	877	*
1540	Locane very cobbly loam, 8 to 30 percent slopes-----	1,085	*
1551	Charwell-Anawalt association-----	5,749	0.1
1560	Menbo-Rock outcrop complex, 50 to 75 percent slopes-----	299	*
1561	Menbo-Madeline-Tusel association-----	1,865	*
1562	Menbo-Devada-Longcreek association-----	4,602	0.1
1570	Delvada silty clay-----	15,908	0.4
1572	Delvada silty clay loam, drained, strongly saline-----	7,410	0.2
1579	Delvada silty clay loam, occasionally flooded-----	963	*
1580	Isolde-Essal association-----	16,200	0.4
1594	Boton complex-----	179,075	4.6
1600	Clurde loam, 0 to 2 percent slopes-----	1,937	*
1610	Gochea-Igdell association-----	3,152	*
1620	Weso very fine sandy loam, 2 to 4 percent slopes-----	1,970	*
1621	Weso-Wholan complex-----	1,934	*
1622	Weso-Davey-Broyles association-----	12,727	0.3
1630	Bliss loam, 0 to 2 percent slopes-----	985	*
1631	Bliss very fine sandy loam, 0 to 2 percent slopes-----	1,801	*
1640	Kleck loam-----	281	*
1650	Water-----	160	*
1651	Miscellaneous Water-----	20	*
	Total-----	3,899,860	100.0

* Less than 0.1 percent.

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE

(Yields are those that can be expected under a high level of irrigated management by component. 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	Alfalfa seed	Pasture	Irish potatoes	Wheat
		Tons	Lbs			
110: Adelaide-----	4e	3.5	350.0	---	---	---
143: Beoska-----	---	---	---	---	---	---
Broyles-----	3s	4.5	350.0	---	---	---
144: Beoska-----	3s	5.2	560.0	---	---	52.0
Dun Glen-----	2c	---	---	---	---	---
145: Beoska-----	3e	---	---	---	---	---
Beoska-----	---	---	---	---	---	---
Weso-----	2e	6.0	650.0	---	400.0	50.0
151: Blackhawk-----	4s	4.0	400.0	---	---	---
152: Blackhawk-----	4e	3.5	375.0	---	---	---
154: Blackhawk-----	4e	3.5	375.0	---	---	---
Golconda-----	---	---	---	---	---	---
Orovada-----	2c	6.5	700.0	---	---	65.0
155: Blackhawk-----	4s	3.5	350.0	---	---	---
156: Blackhawk-----	4s	4.0	400.0	---	---	---
Clurde-----	2c	6.0	---	---	---	---
157: Blackhawk-----	4e	3.5	375.0	---	---	---
Broyles-----	2s	6.2	665.0	---	---	---
160: Bliss-----	3e	4.5	400.0	---	---	55.0
163: Bliss-----	3e	4.5	400.0	---	---	55.0
Shabliss-----	4e	3.5	350.0	---	---	40.0
165: Bliss-----	3e	4.5	400.0	---	---	55.0
Dugchip-----	---	---	---	---	---	---
Orovada-----	---	---	---	---	---	---
166: Bliss-----	3e	4.5	400.0	---	---	55.0

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land Capability	Alfalfa hay	Alfalfa seed	Pasture	Irish potatoes	Wheat
Orovada-----	---	---	---	---	---	---
Shabliss-----	4e	3.5	350.0	---	---	40.0
167: Bliss-----	3s	5.0	450.0	---	---	60.0
Blackhawk-----	4e	3.5	375.0	---	---	---
Adelaide-----	4e	---	---	---	---	---
169: Bliss-----	3e	4.5	400.0	---	---	55.0
Orovada-----	---	---	---	---	---	---
171: Bubus-----	3s	4.2	400.0	9.0	---	50.0
174: Bubus-----	---	---	---	---	---	---
Needle Peak-----	2w	5.5	---	---	---	60.0
184: Chiara-----	---	---	---	---	---	---
McConnel-----	4e	4.8	525.0	11.0	---	48.0
185: Chiara-----	---	---	---	---	---	---
Dacker-----	3e	---	---	---	---	---
McConnel-----	4s	4.5	560.0	---	---	52.0
201: Davey-----	3e	5.0	500.0	---	---	55.0
202: Davey-----	3s	6.2	665.0	---	---	62.0
203: Davey-----	---	---	---	---	---	---
Goldrun-----	4s	3.5	500.0	---	---	---
204: Davey-----	3e	5.0	500.0	---	---	55.0
Blackhawk-----	---	---	---	---	---	---
205: Davey-----	3e	5.0	500.0	---	---	55.0
Hawsley-----	4s	---	---	---	---	---
206: Broyles-----	3s	4.5	350.0	---	---	---
Davey-----	3s	5.8	630.0	---	---	58.0
Dun Glen-----	2c	---	---	---	---	---
207: Davey-----	3s	5.8	630.0	---	---	58.0

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land Capability	Alfalfa hay	Alfalfa seed	Pasture	Irish potatoes	Wheat
Pumper-----	---	---	---	---	---	---
208: Davey-----	3s	6.4	650.0	---	---	65.0
210: Flue-----	6s	4.0	---	---	---	55.0
Connel-----	4s	---	---	---	---	---
211: Flue-----	6s	4.0	---	---	---	55.0
Golconda-----	---	---	---	---	---	---
Snapp-----	---	---	---	---	---	---
212: Flue-----	6s	4.0	---	---	---	55.0
Orovada-----	---	---	---	---	---	---
213: Flue-----	6e	4.0	---	---	---	50.0
Puett-----	---	---	---	---	---	---
216: Flue-----	6s	4.0	---	---	---	55.0
217: Flue-----	6s	4.0	---	---	---	55.0
222: Bloor-----	4s	3.0	---	---	---	---
250: Connel-----	4e	4.0	475.0	---	---	50.0
Davey-----	3e	5.0	500.0	---	---	55.0
Goldrun-----	4s	3.5	500.0	---	---	---
251: Connel-----	4e	4.5	575.0	---	---	60.0
253: Connel-----	4s	4.5	575.0	---	---	---
McConnel-----	4w	4.5	560.0	---	---	60.0
254: Connel-----	4e	4.5	575.0	---	---	60.0
Zevadez-----	---	---	---	---	---	---
255: Connel-----	4s	5.0	625.0	---	---	65.0
McConnel-----	4s	4.5	560.0	---	---	52.0
257: Connel-----	4s	5.0	625.0	---	---	65.0
258: Connel-----	4s	4.5	575.0	---	---	---

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land Capability	Alfalfa hay	Alfalfa seed	Pasture	Irish potatoes	Wheat
				AUM		
440: Prideen-----	6w	---	---	5.0	---	---
441: Prideen-----	6w	---	---	5.0	---	---
452: Kingsriver-----	5w	---	---	6.0	---	---
453: Kingsriver-----	3w	---	---	8.0	---	---
Kingsriver-----	---	---	---	---	---	---
Typic Fluvaquents----	---	---	---	---	---	---
461: Rad-----	2c	5.8	680.0	---	---	---
462: Rad-----	2e	5.3	600.0	---	---	---
470: Raglan-----	2c	6.0	650.0	---	---	55.0
471: Raglan-----	6s	3.5	---	---	---	45.0
474: Raglan-----	6s	3.5	---	---	---	45.0
Kleck-----	4s	4.5	---	---	---	60.0
480: Rebel-----	2c	6.5	---	---	325.0	65.0
487: Rebel-----	2c	---	600.0	---	---	65.0
490: Rose Creek-----	3w	---	---	8.0	---	---
Humboldt-----	---	---	---	---	---	---
491: Rose Creek-----	6s	3.0	---	7.5	---	---
492: Rose Creek-----	3w	---	---	8.0	---	---
Humboldt-----	---	---	---	---	---	---
501: Enko-----	2s	6.0	500.0	---	---	60.0
502: Enko-----	3e	5.0	350.0	---	---	45.0
Goldrun-----	4s	3.5	500.0	---	---	---
504: Enko-----	3e	---	---	---	---	---
Shabliss-----	4e	3.5	350.0	---	---	40.0

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land Capability	Alfalfa hay	Alfalfa seed	Pasture	Irish potatoes	Wheat
		Tons	Lbs	AUM		Bu
530: Shabliss-----	4e	3.5	350.0	---	---	40.0
532: Shabliss-----	4e	3.5	350.0	---	---	40.0
Enko-----	3e	---	---	---	---	---
Valmy-----	3e	---	---	---	---	---
533: Shabliss-----	4e	3.5	350.0	---	---	40.0
Connel-----	4e	4.0	475.0	---	---	50.0
534: Shabliss-----	4e	3.5	350.0	---	---	40.0
Puett-----	---	---	---	---	---	---
536: Shabliss-----	4e	3.5	350.0	---	---	40.0
Enko-----	2e	---	---	---	---	---
Dugchip-----	---	---	---	---	---	---
537: Shabliss-----	4e	3.5	350.0	---	---	40.0
Bliss-----	---	---	---	---	---	---
Genaw-----	---	---	---	---	---	---
543: Pumper-----	---	---	---	---	---	---
Connel-----	4e	4.5	575.0	---	---	60.0
544: Pumper-----	---	---	---	---	---	---
Weso-----	2e	6.0	650.0	---	400.0	50.0
545: Dun Glen-----	2c	---	---	---	---	---
Pumper-----	---	---	---	---	---	---
Davey-----	3s	5.8	630.0	---	---	58.0
561: Sonoma-----	6w	---	---	6.0	---	---
Humboldt-----	---	---	---	---	---	---
563: Sonoma-----	6w	---	---	6.0	---	---
566: Sonoma-----	6w	---	---	6.0	---	---
Paranat-----	6w	---	---	6.5	---	---
600: Valmy-----	2s	6.0	---	---	300.0	55.0

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land Capability	Alfalfa hay	Alfalfa seed	Pasture	Irish potatoes	Wheat
		Tons			Cwt	Bu
603:						
Valmy-----	2s	6.0	---	---	300.0	55.0
Goldrun-----	4s	3.5	500.0	---	---	---
604:						
Valmy-----	2s	6.0	---	---	300.0	55.0
Bubus-----	---	---	---	---	---	---
Needle Peak----	2w	5.5	---	---	---	60.0
606:						
Valmy-----	3s	6.0	---	---	300.0	55.0
613:						
Weso-----	2c	6.0	650.0	---	400.0	50.0
Orovada-----	---	---	---	---	---	---
Shabliss-----	---	---	---	---	---	---
614:						
Weso-----	3s	5.0	400.0	---	---	50.0
615:						
Weso-----	2c	6.0	600.0	---	325.0	65.0
617:						
Weso-----	2e	5.6	575.0	---	300.0	60.0
618:						
Weso-----	2c	6.0	650.0	---	400.0	50.0
Kelk-----	2w	5.8	630.0	---	---	58.0
619:						
Weso-----	2c	6.0	600.0	---	325.0	65.0
Rebel-----	2c	6.5	---	---	325.0	65.0
636:						
Burrita-----	---	---	---	---	---	---
Rubble Land----	---	---	---	---	---	---
Clementine-----	2c	4.0	---	5.0	---	---
640:						
Clementine-----	2c	5.6	---	7.0	---	---
641:						
Clementine-----	2c	5.6	---	7.0	---	---
Paranat-----	3w	---	---	6.0	---	---
642:						
Clementine-----	3w	---	---	---	---	---
Rose Creek-----	2w	5.0	---	6.0	360.0	---
646:						
Clementine-----	3w	---	---	---	---	---
Paranat-----	3w	---	---	6.0	---	---

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land Capability	Alfalfa hay	Alfalfa seed	Pasture	Irish potatoes	Wheat
660:						
Beoska-----	3e	---	---	---	---	---
Oxcorel-----	4e	---	---	---	---	---
Whirlo-----	3e	5.5	500.0	---	---	45.0
661:						
Oxcorel-----	4e	---	---	---	---	---
Orovada-----	3e	6.5	700.0	---	---	65.0
663:						
Oxcorel-----	4e	---	---	---	---	---
Weso-----	3e	---	---	---	---	---
Beoska-----	3e	4.8	525.0	---	---	48.0
710:						
Xipe-----	3w	---	---	5.0	---	---
Clementine-----	---	---	---	---	---	---
732:						
Kelk-----	2s	5.5	595.0	---	---	55.0
Kelk-----	2w	5.8	630.0	---	---	58.0
733:						
Kelk-----	2w	5.8	630.0	---	---	58.0
Enko-----	2s	6.0	500.0	---	---	60.0
734:						
Kelk-----	2w	5.8	630.0	---	---	58.0
753:						
Snapp-----	---	---	---	---	---	---
Dugchip-----	---	---	---	---	---	---
Connel-----	4s	5.0	625.0	---	---	65.0
755:						
Snapp-----	---	---	---	---	---	---
Connel-----	4e	4.0	475.0	---	---	50.0
756:						
Snapp-----	---	---	---	---	---	---
Adelaide-----	4e	3.5	350.0	---	---	---
McConnel-----	4e	4.8	525.0	---	---	48.0
772:						
Broyles-----	3e	5.5	595.0	---	---	---
Orovada-----	---	---	---	---	---	---
773:						
Broyles-----	3s	4.5	350.0	---	---	---
774:						
Broyles-----	2s	6.2	665.0	---	---	---

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land Capability	Alfalfa hay	Alfalfa seed	Pasture	Irish potatoes	Wheat
		Tons				Bu
833:						
Boton-----	4s	4.0	---	---	---	55.0
Isolde-----	4s	---	---	---	---	---
Boton-----	---	---	---	---	---	---
834:						
Boton-----	---	---	---	---	---	---
Davey-----	3s	5.8	630.0	---	---	58.0
840:						
Dugchip-----	---	---	---	---	---	---
Flue-----	6e	4.0	---	---	---	50.0
Dewar-----	---	---	---	---	---	---
842:						
Dugchip-----	---	---	---	---	---	---
Kelk-----	2w	5.8	630.0	---	---	58.0
845:						
Dugchip-----	6s	4.0	---	---	---	50.0
Needle Peak----	2w	5.5	---	---	---	60.0
963:						
Zevadex-----	---	---	---	---	---	---
McConnel-----	4e	4.8	525.0	---	---	48.0
964:						
Zevadex-----	2e	5.4	500.0	---	---	62.0
995:						
Dune Land-----	---	---	---	---	---	---
Goldrun-----	4s	3.5	500.0	---	---	---
Davey-----	---	---	---	---	---	---
1005:						
Flue-----	6e	4.0	---	---	---	50.0
Soughe-----	---	---	---	---	---	---
Soughe-----	---	---	---	---	---	---
1020:						
Wholan-----	2c	6.2	700.0	---	---	50.0
1023:						
Wholan-----	2e	---	---	---	---	---
Bliss-----	3e	4.5	400.0	---	---	55.0
Enko-----	2e	---	---	---	---	---
1025:						
Wholan-----	2c	6.2	600.0	---	---	60.0
1050:						
Argenta-----	6w	---	---	5.0	---	---

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land Capability	Alfalfa hay	Alfalfa seed	Pasture	Irish potatoes	Wheat
		Tons	Lbs			
1211: Cresal-----	3s	4.5	350.0	---	---	---
1212: Cresal-----	---	---	---	---	---	---
Tresed-----	4s	2.5	---	---	---	---
Playas-----	---	---	---	---	---	---
1230: Knott-----	---	---	---	---	---	---
Sodhouse-----	---	---	---	---	---	---
Wholan-----	2c	6.2	700.0	---	---	50.0
1260: Weso-----	2c	6.0	650.0	---	400.0	50.0
Trocken-----	---	---	---	---	---	---
1291: Tresed-----	4s	2.5	---	---	---	---
Isolde-----	4s	---	---	---	---	---
1292: Tresed-----	4s	2.5	---	---	---	---
1310: Dewar-----	---	---	---	---	---	---
Tenabo-----	4e	3.0	---	---	---	---
1432: Rodock-----	3s	5.0	500.0	---	---	65.0
Connel-----	4s	5.0	625.0	---	---	65.0
1433: Rodock-----	3s	5.0	450.0	---	---	60.0
1436: Rodock-----	3s	5.0	500.0	---	---	65.0
1437: Rodock-----	3s	5.0	400.0	---	---	55.0
1570: Delvada-----	5w	---	---	6.0	---	---
1572: Delvada-----	6s	---	---	4.0	---	---
1579: Delvada-----	5w	---	---	6.0	---	---
1580: Isolde-----	---	---	---	---	---	---
Essal-----	2c	4.0	500.0	---	360.0	60.0
Essal-----	---	---	---	---	---	---
1594: Boton-----	4s	4.0	---	---	---	55.0

TABLE 5.--LAND CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land Capability	Alfalfa hay	Alfalfa seed	Pasture	Irish potatoes	Wheat
Boton-----	---	---	---	---	---	---
1600: Clurde-----	2c	6.0	---	---	---	---
1620: Weso-----	2e	5.6	575.0	---	300.0	60.0
1621: Weso-----	2c	6.0	650.0	---	400.0	50.0
Wholan-----	2c	6.2	700.0	---	---	50.0
1622: Weso-----	3e	---	---	---	---	---
Davey-----	3e	5.0	500.0	---	---	55.0
Broyles-----	2e	5.8	630.0	---	---	---
1630: Bliss-----	3s	5.5	450.0	---	---	---
1631: Bliss-----	3s	5.0	450.0	---	---	60.0
1640: Kleck-----	4s	4.5	---	---	---	60.0

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING

Soil name and map symbol	Limitation rating	Restrictive features
100: Alyan-----	Well suited-----	
Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
101: Alyan-----	Poorly suited-----	Small stones.
Anawalt-----	Poorly suited-----	Droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
102: Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Tusk-----	Well suited-----	
106: Alyan-----	Well suited-----	
Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
107: Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Tusk-----	Well suited-----	
108: Alyan-----	Well suited-----	
Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
110: Adelaide-----	Poorly suited-----	Droughty, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
120: Bregar-----	Poorly suited-----	Droughty, small stones, depth to rock.
Bregar-----	Poorly suited-----	Too arid, droughty, small stones.
Tusk-----	Well suited-----	
122: Bregar-----	Poorly suited-----	Droughty, small stones, depth to rock.
Cleavage-----	Poorly suited-----	Droughty, small stones.
Tusel-----	Suited-----	Droughty.
131: Benin-----	Poorly suited-----	Too arid, rooting depth, excess salt.
133: Benin-----	Poorly suited-----	Too arid, rooting depth, excess salt.
141: Beoska-----	Poorly suited-----	Too arid, rooting depth, excess salt.
Bluewing-----	Poorly suited-----	Too arid, droughty, too sandy.
143: Beoska-----	Poorly suited-----	Too arid, rooting depth, excess salt.
Broyles-----	Poorly suited-----	Too arid, excess salt, excess sodium.
144: Beoska-----	Poorly suited-----	Too arid, rooting depth, excess salt.
Dun glen-----	Poorly suited-----	Too arid.
145: Beoska-----	Poorly suited-----	Too arid, rooting depth, excess salt.
Beoska-----	Poorly suited-----	Too arid, rooting depth, excess salt.
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.
151: Blackhawk-----	Poorly suited-----	Too arid.
152: Blackhawk-----	Poorly suited-----	Too arid.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
154: Blackhawk-----	Poorly suited-----	Too arid.
Golconda-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
155: Blackhawk-----	Poorly suited-----	Too arid.
156: Blackhawk-----	Poorly suited-----	Too arid.
Clurde-----	Suited-----	Too arid, excess sodium.
157: Blackhawk-----	Poorly suited-----	Too arid.
Broyles-----	Poorly suited-----	Too arid, excess salt, excess sodium.
158: Blackhawk-----	Poorly suited-----	Too arid.
Trocken-----	Poorly suited-----	Too arid, droughty, small stones.
160: Bliss-----	Suited-----	Too arid.
161: Bliss-----	Suited-----	Too arid, erodes easily.
Chiara-----	Poorly suited-----	Droughty, excess sodium.
163: Bliss-----	Suited-----	Too arid.
Shabliss-----	Poorly suited-----	Excess sodium.
165: Bliss-----	Suited-----	Too arid.
Dugchip-----	Poorly suited-----	Excess salt, excess sodium.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
166:		
Bliss-----	Suited-----	Too arid.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
Shabliss-----	Poorly suited-----	Excess sodium.
167:		
Adelaide-----	Poorly suited-----	Droughty, excess salt, excess sodium.
Blackhawk-----	Poorly suited-----	Too arid.
Bliss-----	Suited-----	Too arid.
169:		
Bliss-----	Suited-----	Too arid.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
171:		
Bubus-----	Poorly suited-----	Too arid, excess salt, excess sodium.
174:		
Bubus-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Needle peak-----	Poorly suited-----	Excess salt, excess sodium.
178:		
Bubus-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Preble-----	Poorly suited-----	Too arid, excess salt, excess sodium.
184:		
Chiara-----	Poorly suited-----	Droughty, excess sodium.
McConnel-----	Poorly suited-----	Excess salt.
185:		
Chiara-----	Poorly suited-----	Droughty, excess sodium.
Dacker-----	Poorly suited-----	Rooting depth.
McConnel-----	Suited-----	Too arid, droughty.
186:		
Chiara-----	Poorly suited-----	Droughty, excess sodium.
Hunnton-----	Suited-----	Too arid, droughty.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
187: Boger-----	Poorly suited-----	Droughty.
Chiara-----	Poorly suited-----	Droughty, excess sodium.
Chiara-----	Poorly suited-----	Droughty, excess sodium.
188: Chiara-----	Poorly suited-----	Droughty, excess sodium.
Chiara-----	Poorly suited-----	Droughty, excess sodium.
190: Beeox-----	Poorly suited-----	Too arid, excess sodium.
Oxcorel-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
191: Beeox-----	Poorly suited-----	Too arid, excess sodium.
Connel-----	Suited-----	Too arid, excess sodium.
192: Beeox-----	Poorly suited-----	Too arid, excess sodium.
Bliss-----	Suited-----	Too arid.
200: Davey-----	Poorly suited-----	Excess salt.
201: Davey-----	Suited-----	Too arid, too sandy.
202: Davey-----	Suited-----	Too arid, too sandy.
203: Davey-----	Suited-----	Too arid, droughty, too sandy.
Goldrun-----	Poorly suited-----	Too sandy.
204: Blackhawk-----	Poorly suited-----	Too arid.
Davey-----	Suited-----	Too arid, too sandy.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
205: Davey-----	Suited-----	Too arid, too sandy.
Hawsley-----	Poorly suited-----	Too arid, droughty, too sandy.
206: Broyles-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Davey-----	Suited-----	Too arid, too sandy.
Dun glen-----	Poorly suited-----	Too arid.
207: Davey-----	Suited-----	Too arid, too sandy.
Pumper-----	Poorly suited-----	Too arid, excess salt, excess sodium.
208: Davey-----	Suited-----	Too arid, excess salt.
210: Connel-----	Suited-----	Too arid, excess sodium.
Flue-----	Poorly suited-----	Excess sodium.
211: Flue-----	Poorly suited-----	Excess sodium.
Golconda-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
212: Flue-----	Poorly suited-----	Excess sodium.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
213: Flue-----	Poorly suited-----	Excess sodium.
Puett-----	Poorly suited-----	Too arid, droughty.
215: Flue-----	Poorly suited-----	Excess sodium.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
216: Flue-----	Poorly suited-----	Excess sodium.
217: Flue-----	Poorly suited-----	Excess sodium.
218: Flue-----	Poorly suited-----	Excess sodium.
Rodock-----	Suited-----	Too arid, excess salt.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
222: Bloor-----	Poorly suited-----	Excess salt, excess sodium.
231: Dun glen-----	Poorly suited-----	Too arid.
233: Dun glen-----	Poorly suited-----	Too arid.
241: Sojur-----	Poorly suited-----	Too arid, droughty, small stones.
250: Connel-----	Suited-----	Too arid, excess sodium.
Davey-----	Suited-----	Too arid, too sandy.
Goldrum-----	Poorly suited-----	Too sandy.
251: Connel-----	Suited-----	Too arid, excess sodium.
252: Connel-----	Suited-----	Too arid, excess sodium.
253: Connel-----	Poorly suited-----	Excess salt.
McConnel-----	Suited-----	Too arid.
254: Connel-----	Suited-----	Too arid, excess sodium.
Zevadez-----	Suited-----	Too arid, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
255: Connel-----	Suited-----	Too arid, excess sodium.
McConnel-----	Suited-----	Too arid, droughty.
257: Connel-----	Suited-----	Too arid, excess sodium.
258: Connel-----	Poorly suited-----	Excess salt.
262: Golconda-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
263: Bliss-----	Suited-----	Too arid.
Connel-----	Suited-----	Too arid, excess sodium.
Golconda-----	Poorly suited-----	Too arid, excess salt, excess sodium.
270: Goldrun-----	Poorly suited-----	Too sandy, soil blowing.
271: Goldrun-----	Suited-----	Too arid, droughty, too sandy.
272: Goldrun-----	Suited-----	Too arid, droughty, too sandy.
274: Benin-----	Poorly suited-----	Too arid, rooting depth, excess salt.
Goldrun-----	Poorly suited-----	Too sandy, soil blowing.
275: Goldrun-----	Poorly suited-----	Too sandy, soil blowing.
Preble-----	Poorly suited-----	Too arid, excess salt, excess sodium.
281: Golsum-----	Poorly suited-----	Rooting depth, erodes easily.
Harcany-----	Well suited-----	
Spinlin-----	Poorly suited-----	Rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
290: Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Havingdon-----	Poorly suited-----	Droughty, small stones, rooting depth.
292: Gowjai-----	Suited-----	Too arid.
Havingdon-----	Poorly suited-----	Droughty, small stones, rooting depth.
Walti-----	Poorly suited-----	Rooting depth.
302: Essal-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Isolde-----	Poorly suited-----	Too arid.
Playas-----	Poorly suited-----	Too arid, droughty, excess salt.
305: Essal-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Hawsley-----	Poorly suited-----	Too arid, droughty, too sandy.
Isolde-----	Poorly suited-----	Too arid.
307: Essal-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Isolde-----	Poorly suited-----	Too arid.
Tresed-----	Poorly suited-----	Too arid, excess salt, excess sodium.
311: Croesus-----	Poorly suited-----	Droughty, small stones.
Hackwood-----	Well suited-----	
Harcany-----	Poorly suited-----	Small stones.
312: Cleavage-----	Poorly suited-----	Droughty, small stones.
Hackwood-----	Well suited-----	
Harcany-----	Poorly suited-----	Erodes easily.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
321: Humboldt-----	Suited-----	Excess salt, excess sodium.
322: Humboldt-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
325: Humboldt-----	Suited-----	Excess salt, excess sodium.
Wendane-----	Poorly suited-----	Too arid, excess salt, excess sodium.
330: McConnel-----	Poorly suited-----	Excess salt.
331: McConnel-----	Poorly suited-----	Excess salt.
333: McConnel-----	Suited-----	Too arid, droughty, too sandy.
Shabliss-----	Poorly suited-----	Excess sodium.
335: McConnel-----	Suited-----	Too arid, droughty.
338: McConnel-----	Poorly suited-----	Excess salt.
Pumper-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Whirlo-----	Poorly suited-----	Too arid, excess sodium.
340: Boger-----	Poorly suited-----	Droughty.
Soughe-----	Poorly suited-----	Droughty, small stones.
342: Boger-----	Poorly suited-----	Droughty.
Goosel-----	Suited-----	Too arid, droughty, excess salt.
Soughe-----	Poorly suited-----	Droughty, small stones.
343: Boger-----	Poorly suited-----	Droughty.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
351: Goldrun-----	Poorly suited-----	Too arid, droughty, too sandy.
Playas-----	Poorly suited-----	Too arid, droughty, excess salt.
Prideen-----	Poorly suited-----	Too arid, rooting depth, excess salt.
352: Davey-----	Suited-----	Too arid, too sandy.
Goldrun-----	Poorly suited-----	Too sandy, soil blowing.
Kleck-----	Poorly suited-----	Rooting depth.
360: Needle peak-----	Poorly suited-----	Excess salt, excess sodium.
363: Batan-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
Goldrun-----	Poorly suited-----	Too sandy.
Needle peak-----	Poorly suited-----	Excess salt, excess sodium.
370: Wieland-----	Poorly suited-----	Rooting depth.
Wieland-----	Poorly suited-----	Small stones, rooting depth.
380: Bullump-----	Poorly suited-----	Erodes easily.
Tusel-----	Suited-----	Droughty.
381: Bullump-----	Suited-----	Erodes easily.
Hackwood-----	Well suited-----	
Tusel-----	Suited-----	Droughty.
391: Aycab-----	Poorly suited-----	Droughty.
Rock outcrop-----	Not rated-----	
403: Orovada-----	Suited-----	Too arid, excess salt.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
406: Orovada-----	Suited-----	Too arid, excess salt.
407: Orovada-----	Suited-----	Too arid, excess salt.
409: Goldrun-----	Suited-----	Too arid, droughty, too sandy.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
410: Bliss-----	Suited-----	Too arid, too sandy.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
411: Dugchip-----	Poorly suited-----	Excess salt, excess sodium.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
417: Connel-----	Suited-----	Too arid, excess sodium.
Orovada-----	Suited-----	Too arid, excess salt.
420: Bubus-----	Poorly suited-----	Too arid, excess salt, excess sodium.
431: Preble-----	Poorly suited-----	Too arid, excess salt, excess sodium.
432: Goldrun-----	Poorly suited-----	Too arid, droughty, too sandy.
Playas-----	Poorly suited-----	Too arid, droughty, excess salt.
Preble-----	Poorly suited-----	Too arid, excess salt, excess sodium.
435: Preble-----	Poorly suited-----	Too arid, excess salt, excess sodium.
436: Preble-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Valmy-----	Poorly suited-----	Excess salt, excess sodium.
Valmy-----	Poorly suited-----	Excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
437: Davey-----	Poorly suited-----	Excess salt.
Preble-----	Poorly suited-----	Too arid, excess salt, excess sodium.
438: Bubus-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Preble-----	Poorly suited-----	Too arid, excess salt, excess sodium.
440: Prideen-----	Poorly suited-----	Too arid, excess salt, excess sodium.
441: Prideen-----	Poorly suited-----	Too arid, excess salt, excess sodium.
452: Kingsriver-----	Suited-----	Excess salt.
453: Kingsriver-----	Suited-----	Too arid, excess salt.
460: Rad-----	Suited-----	Too arid, too sandy, excess salt.
461: Rad-----	Suited-----	Too arid, excess salt, excess sodium.
462: Rad-----	Suited-----	Too arid, excess salt, excess sodium.
470: Raglan-----	Poorly suited-----	Too arid, excess salt, excess sodium.
471: Raglan-----	Poorly suited-----	Too arid, excess salt, excess sodium.
474: Kleck-----	Suited-----	Too arid, droughty, depth to rock.
Raglan-----	Poorly suited-----	Too arid, excess salt, excess sodium.
480: Rebel-----	Suited-----	Too arid, excess salt, excess sodium.
487: Rebel-----	Suited-----	Too arid, excess salt.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
490: Rose creek-----	Suited-----	Excess salt, excess sodium.
491: Rose creek-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
492: Rose creek-----	Suited-----	Too clayey, excess salt, excess sodium.
501: Enko-----	Suited-----	Too arid, too sandy, excess sodium.
502: Enko-----	Suited-----	Too arid, too sandy, excess sodium.
Goldrun-----	Poorly suited-----	Too sandy.
503: Enko-----	Suited-----	Too arid, excess salt.
504: Enko-----	Suited-----	Too arid, excess salt.
Shabliss-----	Poorly suited-----	Excess sodium.
505: Enko-----	Suited-----	Too arid.
507: Enko-----	Suited-----	Too arid, excess salt, excess sodium.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
Shabliss-----	Poorly suited-----	Excess sodium.
511: Mazuma-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Trocken-----	Poorly suited-----	Too arid, excess sodium.
520: Devada-----	Poorly suited-----	Droughty, rooting depth.
Lunder-----	Poorly suited-----	Rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
522: Hunnton-----	Suited-----	Too arid, droughty, excess salt.
Lunder-----	Poorly suited-----	Droughty, small stones, rooting depth.
530: Shabliss-----	Poorly suited-----	Excess sodium.
532: Enko-----	Suited-----	Too arid, excess salt.
Shabliss-----	Poorly suited-----	Excess sodium.
Valmy-----	Poorly suited-----	Excess salt, excess sodium.
533: Connel-----	Suited-----	Too arid, excess sodium.
Shabliss-----	Poorly suited-----	Excess sodium.
534: Puett-----	Poorly suited-----	Too arid, droughty.
Shabliss-----	Poorly suited-----	Excess sodium.
536: Dugchipp-----	Poorly suited-----	Excess salt, excess sodium.
Enko-----	Suited-----	Too arid, excess salt.
Shabliss-----	Poorly suited-----	Excess sodium.
537: Bliss-----	Suited-----	Too arid.
Genaw-----	Poorly suited-----	Droughty.
Shabliss-----	Poorly suited-----	Excess sodium.
543: Connel-----	Suited-----	Too arid, excess sodium.
Pumper-----	Poorly suited-----	Too arid, excess salt, excess sodium.
544: Pumper-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
545: Davey-----	Suited-----	Too arid, too sandy.
Dun glen-----	Poorly suited-----	Too arid.
Pumper-----	Poorly suited-----	Too arid, excess salt, excess sodium.
551: Carstump-----	Poorly suited-----	Rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
552: Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
553: Ninemile-----	Poorly suited-----	Droughty, rooting depth, erodes easily.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Tusk-----	Well suited-----	
555: Alyan-----	Poorly suited-----	Small stones.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Tusel-----	Suited-----	Droughty.
557: Ninemile-----	Poorly suited-----	Droughty, rooting depth.
558: Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
559: Devada-----	Poorly suited-----	Droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Rock outcrop-----	Not rated-----	
561: Sonoma-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
562: Sonoma-----	Poorly suited-----	Excess salt.
563: Sonoma-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
564: Sonoma-----	Poorly suited-----	Excess salt.
566: Paranat-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
Sonoma-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
567: Sonoma-----	Poorly suited-----	Too arid, excess salt.
573: Hackwood-----	Well suited-----	
Harcany-----	Poorly suited-----	Small stones.
Spinlin-----	Poorly suited-----	Small stones, rooting depth.
574: Hackwood-----	Well suited-----	
Spinlin-----	Poorly suited-----	Small stones, rooting depth.
Tusel-----	Suited-----	Droughty.
580: Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Softscrabble-----	Poorly suited-----	Rooting depth.
Sumine-----	Suited-----	Too arid, droughty, erodes easily.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
581:		
Gosumi-----	Poorly suited-----	Rooting depth.
Nomara-----	Suited-----	Too arid.
Sumine-----	Poorly suited-----	Small stones.
582:		
Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Sumine-----	Poorly suited-----	Small stones.
583:		
Gosumi-----	Poorly suited-----	Small stones, rooting depth.
Harcany-----	Well suited-----	
Sumine-----	Poorly suited-----	Small stones.
584:		
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Sumine-----	Suited-----	Too arid, droughty, erodes easily.
Tusel-----	Suited-----	Droughty.
585:		
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Rock outcrop-----	Not rated-----	
Sumine-----	Poorly suited-----	Small stones, erodes easily.
586:		
Reluctan-----	Suited-----	Too arid, droughty, large stones.
Rubble land-----	Poorly suited-----	Too arid, droughty, large stones.
Sumine-----	Poorly suited-----	Small stones, erodes easily.
587:		
Gosumi-----	Poorly suited-----	Small stones, rooting depth.
Harcany-----	Well suited-----	
Sumine-----	Poorly suited-----	Small stones.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
588: Cleavage-----	Poorly suited-----	Droughty, small stones.
Rubble land-----	Poorly suited-----	Too arid, droughty, large stones.
Sumine-----	Poorly suited-----	Erodes easily.
589: Harcany-----	Well suited-----	
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Sumine-----	Poorly suited-----	Small stones.
590: Madeline-----	Poorly suited-----	Droughty.
Trunk-----	Poorly suited-----	Rooting depth.
592: Pocan-----	Suited-----	Too arid.
Trunk-----	Poorly suited-----	Rooting depth, erodes easily.
593: Panlee-----	Suited-----	Too arid.
Trunk-----	Poorly suited-----	Rooting depth.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
594: Burrita-----	Poorly suited-----	Droughty, rooting depth.
Quomus-----	Suited-----	Too arid.
Trunk-----	Poorly suited-----	Rooting depth, erodes easily.
596: Burrita-----	Poorly suited-----	Droughty, rooting depth.
Trunk-----	Poorly suited-----	Small stones, rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
597:		
Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Burrita-----	Poorly suited-----	Droughty, rooting depth.
Trunk-----	Poorly suited-----	Rooting depth.
600:		
Valmy-----	Poorly suited-----	Excess salt, excess sodium.
603:		
Goldrun-----	Poorly suited-----	Too sandy.
Valmy-----	Poorly suited-----	Excess salt, excess sodium.
604:		
Bubus-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Needle peak-----	Poorly suited-----	Excess salt, excess sodium.
Valmy-----	Poorly suited-----	Excess salt, excess sodium.
606:		
Valmy-----	Poorly suited-----	Excess salt, excess sodium.
611:		
Weso-----	Poorly suited-----	Too arid, too sandy, excess salt.
613:		
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
Shabliss-----	Poorly suited-----	Excess sodium.
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.
614:		
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.
615:		
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.
617:		
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.
618:		
Kelk-----	Suited-----	Too arid, excess salt.
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
619: Rebel-----	Suited-----	Too arid, excess salt, excess sodium.
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.
620: Carstump-----	Poorly suited-----	Rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Soughe-----	Poorly suited-----	Droughty.
631: Burrita-----	Poorly suited-----	Droughty, rooting depth, erodes easily.
Panlee-----	Suited-----	Too arid.
633: Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Midraw-----	Poorly suited-----	Droughty, rooting depth.
634: Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Zymans-----	Poorly suited-----	Rooting depth.
636: Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Clementine-----	Suited-----	Too arid, excess sodium.
Rubble land-----	Poorly suited-----	Too arid, droughty, large stones.
637: Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Burrita-----	Poorly suited-----	Droughty, rooting depth.
Dewar-----	Poorly suited-----	Droughty, rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
638: Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Panlee-----	Suited-----	Too arid.
Soughe-----	Poorly suited-----	Droughty, small stones.
640: Clementine-----	Suited-----	Too arid, excess sodium.
641: Clementine-----	Suited-----	Too arid, excess sodium.
Paranat-----	Suited-----	Excess salt, excess sodium.
642: Clementine-----	Poorly suited-----	Excess salt.
Rose creek-----	Poorly suited-----	Excess salt.
646: Clementine-----	Poorly suited-----	Excess salt.
Paranat-----	Suited-----	Excess salt, excess sodium.
651: Atlow-----	Poorly suited-----	Too arid, droughty, small stones.
Burrita-----	Poorly suited-----	Droughty, rooting depth, erodes easily.
Soughe-----	Poorly suited-----	Droughty, small stones.
652: Burrita-----	Poorly suited-----	Droughty, rooting depth, erodes easily.
Havingdon-----	Poorly suited-----	Droughty, rooting depth.
Reluctan-----	Suited-----	Too arid.
653: Burrita-----	Poorly suited-----	Droughty, rooting depth, erodes easily.
Havingdon-----	Poorly suited-----	Droughty, small stones, rooting depth.
Vanwyper-----	Poorly suited-----	Rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
654:		
Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Panlee-----	Poorly suited-----	Small stones.
Rock outcrop-----	Not rated-----	
655:		
Hoot-----	Poorly suited-----	Too arid, droughty, small stones.
Soughe-----	Poorly suited-----	Droughty, small stones, rooting depth.
657:		
Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Rock outcrop-----	Not rated-----	
Snowmore-----	Suited-----	Too arid, droughty, excess sodium.
658:		
Burrita-----	Poorly suited-----	Droughty, rooting depth, erodes easily.
Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Panlee-----	Suited-----	Too arid.
660:		
Beoska-----	Poorly suited-----	Too arid, rooting depth, excess salt.
Oxcorel-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
Whirlo-----	Poorly suited-----	Too arid, excess sodium.
661:		
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
Oxcorel-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
663:		
Beoska-----	Poorly suited-----	Too arid, rooting depth, excess salt.
Oxcorel-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
664: Golconda-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Oxcorel-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
665: Oxcorel-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
669: Dewar-----	Poorly suited-----	Droughty.
Oxcorel-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
Soughe-----	Poorly suited-----	Droughty.
670: Devada-----	Poorly suited-----	Droughty, rooting depth.
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Goosel-----	Suited-----	Too arid, droughty, excess salt.
671: Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Devada-----	Poorly suited-----	Droughty, rooting depth.
Rock outcrop-----	Not rated-----	
673: Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
676: Devada-----	Poorly suited-----	Droughty, rooting depth.
Midraw-----	Poorly suited-----	Droughty, rooting depth.
Snowmore-----	Suited-----	Too arid, droughty, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
677: Burríta-----	Poorly suited-----	Droughty, rooting depth.
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
678: Devada-----	Poorly suited-----	Droughty, rooting depth.
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Rubble land-----	Poorly suited-----	Too arid, droughty, large stones.
680: Rock outcrop-----	Not rated-----	
Soughe-----	Poorly suited-----	Droughty, small stones.
Trunk-----	Poorly suited-----	Small stones, rooting depth.
690: Golconda-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Sodhouse-----	Poorly suited-----	Too arid, droughty, excess sodium.
691: Chiara-----	Poorly suited-----	Excess sodium.
Sodhouse-----	Poorly suited-----	Excess sodium.
700: Atlow-----	Poorly suited-----	Too arid, droughty, small stones.
Gowjai-----	Suited-----	Too arid.
701: Atlow-----	Poorly suited-----	Too arid, droughty, small stones.
Wiskan-----	Poorly suited-----	Droughty, small stones.
704: Atlow-----	Poorly suited-----	Too arid, droughty, small stones.
Atlow-----	Poorly suited-----	Too arid, droughty, small stones.
Hoot-----	Poorly suited-----	Too arid, droughty, small stones.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
710: Xipe-----	Suited-----	Too arid, excess salt, excess sodium.
720: Dewar-----	Poorly suited-----	Droughty, small stones.
Sodhouse-----	Poorly suited-----	Excess sodium.
721: Dewar-----	Poorly suited-----	Droughty.
Laped-----	Poorly suited-----	Too arid, droughty, small stones.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
722: Burrita-----	Poorly suited-----	Droughty, rooting depth.
Dewar-----	Poorly suited-----	Droughty, rooting depth.
Flue-----	Poorly suited-----	Small stones, excess sodium.
724: Dewar-----	Poorly suited-----	Droughty, rooting depth.
Hoot-----	Poorly suited-----	Too arid, droughty, small stones.
Soughe-----	Poorly suited-----	Droughty, small stones.
726: Dewar-----	Poorly suited-----	Droughty, rooting depth.
Dewar-----	Poorly suited-----	Droughty, rooting depth.
727: Dewar-----	Poorly suited-----	Droughty, rooting depth.
Dewar-----	Poorly suited-----	Droughty, rooting depth.
Midraw-----	Poorly suited-----	Droughty, rooting depth.
728: Devada-----	Poorly suited-----	Droughty, rooting depth.
Dewar-----	Poorly suited-----	Droughty, rooting depth.
Midraw-----	Poorly suited-----	Droughty, rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
729: Boger-----	Poorly suited-----	Droughty.
Dewar-----	Poorly suited-----	Droughty, rooting depth.
732: Kelk-----	Poorly suited-----	Excess salt, excess sodium.
Kelk-----	Suited-----	Too arid, excess salt.
733: Enko-----	Suited-----	Too arid, too sandy, excess sodium.
Kelk-----	Suited-----	Too arid, excess salt.
734: Kelk-----	Suited-----	Too arid, excess salt.
736: Kelk-----	Suited-----	Too arid, excess salt.
Kortty-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
740: Gowjai-----	Poorly suited-----	Erodes easily.
Sumine-----	Poorly suited-----	Small stones.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
750: Oxcotel-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
751: Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
Sodhouse-----	Poorly suited-----	Too arid, excess sodium.
752: Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
753: Connel-----	Suited-----	Too arid, excess sodium.
Dugchip-----	Poorly suited-----	Excess salt, excess sodium.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
754: Puett-----	Poorly suited-----	Too arid, droughty.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
755: Connel-----	Suited-----	Too arid, excess sodium.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
756: Adelaide-----	Poorly suited-----	Droughty, excess salt, excess sodium.
McConnel-----	Poorly suited-----	Excess salt.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
760: Piline-----	Suited-----	Too arid, too clayey.
Piline-----	Suited-----	Too arid, too clayey.
761: Piline-----	Suited-----	Too arid, too clayey.
772: Broyles-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
773: Broyles-----	Poorly suited-----	Too arid, excess salt, excess sodium.
774: Broyles-----	Poorly suited-----	Too arid, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
775: Broyles-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Bubus-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Goldrun-----	Poorly suited-----	Too arid, droughty, too sandy.
780: Chiara-----	Poorly suited-----	Droughty, excess sodium.
Dacker-----	Poorly suited-----	Rooting depth.
781: Bilbo-----	Suited-----	Too arid, droughty.
Dacker-----	Suited-----	Too arid, droughty, excess salt.
782: Dacker-----	Poorly suited-----	Rooting depth.
Devada-----	Poorly suited-----	Droughty, rooting depth.
Snowmore-----	Suited-----	Too arid, droughty, excess sodium.
790: Rio king-----	Suited-----	Too arid.
791: Rio king-----	Poorly suited-----	Excess salt.
800: Bregar-----	Poorly suited-----	Too arid, droughty, small stones.
Rock outcrop-----	Not rated-----	
Udelope-----	Poorly suited-----	Droughty.
801: Hackwood-----	Well suited-----	
Tusel-----	Suited-----	Droughty.
Udelope-----	Poorly suited-----	Droughty.
810: Batan-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Goldrun-----	Suited-----	Too arid, droughty, too sandy.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
811: Batan-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Batan-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
813: Batan-----	Poorly suited-----	Too arid, excess salt, excess sodium.
815: Batan-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Prideen-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Wendane-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
818: Batan-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
Bubus-----	Poorly suited-----	Excess salt, excess sodium.
Goldrun-----	Poorly suited-----	Too sandy.
823: Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
Snapp-----	Poorly suited-----	Rooting depth, excess salt, excess sodium.
Whirlo-----	Poorly suited-----	Too arid, excess sodium.
825: Oxcorel-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Whirlo-----	Poorly suited-----	Too arid, excess sodium.
831: Boton-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Playas-----	Poorly suited-----	Too arid, droughty, excess salt.
833: Boton-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Boton-----	Poorly suited-----	Excess salt, excess sodium.
Isolde-----	Poorly suited-----	Too arid, excess salt.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
834: Boton-----	Poorly suited-----	Excess sodium.
Davey-----	Suited-----	Too arid, too sandy.
840: Dewar-----	Poorly suited-----	Droughty, rooting depth.
Dugchip-----	Poorly suited-----	Excess salt, excess sodium.
Flue-----	Poorly suited-----	Excess sodium.
842: Dugchip-----	Poorly suited-----	Excess salt, excess sodium.
Kelk-----	Suited-----	Too arid, excess salt.
844: Chiara-----	Poorly suited-----	Droughty, excess sodium.
Dugchip-----	Poorly suited-----	Excess salt, excess sodium.
845: Dugchip-----	Poorly suited-----	Excess salt, excess sodium.
Needle peak-----	Poorly suited-----	Excess salt, excess sodium.
860: Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Goosel-----	Suited-----	Too arid, droughty, excess salt.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
861: Goosel-----	Suited-----	Too arid, droughty, excess salt.
862: Devada-----	Poorly suited-----	Droughty, rooting depth.
Goosel-----	Suited-----	Too arid, droughty, excess salt.
Goosel-----	Suited-----	Too arid, droughty, excess salt.
863: Goosel-----	Suited-----	Too arid, droughty, excess salt.
Midraw-----	Poorly suited-----	Droughty, rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
880: Cleavage-----	Poorly suited-----	Droughty, small stones.
Harcany-----	Poorly suited-----	Small stones.
Sumine-----	Suited-----	Too arid, droughty.
881: Bregar-----	Poorly suited-----	Droughty, small stones, depth to rock.
Burrita-----	Poorly suited-----	Droughty, rooting depth.
Cleavage-----	Poorly suited-----	Droughty, small stones.
882: Cleavage-----	Poorly suited-----	Droughty, small stones.
Rock outcrop-----	Not rated-----	
883: Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Cleavage-----	Poorly suited-----	Droughty, small stones.
Tusel-----	Well suited-----	
884: Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Cleavage-----	Poorly suited-----	Droughty, small stones.
Tusel-----	Well suited-----	
885: Cleavage-----	Poorly suited-----	Droughty, small stones.
Cleavage-----	Poorly suited-----	Droughty, small stones.
Reluctan-----	Suited-----	Too arid.
886: Bullump-----	Well suited-----	
Cleavage-----	Poorly suited-----	Droughty.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
891: Cleavage-----	Poorly suited-----	Droughty, small stones.
Harcany-----	Well suited-----	
Softscrabble-----	Poorly suited-----	Rooting depth.
892: Cleavage-----	Poorly suited-----	Droughty.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Softscrabble-----	Poorly suited-----	Rooting depth.
900: Bregar-----	Poorly suited-----	Droughty, small stones, depth to rock.
Linrose-----	Suited-----	Too arid.
Roca-----	Poorly suited-----	Small stones, rooting depth.
901: Reluctan-----	Suited-----	Too arid.
Roca-----	Poorly suited-----	Small stones, rooting depth.
902: Alyan-----	Well suited-----	
Quomus-----	Suited-----	Too arid.
Roca-----	Poorly suited-----	Small stones, rooting depth.
903: Reluctan-----	Poorly suited-----	Small stones.
Roca-----	Poorly suited-----	Rooting depth.
Walti-----	Poorly suited-----	Rooting depth.
907: Climine-----	Poorly suited-----	Small stones.
Roca-----	Poorly suited-----	Small stones, rooting depth.
Rock outcrop-----	Not rated-----	

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
909:		
Nomara-----	Suited-----	Too arid.
Roca-----	Poorly suited-----	Rooting depth.
Rock outcrop-----	Not rated-----	
911:		
Barnard-----	Poorly suited-----	Rooting depth.
Barnard-----	Poorly suited-----	Rooting depth.
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
921:		
Reluctan-----	Suited-----	Too arid, droughty.
Sumine-----	Poorly suited-----	Rooting depth.
Walti-----	Poorly suited-----	Rooting depth.
922:		
Reluctan-----	Suited-----	Too arid.
Tusel-----	Suited-----	Droughty.
Walti-----	Poorly suited-----	Rooting depth.
923:		
Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Tusel-----	Suited-----	Droughty.
Walti-----	Poorly suited-----	Rooting depth.
924:		
Alyan-----	Well suited-----	
Tusk-----	Well suited-----	
Walti-----	Poorly suited-----	Rooting depth.
930:		
Oxcorel-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
Tenabo-----	Poorly suited-----	Too arid, rooting depth, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
940: Rock outcrop-----	Not rated-----	
Soughe-----	Poorly suited-----	Droughty, small stones.
Soughe-----	Poorly suited-----	Droughty, small stones.
941: Rock outcrop-----	Not rated-----	
Soughe-----	Poorly suited-----	Droughty, small stones.
942: Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Rock outcrop-----	Not rated-----	
Soughe-----	Poorly suited-----	Droughty, small stones.
943: Soughe-----	Poorly suited-----	Droughty.
Soughe-----	Poorly suited-----	Droughty, small stones.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
944: Rock outcrop-----	Not rated-----	
Soughe-----	Poorly suited-----	Droughty, small stones, rooting depth.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
946: Rubble land-----	Poorly suited-----	Too arid, droughty, large stones.
Soughe-----	Poorly suited-----	Droughty, small stones.
947: Soughe-----	Poorly suited-----	Droughty, small stones.
Soughe-----	Poorly suited-----	Droughty.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
954: Puffer-----	Poorly suited-----	Too arid, droughty, small stones.
Rock outcrop-----	Not rated-----	
Xine-----	Suited-----	Too arid, droughty.
955: Puffer-----	Poorly suited-----	Too arid, droughty, small stones.
Rock outcrop-----	Not rated-----	
Soughe-----	Poorly suited-----	Droughty, small stones.
960: Kelk-----	Suited-----	Too arid, excess salt.
Wieland-----	Poorly suited-----	Rooting depth.
Zevadez-----	Suited-----	Too arid, excess sodium.
962: Vanwyper-----	Poorly suited-----	Rooting depth.
Zevadez-----	Suited-----	Too arid, excess sodium.
963: McConnel-----	Poorly suited-----	Excess salt.
Zevadez-----	Suited-----	Too arid, excess sodium.
964: Zevadez-----	Suited-----	Too arid, excess sodium.
970: Gosumi-----	Poorly suited-----	Small stones, rooting depth.
Walti-----	Poorly suited-----	Rooting depth.
980: Snowmore-----	Suited-----	Too arid, droughty, excess sodium.
Snowmore-----	Suited-----	Too arid, droughty, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
981: Snowmore-----	Suited-----	Too arid, droughty, excess sodium.
Snowmore-----	Suited-----	Too arid, droughty, excess sodium.
Zevadez-----	Suited-----	Too arid, excess sodium.
983: Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Snowmore-----	Suited-----	Too arid, droughty, excess sodium.
984: Devada-----	Poorly suited-----	Droughty, rooting depth.
Snowmore-----	Suited-----	Too arid, droughty, excess sodium.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
990: Playas-----	Poorly suited-----	Too arid, droughty, excess salt.
994: Dune land-----	Poorly suited-----	Too arid, droughty, too sandy.
995: Davey-----	Suited-----	Too arid, droughty, too sandy.
Dune land-----	Poorly suited-----	Too arid, droughty, too sandy.
Goldrun-----	Poorly suited-----	Too sandy.
998: Dumps-----	Poorly suited-----	Too arid, droughty, large stones.
Pits-----	Not rated-----	
999: Slickens-----	Not rated-----	
1004: Davey-----	Suited-----	Too arid, droughty, too sandy.
Soughe-----	Poorly suited-----	Droughty, small stones.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1005:		
Flue-----	Poorly suited-----	Excess sodium.
Soughe-----	Poorly suited-----	Droughty, rooting depth.
Soughe-----	Poorly suited-----	Droughty, small stones.
1007:		
Burrita-----	Poorly suited-----	Droughty, rooting depth.
Puett-----	Poorly suited-----	Too arid, droughty.
Soughe-----	Poorly suited-----	Droughty, small stones.
1010:		
Bartome-----	Suited-----	Too arid, droughty, cemented pan.
Chiara-----	Poorly suited-----	Droughty, excess sodium.
1020:		
Wholan-----	Poorly suited-----	Too arid, excess salt.
1023:		
Bliss-----	Suited-----	Too arid.
Enko-----	Suited-----	Too arid, excess salt, excess sodium.
Wholan-----	Poorly suited-----	Too arid, excess salt.
1025:		
Wholan-----	Poorly suited-----	Too arid, excess salt.
1030:		
Bullump-----	Poorly suited-----	Small stones.
Harcany-----	Well suited-----	
Westbutte-----	Well suited-----	
1031:		
Bullump-----	Suited-----	Erodes easily.
Cleavage-----	Poorly suited-----	Droughty, small stones.
Sumine-----	Suited-----	Too arid, droughty.
1050:		
Argenta-----	Poorly suited-----	Too arid, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1051: Argenta-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Preble-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1052: Argenta-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Preble-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1055: Argenta-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1060: Paranat-----	Poorly suited-----	Excess salt.
1061: Paranat-----	Suited-----	Excess salt, excess sodium.
1064: Paranat-----	Suited-----	Excess salt, excess sodium.
Paranat-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
1066: Paranat-----	Suited-----	Excess salt, excess sodium.
1067: Paranat-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
1072: Hoot-----	Poorly suited-----	Too arid, droughty, small stones.
Laped-----	Poorly suited-----	Too arid, droughty, rooting depth.
Rubble land-----	Poorly suited-----	Too arid, droughty, large stones.
1075: Hoot-----	Poorly suited-----	Too arid, droughty, small stones.
Panlee-----	Suited-----	Too arid.
Rock outcrop-----	Not rated-----	

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1077:		
Hoot-----	Poorly suited-----	Too arid, droughty, small stones.
Rock outcrop-----	Not rated-----	
Soughe-----	Poorly suited-----	Droughty, small stones.
1078:		
Genaw-----	Suited-----	Too arid, droughty, depth to rock.
Hoot-----	Poorly suited-----	Too arid, droughty, small stones.
1090:		
Argenta-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Soolake-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1100:		
Wendane-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
1101:		
Wendane-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1102:		
Wendane-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Wendane-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
1104:		
Sonoma-----	Poorly suited-----	Excess salt.
Wendane-----	Poorly suited-----	Excess salt, excess sodium, too crusty.
1110:		
Theon-----	Poorly suited-----	Too arid, droughty, small stones.
1120:		
Kelk-----	Suited-----	Too arid, excess salt.
Relley-----	Poorly suited-----	Too arid.
1140:		
Layview-----	Poorly suited-----	Droughty, small stones.
Layview-----	Poorly suited-----	Droughty, small stones.
Tusel-----	Poorly suited-----	Large stones.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1142: Layview-----	Poorly suited-----	Droughty, small stones.
Udelope-----	Poorly suited-----	Droughty.
1150: Cotant-----	Poorly suited-----	Droughty, large stones, rooting depth.
Cotant-----	Poorly suited-----	Rooting depth.
Say-----	Suited-----	Too arid, droughty.
1151: Cotant-----	Poorly suited-----	Rooting depth.
Gol-----	Poorly suited-----	Droughty.
Say-----	Suited-----	Too arid, droughty.
1160: Hawsley-----	Poorly suited-----	Too arid, droughty, too sandy.
1161: Hawsley-----	Poorly suited-----	Too arid, droughty, too sandy.
Isolde-----	Poorly suited-----	Too arid.
1162: Davey-----	Suited-----	Too arid, too sandy.
Hawsley-----	Poorly suited-----	Too arid, droughty, too sandy.
Mazuma-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1167: Hawsley-----	Poorly suited-----	Too arid, droughty, too sandy.
1168: Davey-----	Suited-----	Too arid, too sandy.
Essal-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Hawsley-----	Poorly suited-----	Too arid, droughty, too sandy.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1169:		
Hawsley-----	Poorly suited-----	Too arid, droughty, too sandy.
Panlee-----	Suited-----	Too arid.
Soughe-----	Poorly suited-----	Droughty, rooting depth.
1170:		
Bliss-----	Suited-----	Too arid.
Hunnton-----	Suited-----	Too arid, droughty, excess salt.
Trunk-----	Poorly suited-----	Rooting depth.
1171:		
Dugchip-----	Poorly suited-----	Excess salt, excess sodium.
Hunnton-----	Suited-----	Too arid, droughty.
Orovada-----	Suited-----	Too arid, excess salt, excess sodium.
1172:		
Flue-----	Poorly suited-----	Excess sodium.
Hunnton-----	Suited-----	Too arid, droughty, erodes easily.
McConnel-----	Suited-----	Too arid, droughty.
1173:		
Hunnton-----	Suited-----	Too arid, droughty.
1174:		
Enko-----	Suited-----	Too arid, excess salt, excess sodium.
Hunnton-----	Suited-----	Too arid, droughty.
Zevadez-----	Suited-----	Too arid, excess sodium.
1175:		
Connel-----	Suited-----	Too arid, excess sodium.
Goosel-----	Poorly suited-----	Small stones.
Hunnton-----	Suited-----	Too arid, droughty, excess salt.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1176:		
Dacker-----	Suited-----	Too arid, droughty, excess salt.
Hunnton-----	Poorly suited-----	Rooting depth.
Hunnton-----	Suited-----	Too arid, droughty, excess salt.
1180:		
Hoot-----	Poorly suited-----	Too arid, droughty, small stones.
Rocconda-----	Poorly suited-----	Too arid, droughty, small stones.
1181:		
Hoot-----	Poorly suited-----	Too arid, droughty, small stones.
Rocconda-----	Poorly suited-----	Too arid, droughty, small stones.
Soughe-----	Poorly suited-----	Droughty, small stones.
1184:		
Panlee-----	Suited-----	Too arid.
Rocconda-----	Poorly suited-----	Too arid, droughty, small stones.
Rock outcrop-----	Not rated-----	
1185:		
Atlow-----	Poorly suited-----	Too arid, droughty, small stones.
Quomus-----	Suited-----	Too arid.
Rocconda-----	Poorly suited-----	Too arid, droughty, small stones.
1186:		
Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Midraw-----	Poorly suited-----	Droughty, rooting depth.
Rocconda-----	Poorly suited-----	Droughty, small stones, rooting depth.
1187:		
Hoot-----	Poorly suited-----	Too arid, droughty, small stones.
Panlee-----	Suited-----	Too arid.
Rocconda-----	Poorly suited-----	Too arid, droughty, small stones.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1188: Rocconda-----	Poorly suited-----	Too arid, droughty, small stones.
Rocconda-----	Poorly suited-----	Too arid, droughty, small stones.
1189: Rocconda-----	Poorly suited-----	Too arid, droughty, small stones.
Soughe-----	Poorly suited-----	Droughty.
1192: Enko-----	Suited-----	Too arid, excess salt, excess sodium.
1194: Enko-----	Suited-----	Too arid, excess salt, excess sodium.
1200: Erakatak-----	Poorly suited-----	Droughty, rooting depth.
Madeline-----	Poorly suited-----	Droughty.
1201: Erakatak-----	Poorly suited-----	Droughty, small stones, rooting depth.
Harcany-----	Well suited-----	
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
1202: Bullump-----	Poorly suited-----	Small stones.
Erakatak-----	Poorly suited-----	Droughty, small stones, rooting depth.
Rock outcrop-----	Not rated-----	
1210: Cresal-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Playas-----	Poorly suited-----	Too arid, droughty, excess salt.
1211: Cresal-----	Poorly suited-----	Too arid, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1212:		
Cresal-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Playas-----	Poorly suited-----	Too arid, droughty, excess salt.
Tresed-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1221:		
Alyan-----	Poorly suited-----	Small stones.
Bilbo-----	Poorly suited-----	Small stones.
1230:		
Knott-----	Poorly suited-----	Too arid, droughty, rooting depth.
Sodhouse-----	Poorly suited-----	Too arid, droughty, excess sodium.
Wholan-----	Poorly suited-----	Too arid, excess salt.
1240:		
Laped-----	Poorly suited-----	Too arid, droughty, small stones.
1241:		
Boger-----	Poorly suited-----	Droughty.
Laped-----	Poorly suited-----	Too arid, droughty.
1255:		
Bregar-----	Poorly suited-----	Droughty, small stones, depth to rock.
Cleavage-----	Poorly suited-----	Droughty.
Dutchjohn-----	Well suited-----	
1260:		
Trocken-----	Poorly suited-----	Too arid, excess sodium.
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1271:		
Gol-----	Poorly suited-----	Droughty, small stones.
Rock outcrop-----	Not rated-----	
Say-----	Suited-----	Too arid, droughty, large stones.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1285:		
Gochea-----	Suited-----	Too arid, droughty.
Igdell-----	Poorly suited-----	Rooting depth.
1291:		
Isolde-----	Poorly suited-----	Too arid, excess salt.
Tresed-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1292:		
Tresed-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1310:		
Dewar-----	Poorly suited-----	Droughty, rooting depth.
Tenabo-----	Poorly suited-----	Too arid, rooting depth, excess sodium.
1312:		
Dacker-----	Poorly suited-----	Rooting depth.
Dewar-----	Poorly suited-----	Droughty, rooting depth.
Dewar-----	Poorly suited-----	Droughty, rooting depth.
1313:		
Dewar-----	Poorly suited-----	Droughty, rooting depth.
Midraw-----	Poorly suited-----	Droughty, rooting depth.
Sodhouse-----	Poorly suited-----	Excess sodium.
1314:		
Dewar-----	Poorly suited-----	Droughty, rooting depth.
Zevadez-----	Suited-----	Too arid, excess sodium.
1315:		
Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Chiara-----	Poorly suited-----	Droughty, excess sodium.
Dewar-----	Poorly suited-----	Droughty, rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1321:		
Midraw-----	Poorly suited-----	Droughty, small stones, rooting depth.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
Vanwyper-----	Poorly suited-----	Rooting depth.
1322:		
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Vanwyper-----	Poorly suited-----	Rooting depth.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
1324:		
Gowjai-----	Suited-----	Too arid.
Panlee-----	Suited-----	Too arid.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
1327:		
Gowjai-----	Suited-----	Too arid.
Soughe-----	Poorly suited-----	Droughty, small stones.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
1331:		
Aycab-----	Poorly suited-----	Droughty.
Ola-----	Poorly suited-----	Droughty, small stones.
Siscab-----	Poorly suited-----	Droughty, rooting depth.
1332:		
Ola-----	Poorly suited-----	Droughty, small stones.
Rock outcrop-----	Not rated-----	
Siscab-----	Poorly suited-----	Droughty, rooting depth.
1333:		
Rock outcrop-----	Not rated-----	
Say-----	Suited-----	Too arid, droughty, large stones.
Siscab-----	Poorly suited-----	Droughty, rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1334:		
Eaglerock-----	Poorly suited-----	Droughty, small stones.
Rock outcrop-----	Not rated-----	
Siscab-----	Poorly suited-----	Droughty, rooting depth.
1335:		
Rock outcrop-----	Not rated-----	
Siscab-----	Poorly suited-----	Droughty, rooting depth.
Westbutte-----	Well suited-----	
1341:		
Longcreek-----	Poorly suited-----	Droughty, small stones.
Menbo-----	Poorly suited-----	Droughty, small stones, rooting depth.
Rock outcrop-----	Not rated-----	
1342:		
Longcreek-----	Poorly suited-----	Droughty, small stones, erodes easily.
Rock outcrop-----	Not rated-----	
1344:		
Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Longcreek-----	Poorly suited-----	Droughty, small stones.
Softscrabble-----	Poorly suited-----	Small stones, rooting depth.
1345:		
Longcreek-----	Poorly suited-----	Droughty.
Zymans-----	Poorly suited-----	Rooting depth.
1360:		
Midraw-----	Poorly suited-----	Droughty, rooting depth.
Midraw-----	Poorly suited-----	Droughty, rooting depth.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1362:		
Hunnton-----	Suited-----	Too arid, droughty.
Midraw-----	Poorly suited-----	Droughty, rooting depth.
Midraw-----	Poorly suited-----	Droughty, rooting depth.
1371:		
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
1373:		
Devada-----	Poorly suited-----	Droughty, rooting depth.
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Zymans-----	Poorly suited-----	Rooting depth.
1380:		
Genaw-----	Suited-----	Too arid, droughty, depth to rock.
Rocconda-----	Poorly suited-----	Droughty, small stones, rooting depth.
Soughe-----	Poorly suited-----	Droughty.
1381:		
Devada-----	Poorly suited-----	Droughty, rooting depth.
Genaw-----	Poorly suited-----	Droughty.
Trunk-----	Poorly suited-----	Rooting depth.
1382:		
Genaw-----	Poorly suited-----	Droughty.
Puett-----	Poorly suited-----	Too arid, droughty.
1390:		
Mulhop-----	Poorly suited-----	Droughty, small stones.
Rock outcrop-----	Not rated-----	
Xine-----	Suited-----	Too arid, droughty.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1400:		
Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Madeline-----	Poorly suited-----	Droughty.
Vanwyper-----	Poorly suited-----	Rooting depth.
1410:		
Aycab-----	Poorly suited-----	Droughty.
Say-----	Suited-----	Too arid, droughty, erodes easily.
Tosp-----	Well suited-----	
1411:		
Aycab-----	Poorly suited-----	Droughty.
Say-----	Poorly suited-----	Erodes easily.
1420:		
Burrita-----	Poorly suited-----	Droughty, rooting depth.
Panlee-----	Poorly suited-----	Erodes easily.
Panlee-----	Poorly suited-----	Small stones.
1421:		
Davey-----	Suited-----	Too arid, too sandy.
Panlee-----	Poorly suited-----	Erodes easily.
Soughe-----	Poorly suited-----	Droughty.
1423:		
Carstump-----	Poorly suited-----	Rooting depth.
Panlee-----	Poorly suited-----	Erodes easily.
Vanwyper-----	Poorly suited-----	Droughty, small stones, rooting depth.
1431:		
Hunnton-----	Poorly suited-----	Rooting depth.
Rodock-----	Suited-----	Too arid, excess salt.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1432: Connel-----	Suited-----	Too arid, excess sodium.
Rodock-----	Suited-----	Too arid, excess salt.
1433: Rodock-----	Suited-----	Too arid, excess salt.
1436: Rodock-----	Suited-----	Too arid, excess salt.
1437: Rodock-----	Poorly suited-----	Excess salt.
1450: Climine-----	Well suited-----	
Wiskan-----	Poorly suited-----	Droughty, small stones.
1460: Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Reluctan-----	Suited-----	Too arid.
1461: Alyan-----	Well suited-----	
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Tusel-----	Suited-----	Droughty.
1462: Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
1464: Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Sumine-----	Suited-----	Too arid, droughty, large stones.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1465:		
Cleavage-----	Poorly suited-----	Droughty, small stones.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Tusel-----	Suited-----	Droughty.
1466:		
Bullump-----	Well suited-----	
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Tusel-----	Suited-----	Droughty.
1467:		
Ninemile-----	Poorly suited-----	Droughty, rooting depth, erodes easily.
Tusel-----	Suited-----	Droughty.
Udelope-----	Poorly suited-----	Droughty.
1468:		
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Softscrabble-----	Poorly suited-----	Rooting depth.
1469:		
Ninemile-----	Poorly suited-----	Droughty, rooting depth, erodes easily.
Softscrabble-----	Poorly suited-----	Rooting depth.
Sumine-----	Poorly suited-----	Small stones.
1470:		
Burrita-----	Poorly suited-----	Droughty, rooting depth.
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Zymans-----	Poorly suited-----	Rooting depth.
1471:		
Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Soughe-----	Poorly suited-----	Droughty, small stones.
Zymans-----	Poorly suited-----	Rooting depth, erodes easily.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1472:		
Burrita-----	Poorly suited-----	Droughty, small stones, rooting depth.
Zymans-----	Poorly suited-----	Rooting depth.
Zymans-----	Poorly suited-----	Rooting depth.
1473:		
Genaw-----	Poorly suited-----	Droughty.
Zymans-----	Poorly suited-----	Rooting depth.
1480:		
Rock outcrop-----	Not rated-----	
Tusel-----	Poorly suited-----	Small stones.
1481:		
Cleavage-----	Poorly suited-----	Droughty, small stones.
Tusel-----	Poorly suited-----	Small stones.
1482:		
Layview-----	Poorly suited-----	Droughty, small stones.
Tusel-----	Suited-----	Droughty, erodes easily.
1483:		
Hackwood-----	Well suited-----	
Spinlin-----	Poorly suited-----	Small stones, rooting depth.
Tusel-----	Suited-----	Droughty, erodes easily.
1484:		
Cleavage-----	Poorly suited-----	Droughty, small stones.
Ninemile-----	Poorly suited-----	Droughty, rooting depth.
Tusel-----	Suited-----	Droughty, erodes easily.
1500:		
Acrelane-----	Poorly suited-----	Droughty.
Eaglerock-----	Poorly suited-----	Droughty, small stones.
Rock outcrop-----	Not rated-----	

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1520:		
Croesus-----	Poorly suited-----	Droughty, small stones.
Rock outcrop-----	Not rated-----	
1521:		
Croesus-----	Poorly suited-----	Droughty, small stones.
Rock outcrop-----	Not rated-----	
1522:		
Croesus-----	Poorly suited-----	Droughty, small stones.
Harcany-----	Well suited-----	
Rock outcrop-----	Not rated-----	
1523:		
Croesus-----	Poorly suited-----	Droughty, small stones.
Layview-----	Poorly suited-----	Droughty, small stones.
Udelope-----	Poorly suited-----	Droughty.
1524:		
Croesus-----	Poorly suited-----	Droughty, small stones.
Spinlin-----	Poorly suited-----	Rooting depth.
1530:		
Westbutte-----	Suited-----	Erodes easily.
1540:		
Locane-----	Poorly suited-----	Droughty, small stones, rooting depth.
1551:		
Anawalt-----	Poorly suited-----	Droughty, rooting depth.
Anawalt-----	Poorly suited-----	Too arid, droughty, rooting depth.
Charwell-----	Poorly suited-----	Droughty, rooting depth.
1560:		
Menbo-----	Poorly suited-----	Droughty, small stones, rooting depth.
Rock outcrop-----	Not rated-----	

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1561:		
Madeline-----	Poorly suited-----	Droughty.
Menbo-----	Poorly suited-----	Droughty, rooting depth.
Tusel-----	Well suited-----	
1562:		
Devada-----	Poorly suited-----	Droughty, small stones, rooting depth.
Longcreek-----	Poorly suited-----	Droughty.
Menbo-----	Poorly suited-----	Droughty, rooting depth.
1570:		
Delvada-----	Suited-----	Too clayey, excess salt, excess sodium.
1572:		
Delvada-----	Poorly suited-----	Excess salt, excess sodium.
1579:		
Delvada-----	Suited-----	Too clayey, excess salt, excess sodium.
1580:		
Essal-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Essal-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Isolde-----	Poorly suited-----	Too arid, excess salt, soil blowing.
1594:		
Boton-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Boton-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1600:		
Clurde-----	Suited-----	Too arid, excess sodium.
1610:		
Gochea-----	Suited-----	Too arid, droughty.
Gochea-----	Suited-----	Too arid, droughty.
Igdell-----	Poorly suited-----	Rooting depth.
1620:		
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.

TABLE 6.--SUITABILITY FOR RANGELAND SEEDING--Continued

Soil name and map symbol	Limitation rating	Restrictive features
1621:		
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Wholan-----	Poorly suited-----	Too arid, excess salt.
1622:		
Broyles-----	Poorly suited-----	Too arid, excess salt, excess sodium.
Davey-----	Suited-----	Too arid, too sandy.
Weso-----	Poorly suited-----	Too arid, excess salt, excess sodium.
1630:		
Bliss-----	Suited-----	Too arid.
1631:		
Bliss-----	Suited-----	Too arid.
1640:		
Kleck-----	Suited-----	Too arid, droughty, depth to rock.
1650:		
Water-----	Not rated-----	
1651:		
Miscellaneous w-----	Not rated-----	

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY

(Only the map units suitable for production of trees are listed)

Map symbol and soil name	Ordination symbol	Management concerns					Potential productivity		
		Erosion hazard	Equipment limitation	Seedling mortality	Wind-throw hazard	Plant competition	Common trees	Site index	Volume of wood fiber m ³ /ha
311: Harcany-----	---	---	---	---	---	---	-----	---	---
Croesus-----	---	---	---	---	---	---	-----	---	---
Hackwood-----	1A	Moderate	Moderate	Slight	Moderate	Slight	quaking aspen-----	40	1
312: Harcany-----	---	---	---	---	---	---	-----	---	---
Hackwood-----	1R	Severe	Severe	Slight	Moderate	Slight	quaking aspen-----	44	1
Cleavage-----	---	---	---	---	---	---	-----	---	---
381: Bullump-----	---	---	---	---	---	---	-----	---	---
Tusel-----	---	---	---	---	---	---	-----	---	---
Hackwood-----	1R	Severe	Severe	Slight	Moderate	Slight	quaking aspen-----	44	1
573: Spinlin-----	---	---	---	---	---	---	-----	---	---
Harcany-----	---	---	---	---	---	---	-----	---	---
Hackwood-----	1A	Moderate	Moderate	Slight	Moderate	Slight	quaking aspen-----	44	1
574: Spinlin-----	---	---	---	---	---	---	-----	---	---
Hackwood-----	1R	Severe	Severe	Slight	Moderate	Slight	quaking aspen-----	44	1
Tusel-----	---	---	---	---	---	---	-----	---	---
801: Udelope-----	---	---	---	---	---	---	-----	---	---
Hackwood-----	1R	Severe	Severe	Slight	Moderate	Slight	quaking aspen-----	44	1
Tusel-----	---	---	---	---	---	---	-----	---	---
1390: Mulhop-----	0R	Severe	Severe	Moderate	Slight	Severe	Utah juniper-----	20	0
Xine-----	---	---	---	---	---	---	-----	---	---
Rock Outcrop---	---	---	---	---	---	---	-----	---	---
1410: Say-----	---	---	---	---	---	---	-----	---	---
Tosp-----	1R	Severe	Severe	Slight	Moderate	Slight	quaking aspen-----	45	1
Aycab-----	---	---	---	---	---	---	-----	---	---
1483: Tusel-----	---	---	---	---	---	---	-----	---	---
Hackwood-----	1R	Severe	Severe	Slight	Moderate	Slight	quaking aspen-----	44	1
Spinlin-----	---	---	---	---	---	---	-----	---	---

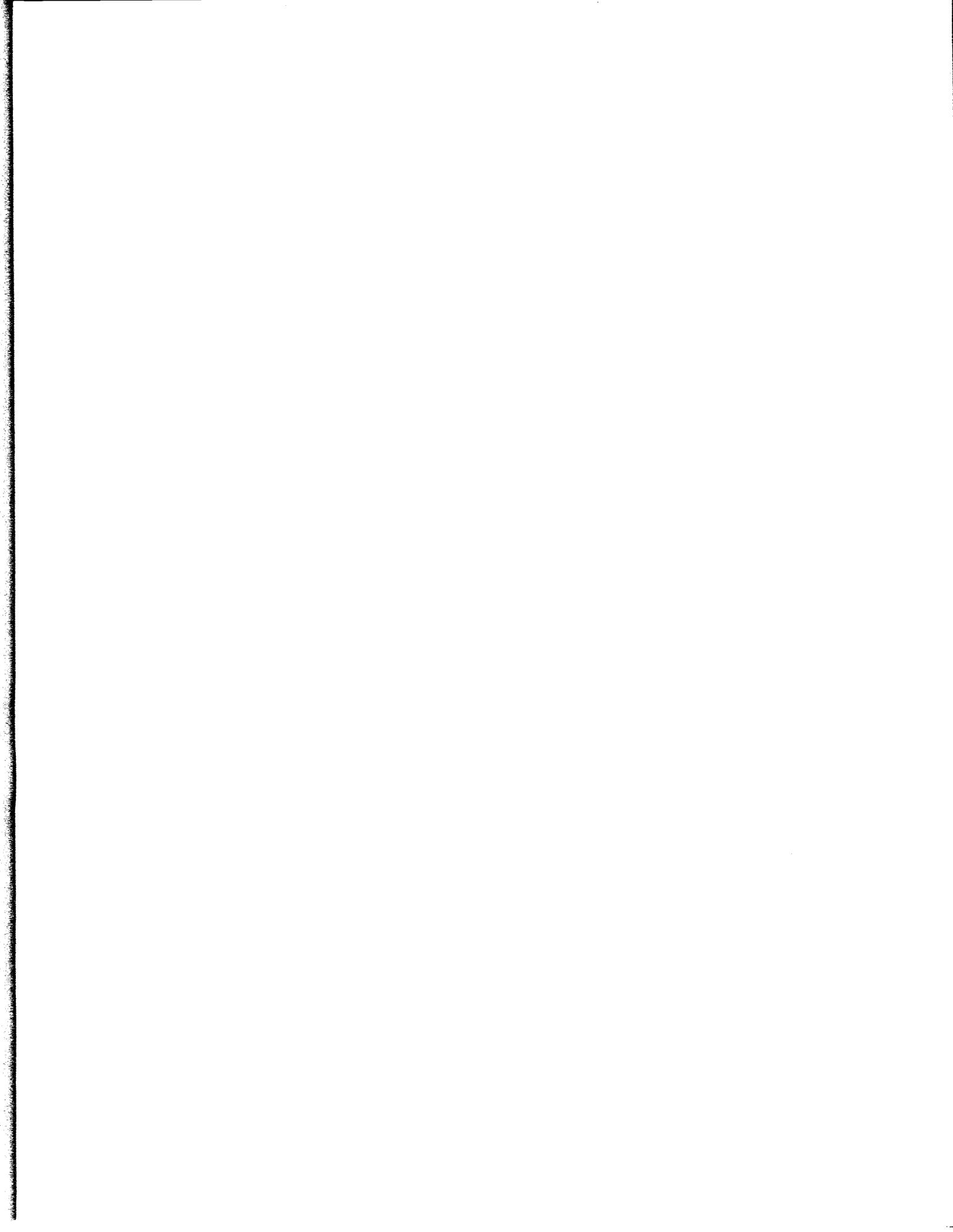


TABLE 8.--BUILDING SITE DEVELOPMENT

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
100: Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
Alyan-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
101: Anawalt-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Alyan-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell	Severe: shrink-swell	Severe: small stones
102: Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Tusk-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
106: Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Ninemile-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: small stones depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Alyan-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: shrink-swell	Moderate: large stones small stones droughty
107: Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Tusk-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
108: Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones slope depth to rock
Alyan-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: slope
110: Adelaide-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: low strength	Severe: cemented pan
120: Bregar-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Tusk-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Bregar-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
122: Bregar-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: small stones depth to rock
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
131: Benin-----	Moderate: too clayey	Severe: shrink-swell	Severe: shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess salt
133: Benin-----	Moderate: too clayey	Severe: shrink-swell	Severe: shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess salt
141: Beoska-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Severe: excess sodium
Bluewing-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Severe: small stones droughty
143: Beoska-----	Slight	Moderate: shrink-swell	Slight	Moderate: shrink-swell	Severe: low strength	Severe: excess sodium excess salt
Broyles-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Severe: excess salt
144: Beoska-----	Slight	Moderate: shrink-swell	Slight	Moderate: shrink-swell	Severe: low strength	Severe: excess sodium
Dun Glen-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Slight
145: Beoska-----	Slight	Moderate: shrink-swell	Slight	Moderate: shrink-swell slope	Severe: low strength	Severe: excess sodium
Beoska-----	Moderate: slope	Moderate: shrink-swell slope	Moderate: slope	Severe: slope	Severe: low strength	Severe: excess sodium
Weso-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
151: Blackhawk-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: cemented pan	Severe: cemented pan
152: Blackhawk-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: cemented pan	Severe: cemented pan
154: Blackhawk-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: cemented pan	Severe: cemented pan
Golconda-----	Moderate: cemented pan	Moderate: shrink-swell	Moderate: cemented pan shrink-swell	Moderate: shrink-swell slope	Severe: low strength	Severe: excess sodium
Orovada-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: small stones
155: Blackhawk-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: cemented pan	Severe: cemented pan
156: Blackhawk-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: cemented pan	Severe: cemented pan
Clurde-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
157: Blackhawk-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: cemented pan	Severe: cemented pan
Broyles-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
158: Blackhawk-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: cemented pan	Severe: cemented pan small stones
Trocken-----	Severe: cutbanks cave	Moderate: large stones	Moderate: large stones	Moderate: large stones	Moderate: large stones	Severe: small stones
160: Bliss-----	Severe: cemented pan	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: frost action cemented pan	Moderate: cemented pan

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
161: Bliss-----	Severe: cemented pan	Moderate: cemented pan slope	Severe: cemented pan	Severe: slope	Moderate: frost action cemented pan slope	Moderate: cemented pan slope
Chiara-----	Severe: cemented pan slope	Severe: cemented pan slope	Severe: cemented pan slope	Severe: cemented pan slope	Severe: cemented pan slope	Severe: cemented pan slope
163: Bliss-----	Severe: cemented pan	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: frost action cemented pan	Moderate: cemented pan
Shabliss-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: frost action cemented pan	Severe: cemented pan
165: Bliss-----	Severe: cemented pan	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: frost action cemented pan	Moderate: cemented pan
Dugchip-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: low strength	Severe: excess sodium
Orovada-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Slight
166: Bliss-----	Severe: cemented pan	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: frost action cemented pan	Moderate: cemented pan
Orovada-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Slight
Shabliss-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: frost action cemented pan	Severe: cemented pan
167: Bliss-----	Severe: cemented pan	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: frost action cemented pan	Moderate: cemented pan
Blackhawk-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: cemented pan	Severe: cemented pan
Adelaide-----	Severe: cemented pan	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell	Severe: low strength	Severe: cemented pan

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Boger-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: cemented pan depth to rock	Severe: depth to rock
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
188: Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Severe: cemented pan large stones
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
190: Beeox-----	Severe: cutbanks cave	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: excess sodium
Oxcotel-----	Moderate: too clayey	Slight	Slight	Slight	Slight	Severe: excess sodium
191: Beeox-----	Severe: cutbanks cave	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: excess sodium
Connel-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: small stones droughty
192: Beeox-----	Severe: cutbanks cave	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell slope	Moderate: shrink-swell	Severe: excess sodium
Bliss-----	Severe: cemented pan	Moderate: cemented pan slope	Severe: cemented pan	Severe: slope	Moderate: frost action cemented pan slope	Moderate: cemented pan slope
200: Davey-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Severe: excess salt
201: Davey-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
202: Davey-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
203: Davey-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
Goldrun-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
204: Davey-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Blackhawk-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: cemented pan	Severe: cemented pan
205: Davey-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Hawsley-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
206: Broyles-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Severe: excess salt
Davey-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
Dun Glen-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Slight
207: Davey-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
Pumper-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
208: Davey-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
210: Flue-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess sodium
Connel-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Moderate: small stones droughty
211: Flue-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess sodium
Golconda-----	Moderate: cemented pan	Moderate: shrink-swell	Moderate: cemented pan shrink-swell	Moderate: shrink-swell	Severe: low strength	Severe: excess sodium
Snapp-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: frost action slope	Severe: excess sodium

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
212: Flue-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess sodium
Orovada-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
213: Flue-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell slope	Severe: low strength shrink-swell	Severe: excess sodium
Puett-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones depth to rock
215: Flue-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess sodium
Snapp-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Severe: excess sodium
Snapp-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: frost action slope	Severe: excess sodium large stones
216: Flue-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess sodium
217: Flue-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess sodium
218: Flue-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess sodium
Rodock-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: droughty
Snapp-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Severe: excess sodium
222: Bloor-----	Moderate: wetness	Moderate: shrink-swell	Moderate: wetness	Moderate: shrink-swell	Severe: low strength	Severe: excess sodium excess salt
231: Dun Glen-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Slight

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
233: Dun Glen-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Slight
241: Sojur-----	Severe: slope depth to rock	Severe: slope small stones depth to rock				
250: Connel-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Moderate: droughty
Davey-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Goldrun-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
251: Connel-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Moderate: droughty
252: Connel-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Moderate: small stones droughty
253: Connel-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Moderate: excess salt droughty
McConnel-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding droughty
254: Connel-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Moderate: droughty
Zevadez-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: frost action slope	Moderate: slope
255: Connel-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: droughty
McConnel-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Moderate: small stones droughty
257: Connel-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Moderate: droughty

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
258: Connel-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Moderate: excess salt droughty
262: Golconda-----	Moderate: cemented pan	Moderate: shrink-swell	Moderate: cemented pan shrink-swell	Moderate: shrink-swell slope	Severe: low strength	Severe: excess sodium
Snapp-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: frost action slope	Severe: excess sodium
263: Bliss-----	Severe: cemented pan	Moderate: cemented pan slope	Severe: cemented pan	Severe: slope	Moderate: frost action cemented pan slope	Moderate: cemented pan slope
Golconda-----	Moderate: cemented pan slope	Moderate: shrink-swell slope	Moderate: cemented pan shrink-swell slope	Severe: slope	Severe: low strength	Severe: excess sodium
Connel-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: droughty
270: Goldrun-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
271: Goldrun-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
272: Goldrun-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
274: Goldrun-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
Benin-----	Moderate: too clayey	Severe: shrink-swell	Severe: shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess salt
275: Goldrun-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
Preble-----	Severe: cutbanks cave	Slight	Moderate: wetness	Slight	Moderate: frost action	Severe: excess salt

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
281: Golsum-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Harcany-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Spinlin-----	Severe: slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: slope
290: Havingdon-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
292: Havingdon-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones small stones droughty
Gowjai-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Walti-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: large stones slope
302: Essal-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: excess salt
Isolde-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
Playas-----	Severe: ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: low strength shrink-swell ponding	Severe: excess salt ponding droughty
305: Essal-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
Isolde-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
Hawsley-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
307: Essal-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
Isolde-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
Tresed-----	Severe: cutbanks cave	Severe: shrink-swell	Slight	Severe: shrink-swell	Severe: low strength shrink-swell	Slight
311: Harcany-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: large stones slope
Croesus-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones droughty
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
312: Harcany-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Cleavage-----	Severe: slope depth to rock	Severe: slope small stones depth to rock				
321: Humboldt-----	Severe: wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding low strength wetness	Severe: wetness
322: Humboldt-----	Severe: wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding low strength wetness	Severe: excess salt wetness
325: Humboldt-----	Severe: wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding low strength wetness	Severe: wetness
Wendane-----	Moderate: wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action	Severe: excess sodium excess salt

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
330: McConnel-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
331: McConnel-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: small stones droughty
333: McConnel-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Shabliss-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan slope	Severe: cemented pan	Severe: slope	Moderate: frost action cemented pan slope	Severe: cemented pan
335: McConnel-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Severe: small stones
338: McConnel-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: small stones droughty
Pumper-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Whirlo-----	Slight	Slight	Slight	Moderate: slope	Slight	Moderate: small stones droughty
340: Boger-----	Severe: cemented pan depth to rock	Severe: depth to rock				
Soughe-----	Severe: slope depth to rock	Severe: large stones slope depth to rock				
342: Boger-----	Severe: cemented pan depth to rock	Severe: depth to rock				
Goosel-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: slope small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope small stones depth to rock				

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
381: Bullump-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
391: Aycab-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
403: Orovada-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
406: Orovada-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
407: Orovada-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
409: Orovada-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
Goldrun-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
410: Bliss-----	Severe: cemented pan	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: frost action cemented pan	Moderate: cemented pan
Orovada-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
411: Orovada-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
Dugchip-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: low strength	Severe: excess sodium
417: Orovada-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
Connel-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Moderate: droughty

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
420: Bubus-----	Slight	Slight	Slight	Slight	Slight	Moderate: excess salt
431: Preble-----	Severe: cutbanks cave	Slight	Moderate: wetness	Slight	Moderate: frost action	Severe: excess salt
432: Preble-----	Severe: cutbanks cave	Slight	Moderate: wetness	Slight	Moderate: frost action	Severe: excess salt
Goldrun-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: excess salt slope droughty
Playas-----	Severe: ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: low strength shrink-swell ponding	Severe: excess salt ponding droughty
435: Preble-----	Severe: cutbanks cave	Slight	Moderate: wetness	Slight	Moderate: frost action	Severe: excess salt
436: Preble-----	Severe: cutbanks cave	Slight	Moderate: wetness	Slight	Moderate: frost action	Severe: excess salt
Valmy-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: excess salt droughty
Valmy-----	Moderate: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: excess salt flooding droughty
437: Preble-----	Severe: cutbanks cave	Slight	Moderate: wetness	Slight	Moderate: frost action	Severe: excess salt
Davey-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Severe: excess salt
438: Preble-----	Severe: cutbanks cave	Slight	Moderate: wetness	Slight	Moderate: frost action	Severe: excess salt
Bubus-----	Slight	Slight	Slight	Slight	Slight	Moderate: excess salt
440: Prideen-----	Severe: wetness	Moderate: shrink-swell wetness	Severe: wetness	Moderate: shrink-swell wetness	Severe: frost action low strength	Severe: excess salt

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
441: Prideen-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: frost action low strength	Severe: excess salt
452: Kingsriver-----	Severe: wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding frost action	Moderate: flooding wetness
453: Kingsriver-----	Moderate: flooding wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding frost action	Moderate: flooding
460: Rad-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
461: Rad-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
462: Rad-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
470: Raglan-----	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: low strength shrink-swell	Slight
471: Raglan-----	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: low strength shrink-swell	Severe: excess salt
474: Raglan-----	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: low strength shrink-swell	Severe: excess salt
Kleck-----	Severe: depth to rock	Moderate: shrink-swell depth to rock	Severe: depth to rock	Moderate: shrink-swell depth to rock	Severe: low strength	Severe: depth to rock
480: Rebel-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
487: Rebel-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
490: Rose Creek-----	Severe: wetness cutbanks cave	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action	Moderate: flooding wetness
491: Rose Creek-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action	Severe: excess salt
492: Rose Creek-----	Severe: wetness cutbanks cave	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action	Severe: flooding
501: Enko-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
502: Enko-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
Goldrun-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
503: Enko-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
504: Enko-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
Shabliss-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: frost action cemented pan	Severe: cemented pan
505: Enko-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
507: Enko-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
Orovada-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
Shabliss-----	Severe: cemented pan slope cutbanks cave	Severe: slope	Severe: cemented pan slope	Severe: slope	Severe: slope	Severe: cemented pan slope
511: Mazuma-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Trocken-----	Severe: cutbanks cave	Moderate: large stones	Moderate: large stones	Moderate: large stones slope	Moderate: large stones	Moderate: large stones small stones droughty
520: Lunder-----	Severe: cemented pan	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell	Severe: cemented pan low strength shrink-swell	Severe: cemented pan
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
522: Lunder-----	Severe: cemented pan	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell	Severe: cemented pan low strength shrink-swell	Severe: cemented pan large stones small stones
Hunnton-----	Severe: cemented pan	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: cemented pan large stones
530: Shabliss-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan slope	Severe: cemented pan	Severe: slope	Moderate: frost action cemented pan slope	Severe: cemented pan
532: Shabliss-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: frost action cemented pan	Severe: cemented pan
Enko-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
Valmy-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: excess salt droughty
533: Shabliss-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan slope	Severe: cemented pan	Severe: slope	Moderate: frost action cemented pan slope	Severe: cemented pan
Connel-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Moderate: droughty
534: Shabliss-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: frost action cemented pan	Severe: cemented pan

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Puett-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones depth to rock
536: Shabliss-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan	Moderate: frost action cemented pan	Severe: cemented pan
Enko-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
Dugchip-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: low strength	Severe: excess sodium
537: Shabliss-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan slope	Severe: cemented pan	Severe: slope	Moderate: frost action cemented pan slope	Severe: cemented pan
Bliss-----	Severe: cemented pan slope	Severe: slope	Severe: cemented pan slope	Severe: slope	Severe: slope	Severe: slope
Genaw-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope depth to rock
543: Pumper-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
Connel-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Moderate: droughty
544: Pumper-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Weso-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
545: Dun Glen-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Slight
Pumper-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Davey-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
551: Ninemile-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: small stones depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Carstump-----	Severe: depth to rock	Moderate: shrink-swell slope depth to rock	Severe: depth to rock	Severe: slope	Moderate: shrink-swell slope depth to rock	Moderate: large stones slope small stones
552: Ninemile-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
553: Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
Ninemile-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Tusk-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
555: Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Alyan-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: slope small stones
557: Ninemile-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones depth to rock
558: Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
559: Ninemile-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
561: Sonoma-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Severe: excess salt
562: Sonoma-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Moderate: excess salt flooding wetness
563: Sonoma-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Severe: excess salt
564: Sonoma-----	Moderate: flooding wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding frost action low strength	Moderate: flooding
566: Sonoma-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Severe: excess salt

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Nomara-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
582: Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones
Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
583: Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope
Gosumi-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: large stones slope small stones
Harcany-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
584: Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
585: Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones slope depth to rock
586: Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Rubble Land-----	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones small stones droughty
Reluctan-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
587: Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope
Gosumi-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: large stones slope small stones
Harcany-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
588: Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
Rubble Land-----	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones small stones droughty
589: Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
Harcany-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
590: Trunk-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: large stones slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Madeline-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
592: Trunk-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
Pocan-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
593: Trunk-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
594: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock				
Trunk-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
Quomus-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
596: Trunk-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: large stones slope
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock				
597: Trunk-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: slope small stones depth to rock
Burrita-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: small stones depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
600: Valmy-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: excess salt droughty
603: Valmy-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: excess salt droughty
Goldrun-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
604: Valmy-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: excess salt droughty
Bubus-----	Slight	Slight	Slight	Slight	Slight	Moderate: excess salt
Needle Peak----	Moderate: wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action low strength	Moderate: excess salt
606: Valmy-----	Slight	Slight	Slight	Slight	Slight	Moderate: droughty
611: Weso-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Slight
613: Weso-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
Orovada-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
Shabliss-----	Severe: cemented pan slope cutbanks cave	Severe: slope	Severe: cemented pan slope	Severe: slope	Severe: slope	Severe: cemented pan slope
614: Weso-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Severe: excess salt
615: Weso-----	Slight	Slight	Slight	Slight	Slight	Slight
617: Weso-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
618: Weso-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
Kelk-----	Moderate: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding low strength	Moderate: flooding
619: Weso-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
Rebel-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
620: Carstump-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
Soughe-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones slope depth to rock
631: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
633: Burrita-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: small stones depth to rock
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell	Severe: cemented pan
634: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Devada-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones slope depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Zymans-----	Severe: slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
636: Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock				
Rubble Land----	Severe: large stones slope	Severe: large stones small stones droughty				
Clementine-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action low strength	Slight
637: Burrita-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: large stones depth to rock
Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan low strength	Severe: cemented pan
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock				
638: Burrita-----	Severe: slope depth to rock	Severe: slope small stones depth to rock				
Soughe-----	Severe: slope depth to rock	Severe: slope small stones depth to rock				
Panlee-----	Severe: slope	Severe: slope				
640: Clementine-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action low strength	Slight
641: Clementine-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action low strength	Slight
Paranat-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Moderate: flooding wetness

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
642: Clementine-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Moderate: excess salt flooding
Rose Creek-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action	Moderate: excess salt
646: Clementine-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Moderate: excess salt flooding
Paranat-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Moderate: flooding wetness
651: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock				
Soughe-----	Severe: slope depth to rock	Severe: slope small stones depth to rock				
Atlow-----	Severe: slope depth to rock	Severe: large stones slope depth to rock				
652: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock				
Havingdon-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
Reluctan-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
653: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock				
Vanwyper-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: low strength slope	Severe: slope
Havingdon-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones small stones droughty

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
654: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: large stones slope small stones
655: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
657: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Snowmore-----	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: cemented pan depth to rock	Moderate: shrink-swell slope depth to rock	Severe: low strength	Moderate: large stones depth to rock
658: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
660: Beoska-----	Slight	Moderate: shrink-swell	Slight	Moderate: shrink-swell slope	Severe: low strength	Severe: excess sodium
Oxcorel-----	Moderate: too clayey	Slight	Slight	Moderate: slope	Slight	Severe: excess sodium
Whirlo-----	Slight	Slight	Slight	Moderate: slope	Slight	Moderate: small stones droughty

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
661: Oxcorel-----	Moderate: too clayey	Slight	Slight	Moderate: slope	Slight	Severe: excess sodium
Orovada-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Moderate: small stones
663: Oxcorel-----	Moderate: too clayey	Slight	Slight	Moderate: slope	Slight	Severe: excess sodium
Weso-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Slight
Beoska-----	Slight	Moderate: shrink-swell	Slight	Moderate: shrink-swell slope	Severe: low strength	Severe: excess sodium
664: Oxcorel-----	Moderate: too clayey	Slight	Slight	Moderate: slope	Slight	Severe: excess sodium
Golconda-----	Moderate: cemented pan	Moderate: shrink-swell	Moderate: cemented pan shrink-swell	Moderate: shrink-swell slope	Severe: low strength	Severe: excess sodium
665: Oxcorel-----	Moderate: too clayey	Slight	Slight	Moderate: slope	Slight	Severe: excess sodium
Snapp-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Severe: excess sodium large stones
669: Oxcorel-----	Moderate: too clayey	Slight	Slight	Slight	Slight	Severe: excess sodium
Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan low strength	Severe: cemented pan
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
670: Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones small stones depth to rock
Goosel-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
678: Devada-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
Devada-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Rubble Land-----	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones small stones droughty
680: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Trunk-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: large stones slope
690: Sodhouse-----	Severe: cemented pan cutbanks cave	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
Golconda-----	Moderate: cemented pan	Moderate: shrink-swell	Moderate: cemented pan shrink-swell	Moderate: shrink-swell slope	Severe: low strength	Severe: excess sodium
691: Sodhouse-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
700: Atlow-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Gowjai-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
701: Atlow-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Wiskan-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones
704: Atlow-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
Atlow-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: small stones depth to rock
710: Xipe-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding frost action	Moderate: flooding
720: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan low strength	Severe: cemented pan large stones small stones
Sodhouse-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
721: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan low strength	Severe: cemented pan
Laped-----	Severe: cemented pan depth to rock	Severe: cemented pan	Severe: cemented pan depth to rock	Severe: cemented pan slope	Severe: cemented pan	Severe: cemented pan small stones
Orovada-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
722: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan low strength	Severe: cemented pan
Burrita-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock
Flue-----	Severe: cemented pan slope cutbanks cave	Severe: shrink-swell slope	Severe: cemented pan shrink-swell slope	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: excess sodium slope small stones

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
732: Kelk-----	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: frost action low strength shrink-swell	Slight
Kelk-----	Moderate: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding low strength	Moderate: flooding
733: Kelk-----	Moderate: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding low strength	Moderate: flooding
Enko-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
734: Kelk-----	Moderate: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding low strength	Moderate: flooding
736: Kelk-----	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Slight
Kortty-----	Slight	Moderate: shrink-swell	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Slight
740: Gowjai-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope
750: Snapp-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Severe: excess sodium
Oxcorel-----	Moderate: too clayey	Slight	Slight	Moderate: slope	Slight	Severe: excess sodium
751: Snapp-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Severe: excess sodium
Sodhouse-----	Severe: cemented pan cutbanks cave	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
752: Snapp-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Severe: excess sodium

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Orovada-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
753: Snapp-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Severe: excess sodium
Dugchip-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell	Severe: low strength	Severe: excess sodium
Connel-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: droughty
754: Snapp-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: frost action slope	Severe: excess sodium
Puett-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones depth to rock
755: Snapp-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Severe: excess sodium
Connel-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Moderate: droughty
756: Snapp-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Severe: excess sodium
Adelaide-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: low strength	Severe: cemented pan
McConnel-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
760: Piline-----	Severe: wetness cutbanks cave	Severe: shrink-swell wetness	Severe: shrink-swell wetness	Severe: shrink-swell wetness	Severe: low strength shrink-swell wetness	Severe: wetness
Piline-----	Severe: ponding cutbanks cave	Severe: shrink-swell ponding	Severe: shrink-swell ponding	Severe: shrink-swell ponding	Severe: low strength shrink-swell ponding	Severe: ponding
761: Piline-----	Severe: ponding cutbanks cave	Severe: shrink-swell ponding	Severe: shrink-swell ponding	Severe: shrink-swell ponding	Severe: low strength shrink-swell ponding	Severe: too clayey ponding

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
772: Broyles-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Slight
Orovada-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
773: Broyles-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Severe: excess salt
774: Broyles-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
775: Broyles-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
Bubus-----	Slight	Slight	Slight	Slight	Slight	Moderate: excess salt
Goldrun-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: excess salt droughty
780: Dacker-----	Severe: cemented pan	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell	Severe: low strength	Moderate: cemented pan
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
781: Dacker-----	Severe: cemented pan	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: low strength	Moderate: cemented pan
Bilbo-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
782: Dacker-----	Severe: cemented pan	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell	Severe: low strength	Moderate: cemented pan
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Snowmore-----	Severe: cemented pan slope depth to rock	Severe: slope	Severe: cemented pan slope depth to rock	Severe: slope	Severe: low strength slope	Severe: slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
790: Rio King-----	Moderate: wetness	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Slight
791: Rio King-----	Moderate: wetness	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: excess salt
800: Udelope-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock
Bregar-----	Severe: depth to rock	Severe: large stones small stones depth to rock				
801: Udelope-----	Severe: slope depth to rock	Severe: slope depth to rock				
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
810: Batan-----	Moderate: too clayey	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Severe: excess salt
Goldrun-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
811: Batan-----	Moderate: too clayey	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Severe: excess salt
Batan-----	Moderate: too clayey	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Moderate: excess salt
813: Batan-----	Moderate: too clayey	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Severe: excess salt
815: Batan-----	Moderate: too clayey	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Severe: excess salt
Prideen-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: frost action low strength	Severe: excess salt

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Wendane-----	Moderate: flooding wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding frost action	Severe: excess sodium excess salt
818: Batan-----	Moderate: too clayey	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Moderate: excess salt
Bubus-----	Slight	Slight	Slight	Slight	Slight	Moderate: excess salt
Goldrun-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
823: Whirlo-----	Slight	Slight	Slight	Moderate: slope	Slight	Slight
Orovada-----	Slight	Slight	Slight	Moderate: slope	Moderate: frost action	Slight
Snapp-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Severe: excess sodium
825: Whirlo-----	Slight	Slight	Slight	Moderate: slope	Slight	Moderate: small stones droughty
Oxcorel-----	Moderate: too clayey	Slight	Slight	Moderate: slope	Slight	Severe: excess sodium
Weso-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
831: Boton-----	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Slight
Playas-----	Severe: ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: low strength shrink-swell ponding	Severe: excess salt ponding droughty
833: Boton-----	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Slight
Isolde-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: excess salt droughty
Boton-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Severe: low strength	Slight
834: Boton-----	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Slight

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Davey-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
840: Dugchip-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: low strength	Severe: excess sodium
Flue-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess sodium
Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan low strength	Severe: cemented pan
842: Dugchip-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: low strength	Severe: excess sodium
Kelk-----	Moderate: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding low strength	Moderate: flooding
844: Dugchip-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: low strength	Severe: excess sodium
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
845: Dugchip-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell	Severe: low strength	Severe: excess sodium excess salt
Needle Peak-----	Moderate: wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action low strength	Moderate: excess salt
860: Goosel-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: depth to rock
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones small stones depth to rock
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Bregar-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: large stones small stones depth to rock
882: Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
883: Cleavage-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: small stones depth to rock
Tusel-----	Moderate: large stones slope depth to rock	Moderate: large stones shrink-swell slope	Moderate: shrink-swell slope depth to rock	Severe: slope	Moderate: frost action shrink-swell slope	Severe: large stones
Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
884: Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: large stones slope
885: Cleavage-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: large stones small stones depth to rock
Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
Reluctan-----	Severe: depth to rock	Moderate: shrink-swell slope depth to rock	Severe: depth to rock	Severe: slope	Moderate: low strength shrink-swell depth to rock	Moderate: large stones slope small stones

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
886: Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
Bullump-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
891: Softscrabble---	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
Harcany-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
892: Softscrabble---	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Cleavage-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
900: Roca-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope
Bregar-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: large stones small stones depth to rock
Linrose-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
901: Roca-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope
Reluctan-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
902: Roca-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Alyan-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
Quomus-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
903: Roca-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope
Walti-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: large stones slope
Reluctan-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope small stones
907: Roca-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones
Climine-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope small stones
909: Roca-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope
Nomara-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
911: Barnard-----	Severe: cemented pan	Severe: shrink-swell	Severe: cemented pan	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: cemented pan slope droughty
Barnard-----	Severe: cemented pan slope	Severe: shrink-swell slope	Severe: cemented pan slope	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
Devada-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell slope depth to rock	Severe: large stones slope small stones

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Alyan-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: shrink-swell	Moderate: large stones small stones droughty
930: Tenabo-----	Severe: cemented pan cutbanks cave	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Severe: excess sodium cemented pan large stones
Oxcorel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: excess sodium slope
940: Soughe-----	Severe: slope depth to rock	Severe: large stones slope depth to rock				
Soughe-----	Severe: slope depth to rock	Severe: large stones slope depth to rock				
941: Soughe-----	Severe: slope depth to rock	Severe: large stones slope depth to rock				
942: Soughe-----	Severe: slope depth to rock	Severe: large stones slope depth to rock				
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones slope depth to rock
943: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock				
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Soughe-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: large stones depth to rock
944: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
946: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope depth to rock
Rubble Land----	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones small stones droughty
947: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
954: Puffer-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
Xine-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
955: Puffer-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
960: Zevadez-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
Wieland-----	Slight	Moderate: shrink-swell	Slight	Moderate: shrink-swell	Moderate: frost action shrink-swell	Slight
Kelk-----	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Slight
962: Zevadez-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: frost action slope	Moderate: slope
Vanwyper-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: low strength slope	Severe: slope
963: Zevadez-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Moderate: small stones
McConnel-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: small stones droughty
964: Zevadez-----	Severe: cutbanks cave	Slight	Slight	Slight	Moderate: frost action	Slight
970: Gosumi-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: large stones slope small stones
Walti-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: large stones
980: Snowmore-----	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: low strength	Severe: large stones
Snowmore-----	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: low strength	Moderate: large stones depth to rock
981: Snowmore-----	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: low strength	Moderate: large stones depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Zevadez-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
Snowmore-----	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: low strength	Severe: large stones
983: Snowmore-----	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: cemented pan depth to rock	Moderate: shrink-swell slope depth to rock	Severe: low strength	Moderate: large stones depth to rock
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones small stones depth to rock
984: Snowmore-----	Severe: cemented pan depth to rock	Moderate: cemented pan shrink-swell depth to rock	Severe: cemented pan depth to rock	Moderate: shrink-swell slope depth to rock	Severe: low strength	Moderate: large stones depth to rock
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
990: Playas-----	Severe: ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: low strength shrink-swell ponding	Severe: excess salt ponding droughty
994: Dune Land-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope droughty
995: Dune Land-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope droughty
Goldrun-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
Davey-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1020: Wholan-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Slight
1023: Wholan-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Slight
Bliss-----	Severe: cemented pan	Moderate: cemented pan	Severe: cemented pan	Moderate: cemented pan slope	Moderate: frost action cemented pan	Moderate: cemented pan
Enko-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
1025: Wholan-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Slight
1030: Bullump-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope small stones
Westbutte-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope	Severe: slope
Harcany-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1031: Bullump-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
1050: Argenta-----	Moderate: wetness	Slight	Moderate: wetness	Slight	Severe: frost action	Severe: excess sodium excess salt
1051: Argenta-----	Moderate: wetness	Slight	Moderate: wetness	Slight	Severe: frost action	Severe: excess sodium excess salt
Preble-----	Severe: cutbanks cave	Slight	Moderate: wetness	Slight	Moderate: frost action	Severe: excess salt

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1052: Argenta-----	Moderate: wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action	Severe: excess sodium excess salt
Preble-----	Severe: cutbanks cave	Slight	Moderate: wetness	Slight	Moderate: frost action	Severe: excess salt
1055: Argenta-----	Moderate: flooding wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action	Severe: excess sodium excess salt
1060: Paranat-----	Moderate: flooding wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding frost action low strength	Moderate: excess salt flooding
1061: Paranat-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Moderate: flooding wetness
1064: Paranat-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Moderate: flooding wetness
Paranat-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Severe: excess salt
1066: Paranat-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Moderate: flooding wetness
1067: Paranat-----	Severe: wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Severe: flooding frost action low strength	Severe: excess salt
1072: Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Laped-----	Severe: cemented pan depth to rock	Severe: cemented pan	Severe: cemented pan depth to rock	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Rubble Land-----	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones slope	Severe: large stones small stones droughty
1075: Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1077: Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope depth to rock
1078: Hoot-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: small stones depth to rock
Genaw-----	Severe: depth to rock	Moderate: slope depth to rock	Severe: depth to rock	Severe: slope	Moderate: frost action slope depth to rock	Severe: depth to rock
1090: Soolake-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: excess salt droughty
Argenta-----	Moderate: wetness	Slight	Moderate: wetness	Slight	Severe: frost action	Severe: excess sodium excess salt
1100: Wendane-----	Moderate: flooding wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding frost action	Severe: excess sodium excess salt
1101: Wendane-----	Moderate: wetness	Severe: flooding	Severe: flooding	Severe: flooding	Severe: frost action	Severe: excess sodium excess salt

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1150: Cotant-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: large stones slope depth to rock
Say-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Cotant-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: depth to rock
1151: Cotant-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope depth to rock
Say-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Gol-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope depth to rock
1160: Hawsley-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
1161: Hawsley-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Isolde-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
1162: Hawsley-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: droughty
Davey-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Mazuma-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
1167: Hawsley-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
1168: Hawsley-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Slight	Moderate: droughty

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Davey-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
Essal-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
1169: Hawsley-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1170: Hunnton-----	Severe: cemented pan	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: cemented pan large stones slope
Bliss-----	Severe: cemented pan	Moderate: cemented pan slope	Severe: cemented pan	Severe: slope	Moderate: frost action cemented pan slope	Moderate: cemented pan large stones slope
Trunk-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
1171: Hunnton-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: cemented pan
Dugchip-----	Severe: cemented pan cutbanks cave	Moderate: cemented pan shrink-swell	Severe: cemented pan	Moderate: cemented pan shrink-swell	Severe: low strength	Severe: excess sodium
Orovada-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
1172: Flue-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Severe: excess sodium
Hunnton-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: cemented pan slope
McConnel-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Moderate: small stones droughty

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1173: Hunnton-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: cemented pan
1174: Hunnton-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: cemented pan
Zevadez-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
Enko-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
1175: Hunnton-----	Severe: cemented pan	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: cemented pan large stones slope
Goosel-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell	Severe: large stones small stones
Connel-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: small stones droughty
1176: Hunnton-----	Severe: cemented pan	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: cemented pan small stones droughty
Hunnton-----	Severe: cemented pan	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: cemented pan large stones slope
Dacker-----	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: cemented pan	Severe: slope	Severe: low strength	Moderate: cemented pan slope small stones
1180: Roccoonda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1181: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones slope depth to rock
1184: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1185: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
Quomus-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Atlow-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope depth to rock
1186: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope depth to rock
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell	Severe: cemented pan
1187: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1202: Erakatak-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
Bullump-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope small stones
1210: Cresal-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
Playas-----	Severe: ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: low strength shrink-swell ponding	Severe: excess salt ponding droughty
1211: Cresal-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
1212: Cresal-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
Tresed-----	Severe: cutbanks cave	Severe: shrink-swell	Slight	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: excess salt
Playas-----	Severe: ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: flooding shrink-swell ponding	Severe: low strength shrink-swell ponding	Severe: excess salt ponding droughty
1221: Alyan-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: shrink-swell	Severe: small stones
Bilbo-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope small stones
1230: Knott-----	Severe: cemented pan cutbanks cave	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: excess sodium cemented pan
Sodhouse-----	Severe: cemented pan cutbanks cave	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
Wholan-----	Slight	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding	Slight

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1240: Laped-----	Severe: cemented pan depth to rock	Severe: cemented pan	Severe: cemented pan depth to rock	Severe: cemented pan slope	Severe: cemented pan	Severe: cemented pan
1241: Laped-----	Severe: cemented pan depth to rock	Severe: cemented pan	Severe: cemented pan depth to rock	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
Boger-----	Severe: cemented pan depth to rock	Severe: depth to rock				
1255: Dutchjohn-----	Severe: cutbanks cave	Moderate: shrink-swell slope	Moderate: slope	Severe: slope	Moderate: frost action shrink-swell slope	Moderate: slope
Cleavage-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock
Bregar-----	Severe: depth to rock	Severe: small stones depth to rock				
1260: Weso-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Slight
Trocken-----	Severe: cutbanks cave	Moderate: large stones	Moderate: large stones	Moderate: large stones	Moderate: large stones	Moderate: large stones small stones droughty
1271: Gol-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones depth to rock
Say-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1285: Igdell-----	Severe: cemented pan	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: cemented pan small stones
Gochea-----	Moderate: slope	Moderate: shrink-swell slope	Moderate: slope	Severe: slope	Moderate: frost action shrink-swell slope	Moderate: slope small stones droughty

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1291: Tresed-----	Severe: cutbanks cave	Severe: shrink-swell	Slight	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: excess salt
Isolde-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: excess salt slope droughty
1292: Tresed-----	Severe: cutbanks cave	Severe: shrink-swell	Slight	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: excess salt
1310: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan low strength	Severe: cemented pan
Tenabo-----	Severe: cemented pan cutbanks cave	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: excess sodium cemented pan
1312: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan low strength	Severe: cemented pan
Dacker-----	Severe: cemented pan	Moderate: cemented pan shrink-swell slope	Severe: cemented pan	Severe: slope	Severe: low strength	Moderate: cemented pan slope
Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan low strength	Severe: cemented pan
1313: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan low strength	Severe: cemented pan
Sodhouse-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell	Severe: cemented pan
1314: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan low strength	Severe: cemented pan
Zevadez-----	Severe: cutbanks cave	Slight	Slight	Moderate: slope	Moderate: frost action	Moderate: small stones

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1315: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan low strength	Severe: cemented pan
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Severe: cemented pan
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope depth to rock
1321: Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
Vanwyper-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: low strength slope	Severe: slope
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell depth to rock	Severe: cemented pan shrink-swell slope	Severe: cemented pan shrink-swell	Severe: cemented pan large stones small stones
1322: Vanwyper-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: low strength slope	Severe: slope
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones small stones depth to rock
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
1324: Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
Gowjai-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1327: Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Gowjai-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Soughe-----	Severe: slope depth to rock	Severe: slope small stones depth to rock				
1331: Siscab-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope depth to rock
Aycab-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Ola-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones
1332: Siscab-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope depth to rock
Ola-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones
1333: Siscab-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope depth to rock
Say-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1334: Siscab-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope depth to rock
Eaglerock-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope small stones

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1335: Siscab-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope depth to rock
Westbutte-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope	Severe: slope
1341: Longcreek-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: low strength slope depth to rock	Severe: slope depth to rock
Menbo-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: slope small stones
1342: Longcreek-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: low strength slope depth to rock	Severe: slope depth to rock
1344: Longcreek-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: low strength slope depth to rock	Severe: slope depth to rock
Softscrabble----	Severe: large stones slope	Severe: large stones slope small stones				
Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
1345: Longcreek-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: low strength slope depth to rock	Severe: slope depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Zymans-----	Severe: slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
1360: Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell depth to rock	Severe: cemented pan shrink-swell slope	Severe: cemented pan shrink-swell	Severe: cemented pan
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell depth to rock	Severe: cemented pan shrink-swell slope	Severe: cemented pan shrink-swell	Severe: cemented pan
1362: Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell	Severe: cemented pan
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan shrink-swell	Severe: cemented pan shrink-swell depth to rock	Severe: cemented pan shrink-swell slope	Severe: cemented pan shrink-swell	Severe: cemented pan
Hunnton-----	Severe: cemented pan cutbanks cave	Severe: shrink-swell	Severe: cemented pan	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: cemented pan
1371: Devada-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: small stones depth to rock
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope
1373: Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Zymans-----	Moderate: too clayey	Severe: shrink-swell	Severe: shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: small stones
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: small stones depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1380: Genaw-----	Severe: depth to rock	Moderate: slope depth to rock	Severe: depth to rock	Severe: slope	Moderate: frost action slope depth to rock	Severe: depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
Rocconda-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock
1381: Genaw-----	Severe: depth to rock	Moderate: depth to rock	Severe: depth to rock	Moderate: slope depth to rock	Moderate: frost action depth to rock	Severe: depth to rock
Trunk-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: slope depth to rock
Devada-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
1382: Genaw-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope depth to rock
Puett-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope depth to rock
1390: Mulhop-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope depth to rock
Xine-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1400: Madeline-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
Anawalt-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: small stones depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Vanwyper-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: low strength slope	Severe: slope
1410: Say-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Tosp-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Aycab-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1411: Say-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Aycab-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1420: Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: large stones slope small stones
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
1421: Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Davey-----	Severe: cutbanks cave	Moderate: slope	Moderate: slope	Severe: slope	Moderate: slope	Moderate: slope droughty
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
1423: Panlee-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Vanwyper-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones low strength slope	Severe: large stones slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Carstump-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
1431: Hunnton-----	Severe: cemented pan	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell	Severe: low strength shrink-swell	Moderate: cemented pan small stones droughty
Rodock-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: small stones droughty
1432: Rodock-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: droughty
Connel-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: droughty
1433: Rodock-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: small stones droughty
1436: Rodock-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: droughty
1437: Rodock-----	Severe: cutbanks cave	Severe: flooding	Severe: flooding	Severe: flooding	Moderate: flooding frost action	Moderate: droughty
1450: Wiskan-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones
Climine-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1460: Ninemile-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Anawalt-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell	Severe: small stones depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Reluctan-----	Severe: depth to rock	Moderate: shrink-swell slope depth to rock	Severe: depth to rock	Severe: slope	Moderate: low strength shrink-swell depth to rock	Moderate: large stones slope small stones
1461: Ninemile-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: small stones depth to rock
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Alyan-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: shrink-swell	Moderate: slope small stones depth to rock
1462: Ninemile-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Anawalt-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: small stones depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
1464: Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope
1465: Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1466: Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
Bullump-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1467: Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones slope depth to rock
Udelope-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1468: Ninemile-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones depth to rock
Softscrabble----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
1469: Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: large stones slope depth to rock
Softscrabble----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Sumine-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: large stones slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1470: Zymans-----	Severe: slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: large stones slope small stones
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock				
Devada-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
1471: Zymans-----	Severe: slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
Burrita-----	Severe: large stones slope depth to rock	Severe: large stones slope small stones				
Soughe-----	Severe: slope depth to rock	Severe: slope small stones depth to rock				
1472: Zymans-----	Severe: slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: low strength shrink-swell slope	Severe: slope
Zymans-----	Moderate: slope too clayey	Severe: shrink-swell	Severe: shrink-swell	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: large stones slope small stones
Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock				
1473: Zymans-----	Moderate: slope too clayey	Severe: shrink-swell	Severe: shrink-swell	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: slope small stones
Genaw-----	Severe: depth to rock	Moderate: depth to rock	Severe: depth to rock	Moderate: depth to rock	Moderate: frost action depth to rock	Severe: depth to rock
1480: Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope small stones

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1481: Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope small stones
1482: Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Layview-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope small stones depth to rock
1483: Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Spinlin-----	Severe: slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: large stones slope
1484: Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Ninemile-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope depth to rock
Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
1500: Eaglerock-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope small stones
Acrelane-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope depth to rock

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1520: Croesus-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones droughty
1521: Croesus-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones droughty
1522: Croesus-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones droughty
Harcany-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
1523: Croesus-----	Severe: slope depth to rock	Severe: slope	Severe: slope depth to rock	Severe: slope	Severe: slope	Severe: slope small stones droughty
Udelope-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock
Layview-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: small stones depth to rock
1524: Croesus-----	Severe: depth to rock	Moderate: large stones slope depth to rock	Severe: depth to rock	Severe: slope	Moderate: frost action slope depth to rock	Severe: small stones droughty
Spinlin-----	Moderate: large stones too clayey depth to rock	Severe: shrink-swell	Severe: shrink-swell	Severe: shrink-swell slope	Severe: shrink-swell	Moderate: large stones slope depth to rock
1530: Westbutte-----	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: large stones slope	Severe: large stones slope	Severe: slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
1540: Locane-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: large stones slope small stones
1551: Charwell-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: large stones small stones droughty
Anawalt-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
1560: Menbo-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: slope small stones
1561: Menbo-----	Severe: depth to rock	Severe: shrink-swell	Severe: shrink-swell depth to rock	Severe: shrink-swell slope	Severe: shrink-swell	Severe: large stones
Madeline-----	Severe: depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: depth to rock
Tusel-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: large stones slope
1562: Devada-----	Severe: slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope depth to rock	Severe: low strength shrink-swell depth to rock	Severe: slope small stones depth to rock
Menbo-----	Severe: slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope depth to rock	Severe: shrink-swell slope	Severe: shrink-swell slope	Severe: large stones slope

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Longcreek-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: low strength slope depth to rock	Severe: slope depth to rock
1570: Delvada-----	Severe: wetness	Severe: flooding shrink-swell wetness	Severe: flooding shrink-swell wetness	Severe: flooding shrink-swell wetness	Severe: low strength shrink-swell wetness	Severe: too clayey wetness
1572: Delvada-----	Moderate: too clayey wetness	Severe: flooding shrink-swell	Severe: flooding shrink-swell	Severe: flooding shrink-swell	Severe: frost action low strength shrink-swell	Severe: excess salt
1579: Delvada-----	Severe: wetness	Severe: flooding shrink-swell wetness	Severe: flooding shrink-swell wetness	Severe: flooding shrink-swell wetness	Severe: low strength shrink-swell wetness	Severe: wetness
1580: Isolde-----	Severe: slope cutbanks cave	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Essal-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Moderate: excess salt
Essal-----	Severe: cutbanks cave	Slight	Slight	Slight	Slight	Severe: excess salt
1594: Boton-----	Slight	Moderate: shrink-swell	Moderate: shrink-swell	Moderate: shrink-swell	Severe: low strength	Slight
Boton-----	Moderate: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding low strength	Severe: excess salt
1600: Clurde-----	Slight	Slight	Slight	Slight	Moderate: frost action	Slight
1610: Gochea-----	Slight	Moderate: shrink-swell	Slight	Moderate: shrink-swell slope	Moderate: frost action shrink-swell	Moderate: small stones droughty
Gochea-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope
Igdell-----	Severe: cemented pan	Severe: shrink-swell	Severe: cemented pan shrink-swell	Severe: shrink-swell slope	Severe: low strength shrink-swell	Moderate: cemented pan slope small stones

TABLE 9.--SANITARY FACILITIES

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
100: Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Alyan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
101: Anawalt-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Alyan-----	Severe: percs slowly depth to rock	Severe: depth to rock	Severe: depth to rock	Slight	Poor: hard to pack small stones depth to rock
102: Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Tusk-----	Severe: percs slowly slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope small stones
106: Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Ninemile-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Alyan-----	Severe: percs slowly depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
107: Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Tusk-----	Severe: percs slowly slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope small stones
108: Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Alyan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
110: Adelaide-----	Severe: cemented pan percs slowly poor filter	Severe: cemented pan seepage	Moderate: cemented pan too sandy	Slight	Poor: cemented pan seepage small stones
120: Bregar-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Tusk-----	Severe: percs slowly slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope small stones
Bregar-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope depth to rock
Cumulic Haplaquolls----	---	---	---	---	---

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
122: Bregar-----	Severe: depth to rock	Severe: large stones slope depth to rock	Severe: large stones depth to rock	Moderate: slope	Poor: small stones depth to rock
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Cleavage-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
131: Benin-----	Severe: percs slowly	Slight	Slight	Slight	Poor: hard to pack
133: Benin-----	Severe: percs slowly	Slight	Slight	Slight	Poor: hard to pack
141: Beoska-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
Bluewing-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
143: Beoska-----	Severe: percs slowly	Severe: seepage	Slight	Slight	Poor: small stones
Broyles-----	Slight	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
144: Beoska-----	Severe: percs slowly	Severe: seepage	Slight	Slight	Poor: small stones
Dun Glen-----	Moderate: flooding percs slowly	Moderate: seepage	Moderate: flooding	Moderate: flooding	Good
145: Beoska-----	Severe: percs slowly	Severe: seepage	Slight	Slight	Poor: small stones
Beoska-----	Severe: percs slowly	Severe: seepage slope	Moderate: slope	Moderate: slope	Poor: small stones
Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
151: Blackhawk-----	Severe: cemented pan poor filter	Severe: cemented pan seepage	Severe: excess salt too sandy	Slight	Poor: cemented pan too sandy
152: Blackhawk-----	Severe: cemented pan poor filter	Severe: cemented pan seepage	Severe: excess salt too sandy	Slight	Poor: cemented pan too sandy
154: Blackhawk-----	Severe: cemented pan poor filter	Severe: cemented pan seepage	Severe: excess salt too sandy	Slight	Poor: cemented pan too sandy
Golconda-----	Severe: cemented pan	Severe: cemented pan	Severe: excess salt	Slight	Poor: cemented pan
Orovada-----	Moderate: flooding percs slowly	Moderate: seepage	Moderate: flooding	Moderate: flooding	Good
155: Blackhawk-----	Severe: cemented pan poor filter	Severe: cemented pan seepage	Severe: excess salt too sandy	Slight	Poor: cemented pan too sandy
156: Blackhawk-----	Severe: cemented pan poor filter	Severe: cemented pan seepage	Severe: excess salt too sandy	Slight	Poor: cemented pan too sandy
Clurde-----	Slight	Severe: seepage	Slight	Slight	Fair: small stones
157: Blackhawk-----	Severe: cemented pan poor filter	Severe: cemented pan seepage	Severe: excess salt too sandy	Slight	Poor: cemented pan too sandy
Broyles-----	Slight	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
158: Blackhawk-----	Severe: cemented pan poor filter	Severe: cemented pan seepage	Severe: excess salt too sandy	Slight	Poor: cemented pan seepage too sandy
Trocken-----	Moderate: large stones percs slowly	Severe: large stones	Severe: large stones	Slight	Poor: small stones
160: Bliss-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
161: Bliss-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Chiara-----	Severe: cemented pan slope	Severe: cemented pan slope	Severe: cemented pan slope	Severe: slope	Poor: cemented pan slope
163: Bliss-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Shabliss-----	Severe: cemented pan	Severe: cemented pan seepage	Moderate: cemented pan	Slight	Poor: cemented pan
165: Bliss-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Dugchip-----	Severe: cemented pan percs slowly	Severe: cemented pan	Severe: cemented pan too sandy	Slight	Poor: cemented pan seepage too sandy
Orovada-----	Moderate: flooding percs slowly	Moderate: seepage slope	Moderate: flooding	Moderate: flooding	Good
166: Bliss-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Orovada-----	Moderate: flooding percs slowly	Moderate: seepage slope	Moderate: flooding	Moderate: flooding	Good
Shabliss-----	Severe: cemented pan	Severe: cemented pan seepage	Moderate: cemented pan	Slight	Poor: cemented pan
167: Bliss-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Blackhawk-----	Severe: cemented pan poor filter	Severe: cemented pan seepage	Severe: excess salt too sandy	Slight	Poor: cemented pan too sandy
Adelaide-----	Severe: cemented pan percs slowly	Severe: cemented pan	Moderate: cemented pan	Slight	Poor: cemented pan
169: Bliss-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
171: Bubus-----	Moderate: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
174: Bubus-----	Moderate: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
Needle Peak-----	Severe: percs slowly	Moderate: wetness	Severe: wetness	Moderate: flooding wetness	Fair: too clayey
178: Bubus-----	Moderate: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
Preble-----	Severe: percs slowly wetness	Severe: seepage	Severe: seepage wetness	Severe: wetness	Fair: thin layer wetness
184: Chiara-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan
McConnel-----	Severe: poor filter	Severe: seepage	Severe: excess salt too sandy	Slight	Poor: seepage small stones too sandy
185: Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Dacker-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
McConnel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
186: Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Hunnton-----	Severe: cemented pan	Severe: cemented pan seepage slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan seepage small stones
187: Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Boger-----	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: cemented pan depth to rock	Moderate: slope	Poor: small stones depth to rock
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
188: Chiara-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
190: Beecox-----	Moderate: percs slowly	Severe: seepage	Slight	Slight	Poor: thin layer
Oxcoral-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
191: Beecox-----	Moderate: percs slowly	Severe: seepage	Slight	Slight	Poor: thin layer
Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
192: Beecox-----	Moderate: percs slowly	Severe: seepage	Slight	Slight	Poor: thin layer
Bliss-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan
200: Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
201: Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
202: Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
203: Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Goldrun-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: too sandy
204: Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Blackhawk-----	Severe: cemented pan poor filter	Severe: cemented pan seepage	Severe: excess salt too sandy	Slight	Poor: cemented pan too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
205: Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Hawsley-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage too sandy
206: Broyles-----	Slight	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Dun Glen-----	Moderate: flooding percs slowly	Moderate: seepage	Moderate: flooding	Moderate: flooding	Good
207: Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Pumper-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
208: Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
210: Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
211: Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
Golconda-----	Severe: cemented pan	Severe: cemented pan	Severe: excess salt	Slight	Poor: cemented pan
Snapp-----	Severe: percs slowly	Severe: slope	Moderate: slope too sandy	Moderate: slope	Poor: seepage small stones
212: Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan hard to pack

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
213: Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan hard to pack
Puett-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
215: Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
Snapp-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too sandy	Slight	Poor: seepage small stones
Snapp-----	Severe: percs slowly poor filter	Severe: seepage slope	Moderate: slope too sandy	Moderate: slope	Poor: seepage small stones
216: Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
217: Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
218: Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
Rodock-----	Severe: percs slowly	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
Snapp-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too sandy	Slight	Poor: seepage small stones
222: Bloor-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt wetness	Slight	Good
231: Dun Glen-----	Moderate: flooding percs slowly	Moderate: seepage slope	Moderate: flooding	Moderate: flooding	Good

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
233: Dun Glen-----	Moderate: flooding percs slowly	Moderate: seepage	Moderate: flooding	Moderate: flooding	Good
241: Sojur-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
250: Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Goldrun-----	Severe: slope poor filter	Severe: seepage slope	Severe: slope too sandy	Severe: slope	Poor: slope too sandy
251: Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
252: Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
253: Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
McConnel-----	Severe: flooding poor filter	Severe: flooding seepage	Severe: flooding too sandy	Severe: flooding	Poor: seepage small stones too sandy
254: Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
Zevadez-----	Severe: percs slowly	Severe: slope	Moderate: slope	Moderate: slope	Fair: slope
255: Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
McConnel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
257: Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
258: Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
262: Golconda-----	Severe: cemented pan	Severe: cemented pan	Severe: excess salt	Slight	Poor: cemented pan
Snapp-----	Severe: percs slowly	Severe: slope	Moderate: slope too sandy	Moderate: slope	Poor: seepage small stones
263: Bliss-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan
Golconda-----	Severe: cemented pan	Severe: cemented pan slope	Severe: excess salt	Moderate: slope	Poor: cemented pan
Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
270: Goldrun-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: too sandy
271: Goldrun-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
272: Goldrun-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
274: Goldrun-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: too sandy
Benin-----	Severe: percs slowly	Slight	Slight	Slight	Poor: hard to pack

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
275: Goldrun-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: too sandy
Preble-----	Severe: percs slowly wetness	Severe: seepage	Severe: seepage wetness	Severe: wetness	Fair: thin layer wetness
281: Golsum-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Spinlin-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: small stones too clayey depth to rock
290: Havingdon-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
292: Havingdon-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Gowjai-----	Severe: slope	Severe: seepage slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Walti-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope depth to rock
302: Essal-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Isolde-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: seepage too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Playas-----	Severe: flooding percs slowly ponding	Severe: flooding ponding	Severe: flooding too clayey ponding	Severe: flooding ponding	Poor: hard to pack too clayey ponding
305: Essal-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Isolds-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: seepage too sandy
Hawsley-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage too sandy
307: Essal-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Isolds-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: seepage too sandy
Tresed-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt too sandy	Slight	Fair: too sandy
311: Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Croesus-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: seepage small stones depth to rock
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
Cumulic Haplaquolls----	---	---	---	---	---
312: Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
321: Humboldt-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding too clayey wetness	Severe: flooding wetness	Poor: hard to pack too clayey wetness
322: Humboldt-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding too clayey wetness	Severe: flooding wetness	Poor: hard to pack too clayey wetness
325: Humboldt-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding too clayey wetness	Severe: flooding wetness	Poor: hard to pack too clayey wetness
Wendane-----	Severe: percs slowly wetness	Severe: wetness	Severe: excess sodium excess salt wetness	Severe: wetness	Poor: excess sodium excess salt
330: McConnel-----	Severe: poor filter	Severe: seepage	Severe: excess salt too sandy	Slight	Poor: seepage small stones too sandy
331: McConnel-----	Severe: poor filter	Severe: seepage	Severe: excess salt too sandy	Slight	Poor: seepage small stones too sandy
333: McConnel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
Shabliss-----	Severe: cemented pan	Severe: cemented pan seepage slope	Moderate: cemented pan slope	Moderate: slope	Poor: cemented pan
335: McConnel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
338: McConnel-----	Severe: poor filter	Severe: seepage	Severe: excess salt too sandy	Slight	Poor: seepage small stones too sandy
Pumper-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Whirlo-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
340: Boger-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
342: Boger-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock
Goosel-----	Severe: cemented pan depth to rock	Severe: cemented pan seepage depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
343: Boger-----	Severe: cemented pan depth to rock	Severe: cemented pan large stones depth to rock	Severe: cemented pan large stones depth to rock	Slight	Poor: small stones depth to rock
351: Goldrun-----	Severe: poor filter	Severe: seepage slope	Severe: excess salt too sandy	Moderate: slope	Poor: too sandy
Prideen-----	Severe: percs slowly wetness	Severe: wetness	Severe: excess salt wetness	Severe: wetness	Poor: excess salt
Playas-----	Severe: flooding percs slowly ponding	Severe: flooding ponding	Severe: flooding too clayey ponding	Severe: flooding ponding	Poor: hard to pack too clayey ponding
352: Goldrun-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: too sandy
Kleck-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Slight	Poor: depth to rock
Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
360: Needle Peak-----	Severe: percs slowly	Moderate: wetness	Severe: wetness	Moderate: flooding wetness	Fair: too clayey
363: Needle Peak-----	Severe: percs slowly	Moderate: wetness	Severe: wetness	Moderate: flooding wetness	Fair: too clayey
Batan-----	Severe: percs slowly	Slight	Severe: excess salt	Slight	Good
Goldrun-----	Severe: slope poor filter	Severe: seepage slope	Severe: slope too sandy	Severe: slope	Poor: slope too sandy
370: Wisland-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Fair: small stones
Wisland-----	Severe: percs slowly slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
380: Bullump-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
381: Bullump-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
391: Aycab-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Poor: slope depth to rock
Rock Outcrop----	---	---	---	---	---
403: Orovada-----	Moderate: percs slowly	Moderate: seepage	Slight	Slight	Good

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
406: Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
407: Orovada-----	Moderate: percs slowly	Moderate: seepage	Slight	Slight	Good
409: Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
Goldrun-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
410: Bliss-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
411: Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
Dugchip-----	Severe: cemented pan percs slowly	Severe: cemented pan	Severe: cemented pan too sandy	Slight	Poor: cemented pan seepage too sandy
417: Orovada-----	Moderate: percs slowly	Moderate: seepage	Slight	Slight	Good
Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
420: Bubus-----	Moderate: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
431: Preble-----	Severe: percs slowly wetness	Severe: seepage	Severe: excess salt seepage wetness	Severe: wetness	Fair: thin layer wetness
432: Preble-----	Severe: percs slowly wetness	Severe: seepage	Severe: excess salt seepage wetness	Severe: wetness	Fair: thin layer wetness

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Goldrun-----	Severe: poor filter	Severe: seepage slope	Severe: excess salt too sandy	Moderate: slope	Poor: too sandy
Playas-----	Severe: flooding percs slowly ponding	Severe: flooding ponding	Severe: flooding too clayey ponding	Severe: flooding ponding	Poor: hard to pack too clayey ponding
435: Preble-----	Severe: percs slowly wetness	Severe: seepage	Severe: excess salt seepage wetness	Severe: wetness	Fair: thin layer wetness
436: Preble-----	Severe: percs slowly wetness	Severe: seepage	Severe: seepage wetness	Severe: wetness	Fair: thin layer wetness
Valmy-----	Slight	Severe: seepage	Slight	Slight	Fair: small stones thin layer
Valmy-----	Severe: flooding	Severe: flooding seepage	Severe: flooding	Severe: flooding	Fair: small stones
437: Preble-----	Severe: percs slowly wetness	Severe: seepage	Severe: excess salt seepage wetness	Severe: wetness	Fair: thin layer wetness
Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
438: Preble-----	Severe: percs slowly wetness	Severe: seepage	Severe: excess salt seepage wetness	Severe: wetness	Fair: thin layer wetness
Bubus-----	Moderate: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
440: Prideen-----	Severe: percs slowly wetness	Severe: wetness	Severe: excess salt wetness	Severe: wetness	Poor: excess salt
441: Prideen-----	Severe: percs slowly wetness	Severe: wetness	Severe: excess salt wetness	Severe: wetness	Poor: excess salt
452: Kingsriver-----	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Poor: wetness

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
453: Kingsriver-----	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: wetness
Kingsriver-----	---	---	---	---	---
Typic Fluvaquents----	---	---	---	---	---
460: Rad-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
461: Rad-----	Severe: percs slowly	Moderate: seepage	Slight	Slight	Good
462: Rad-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
470: Raglan-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
471: Raglan-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
474: Raglan-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
Kleck-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Slight	Poor: depth to rock
480: Rebel-----	Slight	Severe: seepage	Slight	Slight	Good
487: Rebel-----	Slight	Severe: seepage	Slight	Slight	Good
490: Rose Creek-----	Severe: flooding wetness	Severe: flooding seepage wetness	Severe: flooding seepage wetness	Severe: flooding seepage wetness	Poor: too sandy
Humboldt-----	---	---	---	---	---
491: Rose Creek-----	Moderate: flooding wetness	Severe: seepage	Severe: seepage too sandy wetness	Severe: seepage	Poor: excess salt too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
492: Rose Creek-----	Severe: flooding wetness	Severe: flooding seepage wetness	Severe: flooding seepage wetness	Severe: flooding seepage wetness	Poor: too sandy
Humboldt-----	---	---	---	---	---
501: Enko-----	Severe: percs slowly	Severe: seepage	Slight	Slight	Good
502: Enko-----	Severe: percs slowly	Severe: seepage	Slight	Slight	Good
Goldrun-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: too sandy
503: Enko-----	Severe: percs slowly	Moderate: seepage	Slight	Slight	Good
504: Enko-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
Shabliss-----	Severe: cemented pan	Severe: cemented pan seepage	Moderate: cemented pan	Slight	Poor: cemented pan
505: Enko-----	Severe: percs slowly	Severe: seepage	Slight	Slight	Fair: thin layer
507: Enko-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
Shabliss-----	Severe: cemented pan slope	Severe: cemented pan seepage slope	Severe: slope	Severe: slope	Poor: cemented pan slope
511: Mazuma-----	Slight	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Trocken-----	Moderate: large stones percs slowly	Moderate: large stones seepage slope	Severe: large stones	Slight	Poor: small stones

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
520: Lunder-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan hard to pack large stones
Devada-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
522: Lunder-----	Severe: cemented pan	Severe: cemented pan large stones	Severe: cemented pan large stones	Slight	Poor: cemented pan hard to pack large stones
Hunnton-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
530: Shabliss-----	Severe: cemented pan	Severe: cemented pan seepage slope	Moderate: cemented pan slope	Moderate: slope	Poor: cemented pan
532: Shabliss-----	Severe: cemented pan	Severe: cemented pan seepage	Moderate: cemented pan	Slight	Poor: cemented pan
Enko-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
Valmy-----	Slight	Severe: seepage	Slight	Slight	Fair: small stones thin layer
533: Shabliss-----	Severe: cemented pan	Severe: cemented pan seepage slope	Moderate: cemented pan slope	Moderate: slope	Poor: cemented pan
Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
534: Shabliss-----	Severe: cemented pan	Severe: cemented pan seepage	Moderate: cemented pan	Slight	Poor: cemented pan
Puett-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
536: Shabliss-----	Severe: cemented pan	Severe: cemented pan seepage	Moderate: cemented pan	Slight	Poor: cemented pan
Enko-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
Dugchip-----	Severe: cemented pan percs slowly	Severe: cemented pan	Severe: cemented pan too sandy	Slight	Poor: cemented pan seepage too sandy
537: Shabliss-----	Severe: cemented pan	Severe: cemented pan seepage slope	Moderate: cemented pan slope	Moderate: slope	Poor: cemented pan
Bliss-----	Severe: cemented pan slope	Severe: cemented pan slope	Severe: cemented pan slope	Severe: slope	Poor: cemented pan slope
Genaw-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
543: Pumper-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
544: Pumper-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
545: Dun Glen-----	Moderate: flooding percs slowly	Moderate: seepage	Moderate: flooding	Moderate: flooding	Good
Pumper-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
551: Ninemile-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Carstump-----	Severe: percs slowly depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: small stones depth to rock
552: Ninemile-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
553: Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Ninemile-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Tusk-----	Severe: percs slowly slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope small stones
555: Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Alyan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
557: Ninemile-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
558: Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
559: Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Devada-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Rock Outcrop---	---	---	---	---	---
Fluvaquentic Haplaquolls---	---	---	---	---	---
561: Sonoma-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: excess salt flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
Humboldt-----	---	---	---	---	---
562: Sonoma-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
Humboldt-----	---	---	---	---	---
563: Sonoma-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: excess salt flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
564: Sonoma-----	Severe: flooding percs slowly wetness	Severe: flooding	Severe: flooding wetness	Severe: flooding	Fair: too clayey

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
566: Sonoma-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: excess salt flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
Paranat-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: excess salt flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
567: Sonoma-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
Humboldt-----	---	---	---	---	---
573: Spinlin-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: small stones too clayey depth to rock
Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
Cumulic Haplaquolls----	---	---	---	---	---
574: Spinlin-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: small stones too clayey depth to rock
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
580: Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Softscrabble----	Severe: percs slowly slope	Severe: slope	Severe: large stones slope	Severe: slope	Poor: slope small stones
581: Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Gosumi-----	Severe: percs slowly slope	Severe: seepage slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Nomara-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
582: Sumine-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
583: Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Gosumi-----	Severe: percs slowly slope	Severe: seepage slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
584: Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
585: Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rock Outcrop----	---	---	---	---	---
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
586: Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rubble Land----	Severe: large stones slope poor filter	Severe: large stones seepage slope	Severe: seepage slope depth to rock	Severe: seepage slope	Poor: seepage slope small stones
Reluctan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Cumulic Haplaquolls----	---	---	---	---	---
587: Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Gosumi-----	Severe: percs slowly slope	Severe: seepage slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Cumulic Haplaquolls----	---	---	---	---	---
588: Sumine-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Cleavage-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Rubble Land-----	Severe: large stones slope poor filter	Severe: large stones seepage slope	Severe: seepage slope depth to rock	Severe: seepage slope	Poor: seepage slope small stones
589: Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
590: Trunk-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Madeline-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
592: Trunk-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Pocan-----	Severe: slope	Severe: slope	Severe: cemented pan slope depth to rock	Severe: slope	Poor: slope
593: Trunk-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
594: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Trunk-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Quomus-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
596: Trunk-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
597: Trunk-----	Severe: percs slowly depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
Burrita-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: small stones depth to rock
Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
600: Valmy-----	Slight	Severe: seepage	Slight	Slight	Fair: small stones thin layer
603: Valmy-----	Slight	Severe: seepage	Slight	Slight	Fair: small stones thin layer
Goldrun-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
604: Valmy-----	Slight	Severe: seepage	Slight	Slight	Fair: small stones thin layer
Bubus-----	Moderate: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Needle Peak-----	Severe: percs slowly	Moderate: wetness	Severe: wetness	Moderate: flooding wetness	Fair: too clayey
606: Valmy-----	Slight	Severe: seepage	Slight	Slight	Fair: small stones
611: Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
613: Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
Shabliss-----	Severe: cemented pan slope	Severe: cemented pan seepage slope	Severe: slope	Severe: slope	Poor: cemented pan slope
614: Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Poor: small stones
615: Weso-----	Moderate: percs slowly	Moderate: seepage	Slight	Slight	Good
617: Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
618: Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
Kelk-----	Severe: flooding percs slowly	Severe: flooding	Severe: flooding	Severe: flooding	Good
619: Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
Rebel-----	Slight	Severe: seepage	Slight	Slight	Good
620: Carstump-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Soughe-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
631: Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
633: Burrita-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: small stones depth to rock
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock
Clementine-----	---	---	---	---	---
634: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Devada-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Zymans-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope
636: Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rubble Land-----	Severe: large stones slope poor filter	Severe: large stones seepage slope	Severe: seepage slope depth to rock	Severe: seepage slope	Poor: seepage slope small stones
Clementine-----	Severe: percs slowly	Slight	Moderate: flooding too clayey	Moderate: flooding	Fair: too clayey

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
637: Burrita-----	Severe: depth to rock	Severe: large stones slope depth to rock	Severe: large stones depth to rock	Moderate: slope	Poor: small stones depth to rock
Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
638: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
640: Clementine-----	Severe: percs slowly	Slight	Moderate: flooding too clayey	Moderate: flooding	Fair: too clayey
641: Clementine-----	Severe: percs slowly	Slight	Moderate: flooding too clayey	Moderate: flooding	Fair: too clayey
Paranat-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
642: Clementine-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
Rose Creek-----	Moderate: flooding wetness	Severe: seepage	Severe: seepage too sandy wetness	Severe: seepage	Poor: too sandy
646: Clementine-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: too clayey wetness

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Paranat-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
651: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Atlow-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
652: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Havingdon-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Reluctan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
653: Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Havingdon-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
654: Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Panlee-----	Severe: slope	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones
Rock Outcrop---	---	---	---	---	---
655: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
657: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Snowmore-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: depth to rock
Rock Outcrop---	---	---	---	---	---
658: Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
660: Beoska-----	Severe: percs slowly	Severe: seepage	Slight	Slight	Poor: small stones
Oxcorel-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
Whirlo-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
661: Oxcorel-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
663: Oxcorel-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
Beoska-----	Severe: percs slowly	Severe: seepage	Slight	Slight	Poor: small stones
664: Oxcorel-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
Golconda-----	Severe: cemented pan	Severe: cemented pan	Severe: excess salt	Slight	Poor: cemented pan
665: Oxcorel-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
Snapp-----	Severe: percs slowly poor filter	Severe: seepage	Moderate: too sandy	Slight	Poor: seepage small stones
669: Oxcorel-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
670: Devada-----	Severe: depth to rock	Severe: depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Devada-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Goosel-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: depth to rock	Slight	Poor: hard to pack depth to rock
671: Devada-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rock Outcrop----	---	---	---	---	---
Clementine-----	---	---	---	---	---
673: Devada-----	Severe: depth to rock	Severe: depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Devada-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
676: Devada-----	Severe: depth to rock	Severe: depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Snowmore-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: depth to rock
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock
677: Devada-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
678: Devada-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Devada-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Rubble Land-----	Severe: large stones slope poor filter	Severe: large stones seepage slope	Severe: seepage slope depth to rock	Severe: seepage slope	Poor: seepage slope small stones
680: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Trunk-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Rock Outcrop----	---	---	---	---	---
690: Sodhouse-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan seepage small stones
Golconda-----	Severe: cemented pan	Severe: cemented pan	Severe: excess salt	Slight	Poor: cemented pan
691: Sodhouse-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
700: Atlow-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Gowjai-----	Severe: slope	Severe: seepage slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
701: Atlow-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Wiskan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
704: Atlow-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Atlow-----	Severe: depth to rock	Severe: large stones slope depth to rock	Severe: large stones depth to rock	Moderate: slope	Poor: small stones depth to rock
710: Xipe-----	Severe: flooding wetness poor filter	Severe: flooding seepage wetness	Severe: flooding seepage wetness	Severe: flooding seepage wetness	Poor: small stones too sandy
Clementine-----	---	---	---	---	---
720: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Sodhouse-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan
721: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Laped-----	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: cemented pan depth to rock	Moderate: slope	Poor: small stones depth to rock
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
722: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Burrita-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: small stones depth to rock
Flue-----	Severe: cemented pan percs slowly slope	Severe: cemented pan seepage slope	Severe: cemented pan slope	Severe: slope	Poor: cemented pan hard to pack slope
724: Dewar-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
726: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Dewar-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan
727: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock
Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
728: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock
Devada-----	Severe: depth to rock	Severe: depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
729: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Boger-----	Severe: cemented pan depth to rock	Severe: cemented pan large stones depth to rock	Severe: cemented pan large stones depth to rock	Slight	Poor: small stones depth to rock
732: Kelk-----	Severe: percs slowly	Moderate: seepage	Slight	Slight	Good
Kelk-----	Severe: flooding percs slowly	Severe: flooding	Severe: flooding	Severe: flooding	Good
733: Kelk-----	Severe: flooding percs slowly	Severe: flooding	Severe: flooding	Severe: flooding	Good
Enko-----	Severe: percs slowly	Severe: seepage	Slight	Slight	Good

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
734: Kelk-----	Severe: flooding percs slowly	Severe: flooding	Severe: flooding	Severe: flooding	Good
736: Kelk-----	Severe: percs slowly	Moderate: seepage	Slight	Slight	Good
Kortty-----	Moderate: cemented pan percs slowly	Severe: seepage	Moderate: cemented pan	Slight	Poor: small stones
740: Gowjai-----	Severe: slope	Severe: seepage slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
750: Snapp-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too sandy	Slight	Poor: seepage small stones
Oxcorel-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
751: Snapp-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too sandy	Slight	Poor: seepage small stones
Sodhouse-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan seepage small stones
752: Snapp-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too sandy	Slight	Poor: seepage small stones
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
753: Snapp-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too sandy	Slight	Poor: seepage small stones

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Dugchip-----	Severe: cemented pan percs slowly	Severe: cemented pan	Severe: cemented pan too sandy	Slight	Poor: cemented pan seepage too sandy
Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
754: Snapp-----	Severe: percs slowly	Severe: slope	Moderate: slope too sandy	Moderate: slope	Poor: seepage small stones
Puett-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
755: Snapp-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too sandy	Slight	Poor: seepage small stones
Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage small stones too sandy
756: Snapp-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too sandy	Slight	Poor: seepage small stones
Adelaide-----	Severe: cemented pan percs slowly poor filter	Severe: cemented pan seepage	Moderate: cemented pan too sandy	Slight	Poor: cemented pan seepage small stones
McConnel-----	Severe: poor filter	Severe: seepage	Severe: excess salt too sandy	Slight	Poor: seepage small stones too sandy
760: Piline-----	Severe: percs slowly wetness	Slight	Severe: too clayey wetness	Severe: wetness	Poor: hard to pack too clayey wetness
Piline-----	Severe: percs slowly ponding	Severe: ponding	Severe: too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding
761: Piline-----	Severe: percs slowly ponding	Severe: ponding	Severe: too clayey ponding	Severe: ponding	Poor: hard to pack too clayey ponding

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
772: Broyles-----	Slight	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
773: Broyles-----	Slight	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
774: Broyles-----	Slight	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
775: Broyles-----	Slight	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
Bubus-----	Moderate: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
Goldrun-----	Severe: poor filter	Severe: seepage	Severe: excess salt too sandy	Slight	Poor: too sandy
780: Dacker-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
781: Dacker-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Bilbo-----	Severe: percs slowly slope	Severe: seepage slope	Severe: slope	Severe: slope	Poor: slope small stones
782: Dacker-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Devada-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Snowmore-----	Severe: cemented pan slope depth to rock	Severe: cemented pan slope depth to rock	Severe: cemented pan slope depth to rock	Severe: slope	Poor: slope depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
790: Rio King-----	Moderate: flooding percs slowly wetness	Moderate: seepage	Severe: wetness	Moderate: flooding	Good
Clementine-----	---	---	---	---	---
791: Rio King-----	Moderate: flooding percs slowly wetness	Moderate: seepage	Severe: wetness	Moderate: flooding	Good
800: Udelope-----	Severe: depth to rock	Severe: seepage slope depth to rock	Severe: seepage depth to rock	Severe: depth to rock	Poor: small stones depth to rock
Bregar-----	Severe: depth to rock	Severe: large stones depth to rock	Severe: large stones depth to rock	Slight	Poor: depth to rock
Rock Outcrop----	---	---	---	---	---
801: Udelope-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
810: Batan-----	Severe: percs slowly	Slight	Severe: excess salt	Slight	Good
Goldrun-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
811: Batan-----	Severe: percs slowly	Slight	Severe: excess salt	Slight	Good
Batan-----	Severe: percs slowly	Slight	Severe: excess salt	Slight	Good
813: Batan-----	Severe: percs slowly	Slight	Severe: excess salt	Slight	Good
815: Batan-----	Severe: percs slowly	Slight	Severe: excess salt	Slight	Good

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Prideen-----	Severe: percs slowly wetness	Severe: wetness	Severe: excess salt wetness	Severe: wetness	Poor: excess salt
Wendane-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: excess sodium flooding wetness	Severe: flooding wetness	Poor: excess sodium excess salt
818: Batan-----	Severe: percs slowly	Slight	Severe: excess salt	Slight	Good
Bubus-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
Goldrun-----	Severe: slope poor filter	Severe: seepage slope	Severe: slope too sandy	Severe: slope	Poor: slope too sandy
823: Whirlo-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
Snapp-----	Severe: percs slowly	Moderate: seepage slope	Moderate: too sandy	Slight	Poor: seepage small stones
825: Whirlo-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
Oxcoral-----	Slight	Severe: seepage	Slight	Slight	Poor: small stones
Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
831: Boton-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
Playas-----	Severe: flooding percs slowly ponding	Severe: flooding ponding	Severe: flooding too clayey ponding	Severe: flooding ponding	Poor: hard to pack too clayey ponding
833: Boton-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
Isolde-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Boton-----	Severe: percs slowly	Severe: seepage	Severe: excess salt	Moderate: flooding	Good
834: Boton-----	Severe: percs slowly	Severe: seepage	Slight	Slight	Good
Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
840: Dugchip-----	Severe: cemented pan percs slowly	Severe: cemented pan	Severe: cemented pan too sandy	Slight	Poor: cemented pan seepage too sandy
Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
842: Dugchip-----	Severe: cemented pan percs slowly	Severe: cemented pan	Severe: cemented pan too sandy	Slight	Poor: cemented pan seepage too sandy
Kelk-----	Severe: flooding percs slowly	Severe: flooding	Severe: flooding	Severe: flooding	Good
844: Dugchip-----	Severe: cemented pan percs slowly	Severe: cemented pan	Severe: cemented pan too sandy	Slight	Poor: cemented pan seepage too sandy
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
845: Dugchip-----	Severe: cemented pan percs slowly	Severe: cemented pan	Severe: cemented pan too sandy	Slight	Poor: cemented pan seepage too sandy
Needle Peak----	Severe: percs slowly	Moderate: wetness	Severe: wetness	Moderate: flooding wetness	Fair: too clayey
860: Goosel-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: depth to rock	Slight	Poor: hard to pack depth to rock
Devada-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
861: Goosel-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: depth to rock	Slight	Poor: hard to pack depth to rock
862: Goosel-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: depth to rock	Slight	Poor: hard to pack depth to rock
Devada-----	Severe: depth to rock	Severe: depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Goosel-----	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack depth to rock
863: Goosel-----	Severe: cemented pan depth to rock	Severe: cemented pan seepage depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack depth to rock
Midraw-----	Severe: cemented pan slope depth to rock	Severe: cemented pan slope depth to rock	Severe: cemented pan slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
880: Cleavage-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Cumulic Haplaquolls----	---	---	---	---	---
881: Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Bregar-----	Severe: depth to rock	Severe: large stones slope depth to rock	Severe: large stones depth to rock	Moderate: slope	Poor: small stones depth to rock
882: Cleavage-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Rock Outcrop----	---	---	---	---	---
883: Cleavage-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: small stones depth to rock
Tusel-----	Severe: percs slowly	Severe: large stones slope	Severe: large stones depth to rock	Moderate: slope depth to rock	Poor: small stones
Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
884: Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Tusel-----	Severe: percs slowly slope	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones
885: Cleavage-----	Severe: depth to rock	Severe: large stones slope depth to rock	Severe: large stones depth to rock	Severe: depth to rock	Poor: small stones depth to rock
Cleavage-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Reluctan-----	Severe: percs slowly depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
886: Cleavage-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Bullump-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
891: Softscrabble----	Severe: percs slowly slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope small stones
Cleavage-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
892: Softscrabble----	Severe: percs slowly slope	Severe: slope	Severe: large stones slope	Severe: slope	Poor: slope small stones
Cleavage-----	Severe: depth to rock	Severe: large stones slope depth to rock	Severe: large stones depth to rock	Severe: depth to rock	Poor: small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
900: Roca-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Bregar-----	Severe: depth to rock	Severe: large stones slope depth to rock	Severe: large stones depth to rock	Moderate: slope	Poor: small stones depth to rock
Linrose-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
901: Roca-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Reluctan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
902: Roca-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Alyan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Quomus-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
903: Roca-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Walti-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope depth to rock
Reluctan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
907: Roca-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Climine-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope small stones
Rock Outcrop----	---	---	---	---	---
909: Roca-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Nomara-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Rock Outcrop----	---	---	---	---	---

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
911: Barnard-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage slope	Severe: cemented pan seepage	Severe: cemented pan	Poor: cemented pan small stones
Barnard-----	Severe: cemented pan percs slowly slope	Severe: cemented pan seepage slope	Severe: cemented pan seepage slope	Severe: cemented pan slope	Poor: cemented pan slope small stones
Devada-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
921: Walti-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope depth to rock
Reluctan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Sumine-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
922: Walti-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack depth to rock
Reluctan-----	Severe: percs slowly depth to rock	Severe: depth to rock	Severe: depth to rock	Slight	Poor: small stones depth to rock
Tusel-----	Severe: percs slowly	Severe: slope	Severe: depth to rock	Moderate: slope depth to rock	Poor: small stones
Cumulic Haplaquolls---	---	---	---	---	---
923: Walti-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope depth to rock
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Cumulic Haplaquolls----	---	---	---	---	---
924: Walti-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack depth to rock
Tusk-----	Severe: percs slowly slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope small stones
Alyan-----	Severe: percs slowly depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
Cumulic Haplaquolls----	---	---	---	---	---
930: Tenabo-----	Severe: cemented pan poor filter	Severe: cemented pan seepage slope	Severe: excess salt cemented pan too sandy	Moderate: slope	Poor: cemented pan seepage too sandy
Oxcorel-----	Severe: slope	Severe: seepage slope	Severe: slope	Severe: slope	Poor: slope small stones
940: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rock Outcrop----	---	---	---	---	---
941: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rock Outcrop----	---	---	---	---	---
942: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Rock Outcrop----	---	---	---	---	---
943: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Soughe-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: small stones depth to rock
944: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Rock Outcrop----	---	---	---	---	---
946: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rubble Land----	Severe: large stones slope poor filter	Severe: large stones seepage slope	Severe: seepage slope depth to rock	Severe: seepage slope	Poor: seepage slope small stones
947: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
954: Puffer-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope depth to rock
Xine-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: large stones slope depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Rock Outcrop----	---	---	---	---	---
955: Puffer-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rock Outcrop----	---	---	---	---	---
960: Zevadez-----	Severe: percs slowly	Slight	Slight	Slight	Good
Wieland-----	Severe: percs slowly	Moderate: seepage	Slight	Slight	Fair: small stones
Kelk-----	Severe: percs slowly	Moderate: seepage	Slight	Slight	Good
Piline-----	---	---	---	---	---
962: Zevadez-----	Severe: percs slowly	Severe: slope	Moderate: slope	Moderate: slope	Fair: slope
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
963: Zevadez-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
McConnel-----	Severe: poor filter	Severe: seepage	Severe: excess salt too sandy	Slight	Poor: seepage small stones too sandy
964: Zevadez-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
970: Gosumi-----	Severe: percs slowly slope	Severe: seepage slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Walti-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Slight	Poor: hard to pack depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
980: Snowmore-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: depth to rock
Snowmore-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: depth to rock
981: Snowmore-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: depth to rock
Zevadex-----	Severe: percs slowly	Slight	Slight	Slight	Good
Snowmore-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: depth to rock
983: Snowmore-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: depth to rock
Devada-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
984: Snowmore-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Devada-----	Severe: depth to rock	Severe: depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
990: Playas-----	Severe: flooding percs slowly ponding	Severe: flooding ponding	Severe: flooding too clayey ponding	Severe: flooding ponding	Poor: hard to pack too clayey ponding
994: Dune Land-----	Severe: slope poor filter	Severe: seepage slope	Severe: seepage slope too sandy	Severe: seepage slope	Poor: seepage slope too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
995: Dune Land-----	Severe: slope poor filter	Severe: seepage slope	Severe: seepage slope too sandy	Severe: seepage slope	Poor: seepage slope too sandy
Goldrun-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: too sandy
Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
998: Dumps-----	Severe: large stones slope poor filter	Severe: large stones seepage slope	Severe: large stones seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Pits-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: depth to rock
999: Slickens-----	Slight	Slight	Severe: excess salt	Slight	Poor: excess salt
1004: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Davey-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: too sandy
1005: Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1007: Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Puett-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1010: Bartome-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Chiara-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
1020: Wholan-----	Moderate: flooding percs slowly	Moderate: seepage	Moderate: flooding	Moderate: flooding	Good
1023: Wholan-----	Moderate: flooding percs slowly	Moderate: seepage slope	Moderate: flooding	Moderate: flooding	Good
Bliss-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Enko-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
1025: Wholan-----	Moderate: flooding percs slowly	Moderate: seepage	Moderate: flooding	Moderate: flooding	Good
1030: Bullump-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Westbutte-----	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: large stones slope depth to rock
Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Cumulic Haplaquolls---	---	---	---	---	---
1031: Bullump-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Cleavage-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
1050: Argenta-----	Severe: wetness	Severe: wetness	Severe: excess sodium excess salt wetness	Severe: wetness	Poor: excess sodium excess salt
1051: Argenta-----	Severe: wetness	Severe: wetness	Severe: excess sodium excess salt wetness	Severe: wetness	Poor: excess sodium excess salt
Preble-----	Severe: percs slowly wetness	Severe: seepage	Severe: excess salt seepage wetness	Severe: wetness	Fair: thin layer wetness
1052: Argenta-----	Severe: wetness	Severe: wetness	Severe: excess sodium excess salt wetness	Severe: wetness	Poor: excess sodium excess salt
Preble-----	Severe: percs slowly wetness	Severe: seepage	Severe: excess salt seepage wetness	Severe: wetness	Fair: thin layer wetness
1055: Argenta-----	Severe: wetness	Severe: wetness	Severe: excess sodium excess salt wetness	Severe: wetness	Poor: excess sodium excess salt
1060: Paranat-----	Severe: flooding percs slowly	Severe: flooding	Severe: flooding wetness	Severe: flooding	Fair: too clayey
1061: Paranat-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
1064: Paranat-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
Paranat-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: excess salt flooding wetness	Severe: flooding wetness	Fair: too clayey wetness

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1066: Paranat-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
1067: Paranat-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: excess salt flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
Clementine-----	---	---	---	---	---
1072: Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Laped-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock
Rubble Land-----	Severe: large stones slope poor filter	Severe: large stones seepage slope	Severe: seepage slope depth to rock	Severe: seepage slope	Poor: seepage slope small stones
1075: Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones
Rock Outcrop----	---	---	---	---	---
1077: Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rock Outcrop----	---	---	---	---	---
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1078: Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Moderate: slope	Poor: small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Genaw-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: small stones depth to rock
1090: Soolake-----	Slight	Severe: seepage	Severe: excess salt too sandy	Slight	Poor: too sandy
Argenta-----	Severe: wetness	Severe: wetness	Severe: excess sodium excess salt wetness	Severe: wetness	Poor: excess sodium excess salt
1100: Wendane-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: excess sodium flooding wetness	Severe: flooding wetness	Poor: excess sodium excess salt
1101: Wendane-----	Severe: percs slowly wetness	Severe: wetness	Severe: excess sodium excess salt wetness	Severe: wetness	Poor: excess sodium excess salt
1102: Wendane-----	Severe: percs slowly wetness	Severe: wetness	Severe: excess sodium excess salt wetness	Severe: wetness	Poor: excess sodium excess salt
Wendane-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: excess sodium flooding wetness	Severe: flooding wetness	Poor: excess sodium excess salt
1104: Wendane-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: excess sodium flooding wetness	Severe: flooding wetness	Poor: excess sodium excess salt
Sonoma-----	Severe: flooding percs slowly wetness	Severe: flooding wetness	Severe: flooding wetness	Severe: flooding wetness	Fair: too clayey wetness
1110: Theon-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1120: Relley-----	Severe: flooding	Severe: flooding	Severe: excess salt flooding	Severe: flooding	Good
Kelk-----	Severe: percs slowly	Moderate: seepage	Slight	Slight	Good

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1140: Layview-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Tusel-----	Severe: large stones percs slowly slope	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones
Layview-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: small stones depth to rock
1142: Layview-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Udelope-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
1150: Cotant-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope depth to rock
Say-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Cotant-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Slight	Poor: hard to pack depth to rock
1151: Cotant-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope depth to rock
Say-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Gol-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1160: Hawsley-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1161: Hawsley-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage too sandy
Isolde-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: seepage too sandy
1162: Hawsley-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage too sandy
Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Mazuma-----	Slight	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
1167: Hawsley-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: seepage too sandy
1168: Hawsley-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: seepage too sandy
Davey-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: too sandy
Essal-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
1169: Hawsley-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: seepage too sandy
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
1170: Hunnton-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan hard to pack
Bliss-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Trunk-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
1171: Hunnton-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan seepage small stones
Dugchip-----	Severe: cemented pan percs slowly	Severe: cemented pan	Severe: cemented pan too sandy	Slight	Poor: cemented pan seepage too sandy
Orovada-----	Moderate: percs slowly	Moderate: seepage slope	Slight	Slight	Good
1172: Flue-----	Severe: cemented pan percs slowly	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
Hunnton-----	Severe: cemented pan	Severe: cemented pan seepage slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan seepage small stones
McConnel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
1173: Hunnton-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan seepage small stones
1174: Hunnton-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan seepage small stones
Zevadez-----	Severe: percs slowly	Moderate: slope	Slight	Slight	Good
Enko-----	Severe: percs slowly	Moderate: seepage	Slight	Slight	Good
1175: Hunnton-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan hard to pack
Goosel-----	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: large stones depth to rock	Moderate: slope	Poor: hard to pack depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
1176: Hunnton-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
Hunnton-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan hard to pack
Dacker-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan small stones
1180: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1181: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1184: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Rock Outcrop---	---	---	---	---	---
1185: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
Quomus-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Atlow-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1186: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock
1187: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Hoot-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1188: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
1189: Rocconda-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1192: Enko-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
1194: Enko-----	Severe: percs slowly	Moderate: seepage	Slight	Slight	Good

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1200: Erakatak-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Madeline-----	Severe: depth to rock	Severe: depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
1201: Erakatak-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
1202: Erakatak-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Bullump-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Rock Outcrop---	---	---	---	---	---
1210: Cresal-----	Severe: percs slowly	Slight	Severe: excess salt	Slight	Good
Playas-----	Severe: flooding percs slowly ponding	Severe: flooding ponding	Severe: flooding too clayey ponding	Severe: flooding ponding	Poor: hard to pack too clayey ponding
1211: Cresal-----	Severe: percs slowly	Slight	Severe: excess salt	Slight	Good
1212: Cresal-----	Severe: percs slowly	Slight	Severe: excess salt	Slight	Good
Tresed-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt too sandy	Slight	Fair: too sandy

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Playas-----	Severe: flooding percs slowly ponding	Severe: flooding ponding	Severe: flooding too clayey ponding	Severe: flooding ponding	Poor: hard to pack too clayey ponding
1221: Alyan-----	Severe: percs slowly depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
Bilbo-----	Severe: percs slowly slope	Severe: seepage slope	Severe: slope	Severe: slope	Poor: slope small stones
1230: Knott-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan small stones
Sodhouse-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan seepage small stones
Wholan-----	Moderate: flooding percs slowly	Moderate: seepage	Moderate: flooding	Moderate: flooding	Good
1240: Laped-----	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: cemented pan depth to rock	Moderate: slope	Poor: small stones depth to rock
1241: Laped-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock
Boger-----	Severe: cemented pan depth to rock	Severe: cemented pan large stones depth to rock	Severe: cemented pan large stones depth to rock	Slight	Poor: small stones depth to rock
1255: Dutchjohn-----	Severe: percs slowly poor filter	Severe: seepage slope	Severe: depth to rock	Moderate: slope	Poor: small stones
Cleavage-----	Severe: depth to rock	Severe: large stones slope depth to rock	Severe: large stones depth to rock	Severe: depth to rock	Poor: small stones depth to rock
Bregar-----	Severe: depth to rock	Severe: large stones depth to rock	Severe: large stones depth to rock	Slight	Poor: small stones depth to rock
Cumulic Haplaquolls----	---	---	---	---	---

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1260: Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
Trocken-----	Moderate: large stones percs slowly	Moderate: large stones seepage	Severe: large stones	Slight	Poor: small stones
1271: Gol-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Say-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rock Outcrop---	---	---	---	---	---
1285: Igdell-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan hard to pack small stones
Gochea-----	Moderate: slope	Severe: seepage slope	Severe: seepage	Severe: seepage	Poor: small stones
Cumulic Haplaquolls---	---	---	---	---	---
1291: Tresed-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt too sandy	Slight	Fair: too sandy
Isolde-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: seepage too sandy
1292: Tresed-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt too sandy	Slight	Fair: too sandy
1310: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Tenabo-----	Severe: cemented pan poor filter	Severe: cemented pan seepage	Severe: excess salt cemented pan too sandy	Slight	Poor: cemented pan seepage too sandy
1312: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Dacker-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan
Dewar-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan
1313: Dewar-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan
Sodhouse-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock
1314: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Zevadez-----	Severe: percs slowly	Moderate: seepage slope	Slight	Slight	Good
1315: Dewar-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
Chiara-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan
Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1321: Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: cemented pan depth to rock	Moderate: slope	Poor: small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1322: Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Devada-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
1324: Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Gowjai-----	Severe: slope	Severe: seepage slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
1327: Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Gowjai-----	Severe: slope	Severe: seepage slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1331: Siscab-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Aycab-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Poor: slope depth to rock
Ola-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock
Cumelic Haplaquolls----	---	---	---	---	---

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1332: Siscab-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Ola-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope depth to rock
Rock Outcrop---	---	---	---	---	---
Cumulic Haplaquolls---	---	---	---	---	---
1333: Siscab-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Say-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rock Outcrop---	---	---	---	---	---
1334: Siscab-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Eaglerock-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rock Outcrop---	---	---	---	---	---
1335: Siscab-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Westbutte-----	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: large stones slope depth to rock
Rock Outcrop---	---	---	---	---	---
Clementine-----	---	---	---	---	---
1341: Longcreek-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Menbo-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Rock Outcrop---	---	---	---	---	---
Cumulic Haplaquolls---	---	---	---	---	---
1342: Longcreek-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Rock Outcrop---	---	---	---	---	---
Clementine-----	---	---	---	---	---
1344: Longcreek-----	Severe: large stones depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Softscrabble---	Severe: large stones percs slowly slope	Severe: large stones slope	Severe: large stones slope	Severe: slope	Poor: large stones slope
Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
1345: Longcreek-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Zymans-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope
1360: Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: cemented pan depth to rock	Moderate: slope	Poor: small stones depth to rock
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: cemented pan depth to rock	Moderate: slope	Poor: small stones depth to rock
1362: Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Severe: cemented pan depth to rock	Slight	Poor: small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Midraw-----	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: cemented pan depth to rock	Moderate: slope	Poor: small stones depth to rock
Hunnton-----	Severe: cemented pan	Severe: cemented pan seepage	Severe: cemented pan	Slight	Poor: cemented pan seepage small stones
1371: Devada-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Devada-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
1373: Devada-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Zymans-----	Severe: percs slowly	Moderate: slope depth to rock	Severe: depth to rock	Slight	Poor: hard to pack
Devada-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
1380: Genaw-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Rocconda-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: depth to rock
1381: Genaw-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Slight	Poor: small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Trunk-----	Severe: percs slowly depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
Devada-----	Severe: depth to rock	Severe: depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
1382: Genaw-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Puett-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
1390: Mulhop-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Xine-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: large stones slope depth to rock
Rock Outcrop---	---	---	---	---	---
1400: Madeline-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Anawalt-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Cumulic Haplaquolls---	---	---	---	---	---
1410: Say-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Tosp-----	Severe: slope	Severe: seepage slope	Severe: seepage slope depth to rock	Severe: seepage slope	Poor: slope

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Aycab-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Poor: slope depth to rock
1411: Say-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Aycab-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Poor: slope depth to rock
1420: Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Panlee-----	Severe: slope	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1421: Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Davey-----	Severe: poor filter	Severe: seepage slope	Severe: too sandy	Moderate: slope	Poor: too sandy
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1423: Panlee-----	Severe: slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Vanwyper-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: hard to pack large stones depth to rock
Carstump-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1431: Hunnton-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan hard to pack
Rodock-----	Severe: percs slowly	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
Cumulic Haplaquolls----	---	---	---	---	---
1432: Rodock-----	Severe: percs slowly	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
Connel-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
1433: Rodock-----	Severe: percs slowly	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
1436: Rodock-----	Severe: percs slowly	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
1437: Rodock-----	Severe: percs slowly	Severe: seepage	Severe: too sandy	Moderate: flooding	Poor: seepage small stones too sandy
1450: Wiskan-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Climine-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope small stones
1460: Ninemile-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Anawalt-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Reluctan-----	Severe: percs slowly depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: small stones depth to rock
1461: Ninemile-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Alyan-----	Severe: percs slowly depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
Cumulic Haplaquolls----	---	---	---	---	---
1462: Ninemile-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Anawalt-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
1464: Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Sumine-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Cumulic Haplaquolls----	---	---	---	---	---
1465: Cleavage-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
1466: Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Bullump-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
1467: Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Udelope-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
1468: Ninemile-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Softscrabble----	Severe: percs slowly slope	Severe: slope	Severe: large stones slope	Severe: slope	Poor: slope small stones
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
1469: Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Softscrabble----	Severe: percs slowly slope	Severe: slope	Severe: large stones slope	Severe: slope	Poor: slope small stones

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Sumine-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1470: Zymans-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope
Burrita-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Devada-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
1471: Zymans-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope
Burrita-----	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1472: Zymans-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: hard to pack slope
Zymans-----	Severe: percs slowly	Severe: slope	Severe: depth to rock	Moderate: slope	Poor: hard to pack
Burrita-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1473: Zymans-----	Severe: percs slowly	Severe: slope	Severe: depth to rock	Moderate: slope	Poor: hard to pack
Genaw-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Slight	Poor: small stones depth to rock
1480: Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Rock Outcrop---	---	---	---	---	---

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1481: Cleavage-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
1482: Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Layview-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
1483: Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Hackwood-----	Severe: slope	Severe: slope	Severe: slope	Severe: slope	Poor: slope
Spinlin-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: small stones too clayey depth to rock
1484: Tusel-----	Severe: percs slowly slope	Severe: slope	Severe: slope depth to rock	Severe: slope	Poor: slope small stones
Ninemile-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Cleavage-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
1500: Eaglerock-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
Acrelane-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope depth to rock
Rock Outcrop----	---	---	---	---	---

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1520: Croesus-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: seepage small stones depth to rock
Rock Outcrop----	---	---	---	---	---
1521: Croesus-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: seepage small stones depth to rock
Rock Outcrop----	---	---	---	---	---
1522: Croesus-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: seepage small stones depth to rock
Harcany-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: seepage slope small stones
Rock Outcrop----	---	---	---	---	---
1523: Croesus-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Poor: seepage small stones depth to rock
Udelope-----	Severe: slope depth to rock	Severe: seepage slope depth to rock	Severe: seepage slope depth to rock	Severe: slope depth to rock	Poor: slope small stones depth to rock
Layview-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: small stones depth to rock
1524: Croesus-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Severe: depth to rock	Poor: seepage small stones depth to rock
Spinlin-----	Severe: percs slowly depth to rock	Severe: large stones slope depth to rock	Severe: large stones too clayey depth to rock	Severe: depth to rock	Poor: small stones too clayey depth to rock
Cumulic Cryaquolls----	---	---	---	---	---

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
1530: Westbutte-----	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: large stones slope depth to rock	Severe: slope depth to rock	Poor: large stones slope depth to rock
1540: Locane-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: slope small stones depth to rock
1551: Charwell-----	Severe: cemented pan depth to rock	Severe: cemented pan slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
Anawalt-----	Severe: depth to rock	Severe: slope depth to rock	Severe: depth to rock	Moderate: slope	Poor: hard to pack small stones depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope	Poor: hard to pack small stones depth to rock
1560: Menbo-----	Severe: percs slowly slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Rock Outcrop---	---	---	---	---	---
1561: Menbo-----	Severe: percs slowly depth to rock	Severe: large stones slope depth to rock	Severe: large stones too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Madeline-----	Severe: depth to rock	Severe: slope depth to rock	Severe: too clayey depth to rock	Severe: depth to rock	Poor: hard to pack too clayey depth to rock
Tusel-----	Severe: percs slowly slope	Severe: large stones slope	Severe: large stones slope depth to rock	Severe: slope	Poor: slope small stones
Cumulic Haplaquolls---	---	---	---	---	---
1562: Devada-----	Severe: slope depth to rock	Severe: slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Menbo-----	Severe: percs slowly slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Longcreek-----	Severe: slope depth to rock	Severe: large stones slope depth to rock	Severe: slope too clayey depth to rock	Severe: slope depth to rock	Poor: hard to pack too clayey depth to rock
Cumulic Haplaquolls----	---	---	---	---	---
1570: Delvada-----	Severe: flooding percs slowly wetness	Severe: flooding	Severe: flooding too clayey wetness	Severe: flooding wetness	Poor: hard to pack too clayey wetness
1572: Delvada-----	Severe: percs slowly	Slight	Severe: excess salt too clayey wetness	Moderate: flooding wetness	Poor: hard to pack too clayey
1579: Delvada-----	Severe: flooding percs slowly wetness	Severe: flooding	Severe: flooding too clayey wetness	Severe: flooding wetness	Poor: hard to pack too clayey wetness
1580: Isolde-----	Severe: slope poor filter	Severe: seepage slope	Severe: slope too sandy	Severe: slope	Poor: seepage slope too sandy
Essal-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Essal-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
1594: Boton-----	Severe: percs slowly	Moderate: seepage	Severe: excess salt	Slight	Good
Boton-----	Severe: flooding percs slowly	Severe: flooding	Severe: excess salt flooding	Severe: flooding	Good
1600: Clurde-----	Slight	Severe: seepage	Slight	Slight	Fair: small stones
1610: Gochea-----	Slight	Severe: seepage	Severe: seepage	Severe: seepage	Poor: small stones
Gochea-----	Severe: slope	Severe: seepage slope	Severe: seepage slope	Severe: seepage slope	Poor: slope small stones

TABLE 9.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Igdell-----	Severe: cemented pan	Severe: cemented pan slope	Severe: cemented pan	Moderate: slope	Poor: cemented pan hard to pack small stones
1620: Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
1621: Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
Wholan-----	Moderate: flooding percs slowly	Moderate: seepage	Moderate: flooding	Moderate: flooding	Good
1622: Weso-----	Moderate: percs slowly	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
Davey-----	Severe: poor filter	Severe: seepage	Severe: too sandy	Slight	Poor: too sandy
Broyles-----	Slight	Severe: seepage	Moderate: too sandy	Slight	Fair: small stones too sandy
1630: Bliss-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
1631: Bliss-----	Severe: cemented pan	Severe: cemented pan	Severe: cemented pan	Slight	Poor: cemented pan
1640: Kleck-----	Severe: depth to rock	Severe: depth to rock	Severe: depth to rock	Slight	Poor: depth to rock
1650: Water-----	---	---	---	---	---
1651: Miscellaneous Water-----	---	---	---	---	---

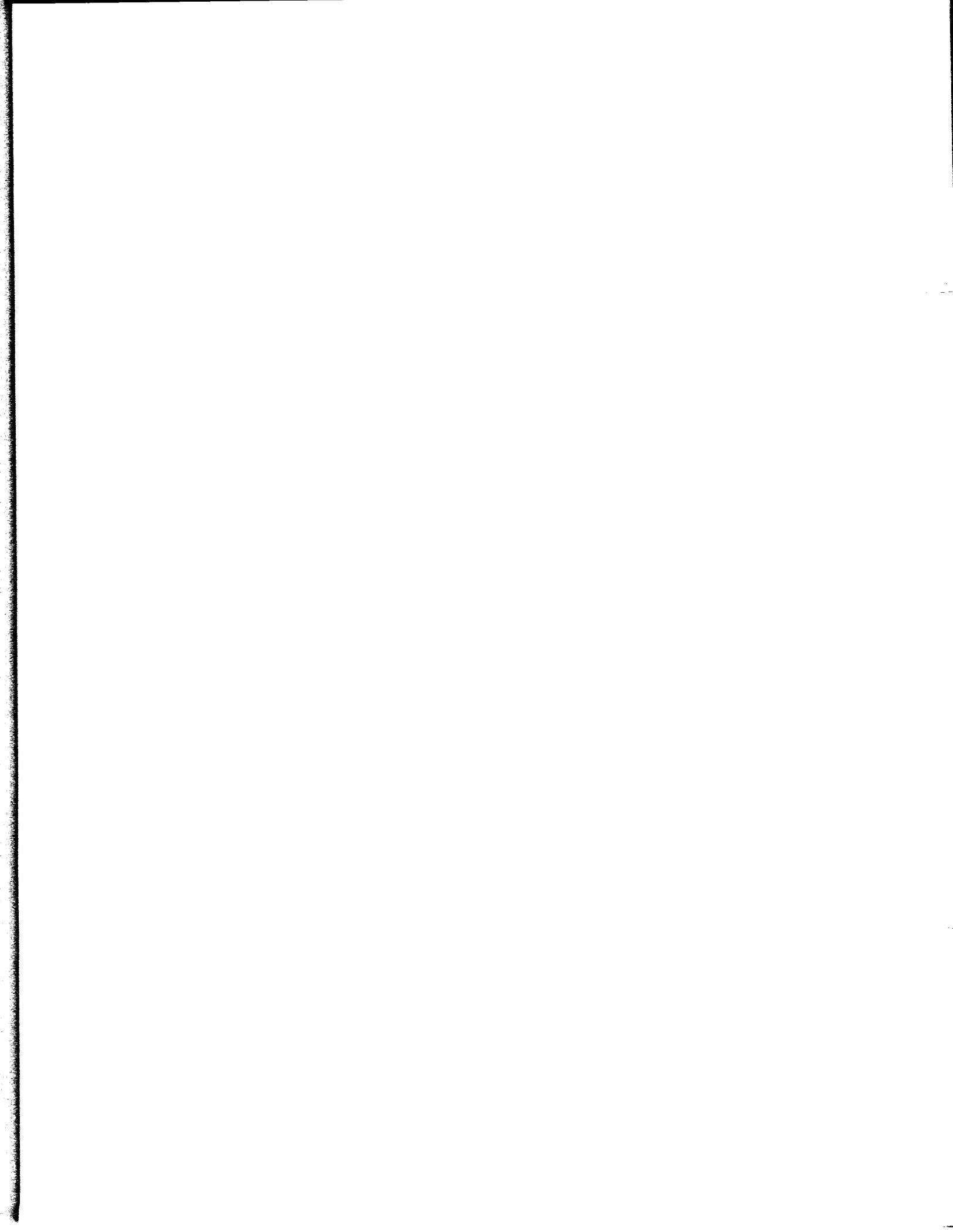


TABLE 10--CONSTRUCTION MATERIALS

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
100: Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Alyan-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
101: Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Alyan-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
102: Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Tusk-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
106: Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Alyan-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
107: Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Tusk-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
108: Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Alyan-----	Poor: shrink-swell slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
110: Adelaide-----	Good	Improbable: small stones	Probable	Poor: area reclaim cemented pan small stones
120: Bregar-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Tusk-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Bregar-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
122: Bregar-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Tusel-----	Fair: shrink-swell thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Cleavage-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
131: Benin-----	Poor: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
133: Benin-----	Poor: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
141: Beoska-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim excess salt small stones
Bluewing-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
143: Beoska-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim excess salt small stones
Broyles-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt small stones
144: Beoska-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim excess salt small stones
Dun Glen-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
145: Beoska-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim excess salt small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Beoska-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim excess salt small stones
Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
151: Blackhawk-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt cemented pan too sandy
152: Blackhawk-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt cemented pan too sandy
154: Blackhawk-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt cemented pan too sandy
Golconda-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones
155: Blackhawk-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt cemented pan too sandy
156: Blackhawk-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt cemented pan too sandy
Clurde-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones
157: Blackhawk-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt cemented pan too sandy
Broyles-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
158: Blackhawk-----	Good	Probable	Probable	Poor: area reclaim cemented pan small stones
Trocken-----	Fair: large stones	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones
160: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
161: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan slope
163: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
Shabliss-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
165: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
Dugchip-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim excess sodium small stones
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
166: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
Shabliss-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
167: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
Blackhawk-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt cemented pan too sandy
Adelaide-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt cemented pan
169: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
171: Bubus-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
174: Bubus-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Needle Peak-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
178: Bubus-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Preble-----	Good	Probable	Improbable: too sandy	Poor: excess salt
184: Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
185: Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Dacker-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
186: Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Hunnton-----	Poor: cemented pan	Improbable: small stones	Probable	Poor: area reclaim small stones too clayey
187: Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Boger-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones depth to rock
Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
188: Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan large stones
Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan large stones
190: Beeox-----	Good	Probable	Probable	Poor: area reclaim excess sodium small stones
Oxcorel-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
191: Beeox-----	Good	Probable	Probable	Poor: area reclaim excess sodium small stones
Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
192: Beeox-----	Good	Probable	Probable	Poor: area reclaim excess sodium small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
200: Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
201: Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
202: Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
203: Davey-----	Fair: thin layer	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
204: Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Blackhawk-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt cemented pan too sandy
205: Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Hawsley-----	Good	Probable	Improbable: too sandy	Poor: too sandy
206: Broyles-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt small stones
Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Dun Glen-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
207: Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Pumper-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
208: Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
210: Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
211: Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
Golconda-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium
Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
212: Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
213: Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
Puett-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
215: Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
216: Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
217: Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
218: Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
Rodock-----	Good	Probable	Probable	Poor: area reclaim small stones
Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
222: Bloor-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
231: Dun Glen-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
233: Dun Glen-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
241: Sojur-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
250: Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Goldrun-----	Fair: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope too sandy
251: Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
252: Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
253: Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
McConnel-----	Good	Improbable: small stones	Probable	Poor: area reclaim small stones too sandy
254: Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
Zevadez-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: slope small stones
255: Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
257: Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
258: Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
262: Golconda-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium
Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
263: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
Golconda-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium small stones
Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
270: Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
271: Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
272: Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
274: Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Benin-----	Poor: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
275: Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Preble-----	Good	Probable	Improbable: too sandy	Poor: excess salt
281: Golsum-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Harcany-----	Poor: slope	Probable	Probable	Poor: area reclaim slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Spinlin-----	Poor: shrink-swell slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
290: Havingdon-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
292: Havingdon-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Gowjai-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Walti-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
302: Essal-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: thin layer
Isolde-----	Good	Probable	Improbable: too sandy	Poor: too sandy
Playas-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey wetness
305: Essal-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Isolde-----	Good	Probable	Improbable: too sandy	Poor: too sandy
Hawsley-----	Good	Probable	Improbable: too sandy	Poor: too sandy
307: Essal-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Isolde-----	Good	Probable	Improbable: too sandy	Poor: too sandy

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Tresed-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
311: Harcany-----	Poor: slope	Probable	Probable	Poor: area reclaim slope small stones
Croesus-----	Poor: depth to rock	Improbable: small stones	Improbable: thin layer	Poor: slope small stones
Hackwood-----	Fair: shrink-swell slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
312: Harcany-----	Poor: slope	Improbable: small stones	Probable	Poor: area reclaim slope small stones
Hackwood-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Cleavage-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
321: Humboldt-----	Poor: low strength wetness	Improbable: excess fines	Improbable: excess fines	Poor: too clayey wetness
322: Humboldt-----	Poor: low strength wetness	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey wetness
325: Humboldt-----	Poor: low strength wetness	Improbable: excess fines	Improbable: excess fines	Poor: too clayey wetness
Wendane-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
330: McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
331: McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
333: McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
Shabliss-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
335: McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
338: McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
Pumper-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
Whirlo-----	Good	Probable	Probable	Poor: area reclaim small stones
340: Boger-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones depth to rock
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
342: Boger-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones depth to rock
Goosel-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
343: Boger-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones depth to rock
351: Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
Prideen-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Playas-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey wetness
352: Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Kleck-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: depth to rock
Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
360: Needle Peak----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
363: Needle Peak----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
Batan-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
Goldrun-----	Fair: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope too sandy
370: Wieland-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Wieland-----	Fair: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
380: Bullump-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
381: Bullump-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Hackwood-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
391: Aycab-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
403: Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
406: Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
407: Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
409: Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
410: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
411: Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
Dugchip-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim excess sodium small stones
417: Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
420: Bubus-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
431: Preble-----	Good	Probable	Improbable: too sandy	Poor: excess salt
432: Preble-----	Good	Probable	Improbable: too sandy	Poor: excess salt
Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
Playas-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey wetness
435: Preble-----	Good	Probable	Improbable: too sandy	Poor: excess salt
436: Preble-----	Good	Probable	Improbable: too sandy	Poor: excess salt
Valmy-----	Good	Probable	Probable	Poor: area reclaim small stones
Valmy-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones
437: Preble-----	Good	Probable	Improbable: too sandy	Poor: excess salt

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
438: Preble-----	Good	Probable	Improbable: too sandy	Poor: excess salt
Bubus-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
440: Prideen-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
441: Prideen-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
452: Kingsriver-----	Fair: wetness	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones
453: Kingsriver-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones
460: Rad-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
461: Rad-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
462: Rad-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
470: Raglan-----	Fair: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
471: Raglan-----	Fair: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
474: Raglan-----	Fair: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: excess salt

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Kleck-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: depth to rock
480: Rebel-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
487: Rebel-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
490: Rose Creek-----	Fair: wetness	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
491: Rose Creek-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
492: Rose Creek-----	Fair: wetness	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
501: Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
502: Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
503: Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones thin layer
504: Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones thin layer
Shabliss-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
505: Enko-----	Good	Probable	Probable	Fair: area reclaim small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
507: Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones thin layer
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
Shabliss-----	Fair: slope	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan slope
511: Mazuma-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
Trocken-----	Fair: large stones	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones
520: Lunder-----	Poor: cemented pan low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan large stones too clayey
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
522: Lunder-----	Poor: cemented pan low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey
Hunnton-----	Poor: cemented pan low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
530: Shabliss-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
532: Shabliss-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones thin layer
Valmy-----	Good	Probable	Probable	Poor: area reclaim small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
533: Shabliss-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
534: Shabliss-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Puett-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
536: Shabliss-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones thin layer
Dugchip-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim excess sodium small stones
537: Shabliss-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: slope
Genaw-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
543: Pumper-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
544: Pumper-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
545: Dun Glen-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
Pumper-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
551: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Carstump-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
552: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
553: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Tusk-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
555: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Tusel-----	Fair: shrink-swell thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Alyan-----	Poor: shrink-swell slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
557: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
558: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
559: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
561: Sonoma-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
562: Sonoma-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
563: Sonoma-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt too clayey
564: Sonoma-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt too clayey
566: Sonoma-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt too clayey
Paranat-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt too clayey
567: Sonoma-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
573: Spinlin-----	Poor: shrink-swell slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Harcany-----	Poor: slope	Probable	Probable	Poor: area reclaim slope small stones
Hackwood-----	Fair: shrink-swell slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
574: Spinlin-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Hackwood-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Tusel-----	Fair: shrink-swell thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
580: Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Softscrabble----	Fair: large stones slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
581: Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Gosumi-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
Nomara-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
582: Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
583: Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Gosumi-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Harcany-----	Poor: slope	Probable	Probable	Poor: area reclaim slope small stones
584: Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
585: Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
586: Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Rubble land----	Poor: large stones slope	Improbable: large stones small stones	Improbable: large stones	Poor: area reclaim slope small stones
Reluctan-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
587: Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Gosumi-----	Fair: shrink-swell thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Harcany-----	Poor: slope	Probable	Probable	Poor: area reclaim slope small stones
588: Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Cleavage-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Rubble land----	Poor: large stones slope	Improbable: large stones small stones	Improbable: large stones	Poor: area reclaim slope small stones
589: Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Harcany-----	Poor: slope	Probable	Probable	Poor: area reclaim slope small stones
590: Trunk-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Madeline-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
592: Trunk-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Pocan-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
593: Trunk-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Panlee-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
594: Burrита-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Trunk-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Quomus-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
596: Trunk-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Burrита-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
597: Trunk-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Burrита-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: small stones depth to rock
Burrита-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
600: Valmy-----	Good	Probable	Probable	Poor: area reclaim small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
603: Valmy-----	Good	Probable	Probable	Poor: area reclaim small stones
Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
604: Valmy-----	Good	Probable	Probable	Poor: area reclaim small stones
Bubus-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Needle Peak-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
606: Valmy-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones
611: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
613: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
Shabliss-----	Fair: slope	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan slope
614: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim excess salt small stones
615: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones
617: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
618: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
Kelk-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt
619: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
Rebel-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
620: Carstump-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
631: Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Panlee-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
633: Burrita-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: small stones depth to rock
Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey
634: Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Zymans-----	Poor: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
636: Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Rubble land----	Poor: large stones slope	Improbable: large stones small stones	Improbable: large stones	Poor: area reclaim slope small stones
Clementine-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Good
637: Burrita-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: small stones depth to rock
Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Burrita-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
638: Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Panlee-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
640: Clementine-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Good
641: Clementine-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Good

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Paranat-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
642: Clementine-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt
Rose Creek-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones too sandy
646: Clementine-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt
Paranat-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
651: Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Atlow-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
652: Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Havingdon-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Reluctan-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
653: Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Vanwyper-----	Poor: low strength slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Havingdon-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
654: Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Panlee-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
655: Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Hoot-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
657: Burrita-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Snowmore-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
658: Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Panlee-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
660: Beoska-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim excess salt small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Oxcorel-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
Whirlo-----	Good	Probable	Probable	Poor: area reclaim small stones
661: Oxcorel-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones
663: Oxcorel-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
Beoska-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim excess salt small stones
664: Oxcorel-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
Golconda-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium
665: Oxcorel-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
669: Oxcorel-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
670: Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Goosel-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
671: Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Burrita-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
673: Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
676: Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Snowmore-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey
677: Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
678: Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Rubble land-----	Poor: large stones slope	Improbable: large stones small stones	Improbable: large stones	Poor: area reclaim slope small stones
680: Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Trunk-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
690: Sodhouse-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim cemented pan small stones
Golconda-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
691: Sodhouse-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
700: Atlow-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Gowjai-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
701: Atlow-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Wiskan-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
704: Atlow-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Hoot-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Atlow-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
710: Xipe-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones
720: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Sodhouse-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
721: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Laped-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
722: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Burrita-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: small stones depth to rock
Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
724: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Hoot-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
726: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
727: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
728: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
729: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Boger-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones depth to rock
732: Kelk-----	Fair: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Kelk-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt
733: Kelk-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt
Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
734: Kelk-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt
736: Kelk-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt
Kortty-----	Fair: thin layer	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones
740: Gowjai-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
750: Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
Oxcorel-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
751: Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
Sodhouse-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim cemented pan
752: Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
753: Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
Dugchip-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim excess sodium small stones
Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
754: Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Puett-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
755: Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
756: Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
Adelaide-----	Good	Improbable: small stones	Probable	Poor: area reclaim cemented pan small stones
McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
760: Piline-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: too clayey wetness
Piline-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: too clayey wetness
761: Piline-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: too clayey wetness
772: Broyles-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt small stones
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
773: Broyles-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
774: Broyles-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt small stones
775: Broyles-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt small stones
Bubus-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
780: Dacker-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
781: Dacker-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Bilbo-----	Fair: slope	Probable	Probable	Poor: area reclaim small stones too clayey
782: Dacker-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Snowmore-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
790: Rio King-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
791: Rio King-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
800: Udelope-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Bregar-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
801: Udelope-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Hackwood-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
810: Batan-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
811: Batan-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
Batan-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
813: Batan-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
815: Batan-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
Frideen-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Wendane-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
818: Batan-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
Bubus-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Goldrun-----	Fair: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope too sandy
823: Whirlo-----	Good	Probable	Probable	Poor: area reclaim small stones
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
Snapp-----	Good	Probable	Probable	Poor: area reclaim small stones too clayey
825: Whirlo-----	Good	Probable	Probable	Poor: area reclaim small stones
Oxcorel-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
831: Boton-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Playas-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey wetness
833: Boton-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Isolde-----	Good	Probable	Improbable: too sandy	Poor: too sandy
Boton-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
834: Boton-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
840: Dugchip-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim excess sodium small stones
Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
842: Dugchip-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim excess sodium small stones
Kelk-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt
844: Dugchip-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim excess sodium small stones
Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
845: Dugchip-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim excess salt small stones
Needle Peak----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
860: Goosel-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
861: Goosel-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
862: Goosel-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Goosel-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
863: Goosel-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey
880: Cleavage-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Harcany-----	Poor: slope	Improbable: small stones	Probable	Poor: area reclaim slope small stones
881: Cleavage-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Bregar-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
882: Cleavage-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
883: Cleavage-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Tusel-----	Fair: shrink-swell thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
884: Cleavage-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
885: Cleavage-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Cleavage-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Reluctan-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
886: Cleavage-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Bullump-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
891: Softscrabble----	Fair: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Cleavage-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Harcany-----	Poor: slope	Improbable: small stones	Probable	Poor: area reclaim slope small stones
892: Softscrabble----	Fair: large stones slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Cleavage-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
900: Roca-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Bregar-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Linrose-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
901: Roca-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Reluctan-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
902: Roca-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Alyan-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Quomus-----	Fair: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
903: Roca-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Walti-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Reluctan-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
907: Roca-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Climine-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
909: Roca-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Nomara-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
911: Barnard-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
Barnard-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim large stones too clayey
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
921: Walti-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Reluctan-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
922: Walti-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Reluctan-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Tusel-----	Fair: shrink-swell thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones
923: Walti-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Tusel-----	Fair: shrink-swell thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
924: Walti-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Tusk-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Alyan-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
930: Tenabo-----	Poor: cemented pan	Probable	Probable	Poor: cemented pan small stones too sandy
Oxcorel-----	Fair: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey
940: Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
941: Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
942: Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
943: Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
944: Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
946: Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Rubble land-----	Poor: large stones slope	Improbable: large stones small stones	Improbable: large stones	Poor: area reclaim slope small stones
947: Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
954: Puffer-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Xine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
955: Puffer-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
960: Zevadex-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
Wieland-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Kelk-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt
962: Zevadex-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: slope small stones
Vanwyper-----	Poor: low strength slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones too clayey
963: Zevadex-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones
McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
964: Zevadex-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
970: Gosumi-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Walti-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
980: Snowmore-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Snowmore-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
981: Snowmore-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Zevadex-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
Snowmore-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
983: Snowmore-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
984: Snowmore-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
990: Playas-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey wetness
994: Dune Land-----	Fair: slope	Probable	Improbable: too sandy	Poor: slope too sandy

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
995: Dune Land-----	Fair: slope	Probable	Improbable: too sandy	Poor: slope too sandy
Goldrun-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Davey-----	Fair: thin layer	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
998: Dumps-----	Poor: large stones slope	Improbable: large stones	Improbable: large stones	Poor: area reclaim slope small stones
Pits-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: depth to rock
999: Slickens-----	Poor: thin layer	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
1004: Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Davey-----	Fair: thin layer	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
1005: Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1007: Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Puett-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Burrita-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
1010: Bartome-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
1020: Wholan-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
1023: Wholan-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones thin layer
1025: Wholan-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
1030: Bullump-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Westbutte-----	Poor: large stones slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope
Harcany-----	Poor: slope	Improbable: small stones	Probable	Poor: area reclaim slope small stones
1031: Bullump-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Cleavage-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1050: Argenta-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
1051: Argenta-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
Preble-----	Good	Probable	Improbable: too sandy	Poor: excess salt
1052: Argenta-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
Preble-----	Good	Probable	Improbable: too sandy	Poor: excess salt
1055: Argenta-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
1060: Paranat-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
1061: Paranat-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
1064: Paranat-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
Paranat-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt too clayey
1066: Paranat-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
1067: Paranat-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1072: Hoot-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Laped-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Rubble land----	Poor: large stones slope	Improbable: large stones small stones	Improbable: large stones	Poor: area reclaim slope small stones
1075: Hoot-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Panlee-----	Fair: large stones thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1077: Hoot-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1078: Hoot-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Genaw-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
1090: Soolake-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
Argenta-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1100: Wendane-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
1101: Wendane-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
1102: Wendane-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
Wendane-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
1104: Wendane-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess sodium excess salt
Sonoma-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: too clayey
1110: Theon-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1120: Relley-----	Fair: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Fair: thin layer
Kelk-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Fair: excess salt
1140: Layview-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Tusel-----	Poor: large stones slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Layview-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
1142: Layview-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Udelope-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1150: Cotant-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Say-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Cotant-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1151: Cotant-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope too clayey depth to rock
Say-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Gol-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1160: Hawsley-----	Good	Probable	Improbable: too sandy	Poor: too sandy
1161: Hawsley-----	Good	Probable	Improbable: too sandy	Poor: too sandy
Isolde-----	Good	Probable	Improbable: too sandy	Poor: too sandy
1162: Hawsley-----	Good	Probable	Improbable: too sandy	Poor: too sandy
Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Mazuma-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy
1167: Hawsley-----	Good	Probable	Improbable: too sandy	Poor: too sandy

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1168: Hawsley-----	Good	Probable	Improbable: too sandy	Poor: too sandy
Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Essal-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
1169: Hawsley-----	Good	Probable	Improbable: too sandy	Poor: too sandy
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Panlee-----	Fair: large stones thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1170: Hunnton-----	Poor: cemented pan low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Trunk-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
1171: Hunnton-----	Poor: cemented pan	Improbable: small stones	Probable	Poor: area reclaim small stones too clayey
Dugchip-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim excess sodium small stones
Orovada-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones thin layer
1172: Flue-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Hunnton-----	Poor: cemented pan	Improbable: small stones	Probable	Poor: area reclaim small stones too clayey
McConnel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
1173: Hunnton-----	Poor: cemented pan	Improbable: small stones	Probable	Poor: area reclaim small stones too clayey
1174: Hunnton-----	Poor: cemented pan	Improbable: small stones	Probable	Poor: area reclaim small stones too clayey
Zevades-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: small stones
Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones thin layer
1175: Hunnton-----	Poor: cemented pan low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Goosel-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
1176: Hunnton-----	Poor: cemented pan low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Hunnton-----	Poor: cemented pan low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Dacker-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1180: Rocconda-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Hoot-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1181: Rocconda-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Hoot-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Soughe-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1184: Rocconda-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Panlee-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1185: Rocconda-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Quomus-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Atlow-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1186: Rocconda-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Burrita-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey
1187: Rocconda-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Panlee-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Hoot-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1188: Rocconda-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Rocconda-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1189: Rocconda-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1192: Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones thin layer
1194: Enko-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: excess salt small stones thin layer

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1200: Erakatak-----	Poor: low strength slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones too clayey
Madeline-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
1201: Erakatak-----	Poor: low strength slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones too clayey
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Harcany-----	Poor: slope	Probable	Probable	Poor: area reclaim slope small stones
1202: Erakatak-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Bullump-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1210: Cresal-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Playas-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey wetness
1211: Cresal-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
1212: Cresal-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Tresed-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Playas-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey wetness
1221: Alyan-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Bilbo-----	Fair: slope	Probable	Probable	Poor: area reclaim small stones too clayey
1230: Knott-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim cemented pan small stones
Sodhouse-----	Poor: cemented pan	Probable	Probable	Poor: area reclaim cemented pan small stones
Wholan-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
1240: Laped-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
1241: Laped-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Boger-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones depth to rock
1255: Dutchjohn-----	Fair: thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones
Cleavage-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Bregar-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1260: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
Trocken-----	Fair: large stones	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones
1271: Gol-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Say-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
1285: Igdell-----	Poor: cemented pan low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Gochea-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones
1291: Tresed-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
Isolde-----	Good	Probable	Improbable: too sandy	Poor: too sandy
1292: Tresed-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
1310: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Tenabo-----	Poor: cemented pan	Probable	Probable	Poor: cemented pan small stones too sandy
1312: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Dacker-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: small stones
Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
1313: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Sodhouse-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey
1314: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Zevadez-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones
1315: Dewar-----	Poor: cemented pan low strength	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones
Chiara-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan
Burrita-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
1321: Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Vanwyper-----	Poor: low strength slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1322: Vanwyper-----	Poor: low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
1324: Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Gowjai-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Panlee-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1327: Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
Gowjai-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1331: Siscab-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Aycab-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Ola-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1332: Siscab-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Ola-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
1333: Siscab-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Say-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
1334: Siscab-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Eaglerock-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
1335: Siscab-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Westbutte-----	Poor: large stones slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope
1341: Longcreek-----	Poor: low strength slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: large stones too clayey depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Menbo-----	Poor: shrink-swell slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
1342: Longcreek-----	Poor: low strength slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: large stones too clayey depth to rock
1344: Longcreek-----	Poor: low strength slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: large stones too clayey depth to rock
Softscrabble----	Poor: large stones slope	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: area reclaim large stones slope
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1345: Longcreek-----	Poor: low strength slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Zymans-----	Poor: low strength shrink-swell slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
1360: Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey
Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1362: Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey
Midraw-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: cemented pan small stones too clayey
Hunnton-----	Poor: cemented pan	Improbable: small stones	Probable	Poor: area reclaim small stones too clayey
1371: Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey
1373: Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Zymans-----	Poor: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1380: Genaw-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Rocconda-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1381: Genaw-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Trunk-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1382: Genaw-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Puett-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1390: Mulhop-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Xine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
1400: Madeline-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Vanwyper-----	Poor: low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones too clayey
1410: Say-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Tosp-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Aycab-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
1411: Say-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Aycab-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
1420: Panlee-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Panlee-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Burrita-----	Poor: depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
1421: Panlee-----	Fair: large stones thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1423: Panlee-----	Fair: large stones thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Vanwyper-----	Poor: large stones low strength depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Carstump-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
1431: Hunton-----	Poor: cemented pan low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Rodock-----	Good	Probable	Probable	Poor: area reclaim small stones
1432: Rodock-----	Good	Probable	Probable	Poor: area reclaim small stones
Connel-----	Good	Probable	Probable	Poor: area reclaim small stones too sandy
1433: Rodock-----	Good	Probable	Probable	Poor: area reclaim small stones
1436: Rodock-----	Good	Probable	Probable	Poor: area reclaim small stones
1437: Rodock-----	Good	Probable	Probable	Poor: area reclaim small stones
1450: Wiskan-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Climine-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1460: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Reluctan-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones
1461: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Tusel-----	Fair: shrink-swell thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Alyan-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
1462: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1464: Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1465: Cleavage-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1466: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Bullump-----	Fair: slope thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Tusel-----	Fair: shrink-swell thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1467: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Udelope-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1468: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Softscrabble---	Fair: large stones slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1469: Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Softscrabble----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Sumine-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
1470: Zymans-----	Poor: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1471: Zymans-----	Poor: low strength shrink-swell slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Burrita-----	Poor: large stones slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
Soughe-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1472: Zymans-----	Poor: low strength shrink-swell slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Zymans-----	Poor: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Burrita-----	Poor: slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: slope small stones depth to rock
1473: Zymans-----	Poor: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Genaw-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
1480: Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1481: Cleavage-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1482: Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Layview-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1483: Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Hackwood-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Spinlin-----	Poor: shrink-swell slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1484: Tusel-----	Poor: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Ninemile-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Cleavage-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1500: Eaglerock-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones
Acrelane-----	Poor: slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
1520: Croesus-----	Poor: slope depth to rock	Improbable: small stones	Improbable: thin layer	Poor: slope small stones
1521: Croesus-----	Poor: depth to rock	Improbable: small stones	Improbable: thin layer	Poor: slope small stones
1522: Croesus-----	Poor: slope depth to rock	Improbable: small stones	Improbable: thin layer	Poor: slope small stones
Harcany-----	Poor: slope	Probable	Probable	Poor: area reclaim slope small stones
1523: Croesus-----	Poor: depth to rock	Improbable: small stones	Improbable: thin layer	Poor: slope small stones

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Udelope-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones depth to rock
Layview-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
1524: Croesus-----	Poor: depth to rock	Improbable: small stones	Improbable: thin layer	Poor: small stones
Spinlin-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
1530: Westbutte-----	Poor: large stones slope depth to rock	Improbable: large stones excess fines	Improbable: large stones excess fines	Poor: large stones slope
1540: Locane-----	Poor: depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1551: Charwell-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Anawalt-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1560: Menbo-----	Poor: shrink-swell slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
1561: Menbo-----	Poor: shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Madeline-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones depth to rock
Tusel-----	Fair: shrink-swell thin layer depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
1562: Devada-----	Poor: low strength shrink-swell depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
Menbo-----	Poor: shrink-swell slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: slope small stones too clayey
Longcreek-----	Poor: low strength slope depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey depth to rock
1570: Delvada-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: too clayey wetness
1572: Delvada-----	Poor: low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too clayey
1579: Delvada-----	Poor: low strength shrink-swell wetness	Improbable: excess fines	Improbable: excess fines	Poor: too clayey wetness
1580: Isolde-----	Fair: slope	Probable	Improbable: too sandy	Poor: slope too sandy
Essal-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: thin layer
Essal-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt too sandy

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1594: Boton-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
Boton-----	Poor: low strength	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
1600: Clurde-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: small stones
1610: Gochea-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim small stones
Gochea-----	Fair: slope	Improbable: excess fines	Improbable: excess fines	Poor: area reclaim slope small stones
Igdell-----	Poor: cemented pan low strength shrink-swell	Improbable: excess fines	Improbable: excess fines	Poor: small stones too clayey
1620: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
1621: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
Wholan-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt
1622: Weso-----	Good	Improbable: excess fines	Improbable: excess fines	Fair: area reclaim excess salt small stones
Davey-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: too sandy
Broyles-----	Good	Improbable: excess fines	Improbable: excess fines	Poor: excess salt small stones
1630: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer

TABLE 10--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
1631: Bliss-----	Poor: cemented pan	Improbable: excess fines	Improbable: excess fines	Fair: cemented pan small stones thin layer
1640: Kleck-----	Poor: low strength depth to rock	Improbable: excess fines	Improbable: excess fines	Poor: depth to rock
1650: Water-----	---	---	---	---
1651: Miscellaneous Water-----	---	---	---	---



TABLE 11.--WATER MANAGEMENT

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Limitations for--			Features affecting		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
100: Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Alyan-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
101: Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Alyan-----	Moderate: slope depth to rock	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly depth to rock
102: Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Tusk-----	Severe: slope	Slight	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: slope
106: Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
122: Bregar-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
131: Benin-----	Slight	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt percs slowly	Limitation: erodes easily percs slowly
133: Benin-----	Slight	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt percs slowly	Limitation: erodes easily percs slowly
141: Beoska-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: excess sodium excess salt slope	Limitation: erodes easily
Bluewing-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Limitation: large stones too sandy
143: Beoska-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
Broyles-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
144: Beoska-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess sodium soil blowing	Limitation: erodes easily soil blowing
Dun Glen-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
145: Beoska-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: excess sodium excess salt slope	Limitation: erodes easily
Beoska-----	Severe: seepage slope	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: excess sodium excess salt slope	Limitation: erodes easily slope
Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily too sandy soil blowing
151: Blackhawk-----	Severe: cemented pan seepage	Severe: excess salt seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt cemented pan	Limitation: erodes easily cemented pan too sandy
152: Blackhawk-----	Severe: cemented pan seepage	Severe: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan too sandy
154: Blackhawk-----	Severe: cemented pan seepage	Severe: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan soil blowing	Limitation: erodes easily cemented pan too sandy
Golconda-----	Moderate: cemented pan slope	Severe: excess sodium excess salt	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan percs slowly
Orovada-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
155: Blackhawk-----	Severe: cemented pan seepage	Severe: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake cemented pan soil blowing	Limitation: erodes easily cemented pan too sandy
156: Blackhawk-----	Severe: cemented pan seepage	Severe: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan soil blowing	Limitation: erodes easily cemented pan too sandy
Clurde-----	Severe: seepage	Slight	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
157: Blackhawk-----	Severe: cemented pan seepage	Severe: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan too sandy
Broyles-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
158: Blackhawk-----	Severe: cemented pan seepage	Severe: excess salt seepage	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope droughty	Limitation: erodes easily cemented pan too sandy
Trocken-----	Moderate: seepage	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones droughty	Limitation: large stones too sandy
160: Bliss-----	Moderate: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
161: Bliss-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
Chiara-----	Severe: cemented pan slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
163: Bliss-----	Moderate: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Shabliss-----	Severe: cemented pan seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
165: Bliss-----	Moderate: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Dugchip-----	Moderate: cemented pan slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt slope	Limitation: erodes easily
166: Bliss-----	Moderate: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Orovada-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
Shabliss-----	Severe: cemented pan seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: excess salt cemented pan soil blowing	Limitation: erodes easily cemented pan soil blowing
167: Bliss-----	Moderate: cemented pan seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan soil blowing	Limitation: erodes easily cemented pan soil blowing
Blackhawk-----	Severe: cemented pan seepage	Severe: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan too sandy
Adelaide-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
169: Bliss-----	Moderate: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt slope	Limitation: erodes easily
171: Bubus-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
174: Bubus-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Needle Peak-----	Slight	Moderate: piping	Severe: slow refill	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
178: Bubus-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
Preble-----	Severe: seepage	Severe: piping	Severe: slow refill cutbanks cave	Limitation: deep to water	Limitation: percs slowly rooting depth soil blowing	Limitation: erodes easily percs slowly soil blowing
184: Chiara-----	Severe: cemented pan slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: erodes easily cemented pan slope
McConnel-----	Severe: seepage	Severe: excess salt seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
185: Chiara-----	Severe: cemented pan	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Dacker-----	Moderate: cemented pan seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
McConnel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: droughty	Limitation: too sandy
186: Chiara-----	Severe: cemented pan	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Hunnton-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan slope
187: Chiara-----	Severe: cemented pan	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: erodes easily cemented pan

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Boger-----	Severe: cemented pan slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Chiara-----	Severe: cemented pan	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan soil blowing	Limitation: erodes easily cemented pan soil blowing
188: Chiara-----	Severe: cemented pan slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: cemented pan large stones slope
Chiara-----	Severe: cemented pan	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: erodes easily cemented pan
190: Beeox-----	Severe: seepage	Severe: excess sodium piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly rooting depth slope	Limitation: erodes easily
Oxcorel-----	Severe: seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: excess sodium percs slowly slope	Favorable
191: Beeox-----	Severe: seepage	Severe: excess sodium piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly rooting depth soil blowing	Limitation: erodes easily soil blowing
Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: droughty	Limitation: too sandy
192: Beeox-----	Severe: seepage	Severe: excess sodium piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily soil blowing
Bliss-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
200: Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
201: Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
202: Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake soil blowing droughty	Limitation: too sandy soil blowing
203: Davey-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Goldrun-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
204: Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Blackhawk-----	Severe: cemented pan seepage	Severe: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: erodes easily cemented pan too sandy
205: Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Hawsley-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
206: Broyles-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Dun Glen-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
207: Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Pumper-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
208: Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: soil blowing droughty	Limitation: too sandy soil blowing
210: Flue-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan percs slowly	Limitation: erodes easily cemented pan percs slowly
Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: droughty	Limitation: too sandy
211: Flue-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Golconda-----	Moderate: cemented pan slope	Severe: excess sodium excess salt	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan percs slowly
Snapp-----	Severe: slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily slope too sandy
212: Flue-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan percs slowly
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
213: Flue-----	Severe: seepage slope	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan slope

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Puett-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
215: Flue-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan percs slowly
Snapp-----	Moderate: seepage slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
Snapp-----	Severe: seepage slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: slope too sandy
216: Flue-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan soil blowing
217: Flue-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan percs slowly	Limitation: erodes easily cemented pan percs slowly
218: Flue-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan percs slowly
Rodock-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt slope droughty	Limitation: too sandy
Snapp-----	Moderate: seepage slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
222: Bloor-----	Moderate: seepage	Severe: excess sodium excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily percs slowly soil blowing	Limitation: erodes easily soil blowing
231: Dun Glen-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
233: Dun Glen-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: soil blowing	Limitation: erodes easily soil blowing
241: Sojur-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
250: Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: too sandy soil blowing
Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Goldrun-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
251: Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
252: Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: droughty	Limitation: too sandy
253: Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily too sandy soil blowing
McConnel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily flooding droughty	Limitation: erodes easily too sandy
254: Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
Zevadez-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly rooting depth slope	Limitation: erodes easily percs slowly slope

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
255: Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily too sandy soil blowing
McConnel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: droughty	Limitation: too sandy
257: Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily too sandy soil blowing
258: Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily too sandy soil blowing
262: Golconda-----	Moderate: cemented pan slope	Severe: excess sodium excess salt	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan percs slowly
Snapp-----	Severe: slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: erodes easily slope too sandy
263: Bliss-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
Golconda-----	Severe: slope	Severe: excess sodium excess salt	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan slope
Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
270: Goldrun-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
271: Goldrun-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake soil blowing droughty	Limitation: too sandy soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
272: Goldrun-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
274: Goldrun-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Benin-----	Slight	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt percs slowly	Limitation: erodes easily percs slowly
275: Goldrun-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Preble-----	Severe: seepage	Severe: piping	Severe: slow refill cutbanks cave	Limitation: deep to water	Limitation: percs slowly rooting depth soil blowing	Limitation: erodes easily percs slowly soil blowing
281: Golsum-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Harcany-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: large stones slope
Spinlin-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
290: Havingdon-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope depth to rock
Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
292: Havingdon-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Gowjai-----	Severe: seepage slope	Moderate: seepage piping thin layer	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Limitation: large stones slope
Walti-----	Severe: slope	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
302: Essal-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily rooting depth soil blowing	Limitation: erodes easily too sandy soil blowing
Isolde-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Playas-----	Slight	Severe: excess salt hard to pack ponding	Severe: slow refill salty water	Limitation: flooding percs slowly ponding	Limitation: percs slowly ponding droughty	Limitation: percs slowly ponding
305: Essal-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake rooting depth soil blowing	Limitation: erodes easily too sandy soil blowing
Isolde-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Hawsley-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake soil blowing droughty	Limitation: too sandy soil blowing
307: Essal-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake rooting depth soil blowing	Limitation: erodes easily too sandy soil blowing
Isolde-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Tresed-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: fast intake percs slowly soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
311: Harcany-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope	Limitation: large stones slope
Croesus-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Hackwood-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope
Cumelic Haplaquolls----	---	---	---	---	---	---
312: Harcany-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: large stones slope
Hackwood-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope
Cleavage-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
321: Humboldt-----	Slight	Severe: hard to pack wetness	Severe: slow refill	Limitation: flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
322: Humboldt-----	Slight	Severe: excess salt hard to pack wetness	Severe: slow refill salty water	Limitation: excess salt flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
325: Humboldt-----	Slight	Severe: hard to pack wetness	Severe: slow refill	Limitation: flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
Wendane-----	Moderate: seepage	Severe: excess sodium excess salt	Severe: slow refill salty water	Limitation: excess sodium excess salt frost action	Limitation: erodes easily excess sodium wetness	Limitation: erodes easily wetness
330: McConnel-----	Severe: seepage	Severe: excess salt seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily too sandy soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
331: McConnel-----	Severe: seepage	Severe: excess salt seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt slope droughty	Limitation: too sandy
333: McConnel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: erodes easily too sandy soil blowing
Shabliss-----	Severe: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
335: McConnel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: droughty	Limitation: too sandy
338: McConnel-----	Severe: seepage	Severe: excess salt seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt slope droughty	Limitation: too sandy
Pumper-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
Whirlo-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt slope droughty	Favorable
340: Boger-----	Severe: cemented pan depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: cemented pan large stones depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
342: Boger-----	Severe: cemented pan depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: cemented pan large stones depth to rock
Goosel-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: cemented pan slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
343: Boger-----	Severe: cemented pan depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: cemented pan large stones depth to rock
351: Goldrun-----	Severe: seepage slope	Severe: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Prideen-----	Slight	Severe: excess salt piping	Severe: slow refill salty water	Limitation: excess salt frost action	Limitation: fast intake wetness soil blowing	Limitation: erodes easily wetness soil blowing
Playas-----	Slight	Severe: excess salt hard to pack ponding	Severe: slow refill salty water	Limitation: flooding percs slowly ponding	Limitation: percs slowly ponding droughty	Limitation: erodes easily percs slowly ponding
352: Goldrun-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Kleck-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: fast intake soil blowing depth to rock	Limitation: erodes easily soil blowing depth to rock
Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
360: Needle Peak-----	Slight	Moderate: piping	Severe: slow refill	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
363: Needle Peak-----	Slight	Moderate: piping	Severe: slow refill	Limitation: deep to water	Limitation: excess salt soil blowing	Limitation: erodes easily soil blowing
Batan-----	Slight	Severe: excess salt	Severe: no water	Limitation: deep to water	Limitation: excess salt fast intake soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Goldrun-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
370: Wieland-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily soil blowing
Wieland-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: slope
380: Bullump-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Limitation: large stones slope
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
381: Bullump-----	Severe: slope	Moderate: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: slope
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Hackwood-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope
391: Aycab-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
403: Orovada-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
406: Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
407: Orovada-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
409: Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
Goldrun-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
410: Bliss-----	Moderate: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: erodes easily soil blowing
411: Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
Dugchip-----	Moderate: cemented pan slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
417: Orovada-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: soil blowing droughty	Limitation: too sandy soil blowing
420: Bubus-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
431: Preble-----	Severe: seepage	Severe: excess salt piping	Severe: slow refill cutbanks cave	Limitation: deep to water	Limitation: percs slowly rooting depth soil blowing	Limitation: erodes easily percs slowly soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
432: Preble-----	Severe: seepage	Severe: excess salt piping	Severe: slow refill cutbanks cave	Limitation: deep to water	Limitation: erodes easily percs slowly rooting depth	Limitation: erodes easily percs slowly
Goldrun-----	Severe: seepage slope	Severe: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Playas-----	Slight	Severe: excess salt hard to pack ponding	Severe: slow refill salty water	Limitation: flooding percs slowly ponding	Limitation: percs slowly ponding droughty	Limitation: percs slowly ponding
435: Preble-----	Severe: seepage	Severe: excess salt piping	Severe: slow refill cutbanks cave	Limitation: deep to water	Limitation: erodes easily percs slowly rooting depth	Limitation: erodes easily percs slowly
436: Preble-----	Severe: seepage	Severe: piping	Severe: slow refill cutbanks cave	Limitation: deep to water	Limitation: percs slowly rooting depth soil blowing	Limitation: erodes easily percs slowly soil blowing
Valmy-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: soil blowing
Valmy-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily soil blowing
437: Preble-----	Severe: seepage	Severe: excess salt piping	Severe: slow refill cutbanks cave	Limitation: deep to water	Limitation: percs slowly rooting depth soil blowing	Limitation: erodes easily percs slowly soil blowing
Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
438: Preble-----	Severe: seepage	Severe: excess salt piping	Severe: slow refill cutbanks cave	Limitation: deep to water	Limitation: percs slowly rooting depth soil blowing	Limitation: erodes easily percs slowly soil blowing
Bubus-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
440: Prideen-----	Slight	Severe: excess salt piping	Severe: slow refill salty water	Limitation: excess salt frost action	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily wetness
441: Prideen-----	Slight	Severe: excess salt piping	Severe: slow refill salty water	Limitation: excess salt frost action	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily wetness
452: Kingsriver-----	Moderate: seepage	Severe: piping wetness	Moderate: slow refill	Limitation: flooding frost action	Limitation: excess salt flooding wetness	Limitation: wetness
453: Kingsriver-----	Moderate: seepage	Severe: piping	Moderate: slow refill deep to water	Limitation: deep to water	Limitation: excess salt flooding	Favorable
Kingsriver-----	---	---	---	---	---	---
Typic Fluvaquents----	---	---	---	---	---	---
460: Rad-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: erodes easily soil blowing
461: Rad-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily percs slowly soil blowing	Limitation: erodes easily soil blowing
462: Rad-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily soil blowing
470: Raglan-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
471: Raglan-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
474: Raglan-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
Kleck-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing depth to rock	Limitation: erodes easily soil blowing depth to rock
480: Rebel-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily	Limitation: erodes easily
487: Rebel-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: soil blowing	Limitation: soil blowing
490: Rose Creek----	Severe: seepage	Severe: piping wetness	Severe: cutbanks cave	Limitation: flooding frost action cutbanks cave	Limitation: erodes easily flooding wetness	Limitation: erodes easily too sandy wetness
Humboldt-----	---	---	---	---	---	---
491: Rose Creek----	Severe: seepage	Severe: excess salt piping	Severe: salty water cutbanks cave	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily too sandy
492: Rose Creek----	Severe: seepage	Severe: piping wetness	Severe: cutbanks cave	Limitation: flooding frost action cutbanks cave	Limitation: erodes easily flooding wetness	Limitation: erodes easily too sandy wetness
Humboldt-----	---	---	---	---	---	---
501: Enko-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake percs slowly soil blowing	Limitation: erodes easily percs slowly soil blowing
502: Enko-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: erodes easily percs slowly soil blowing
Goldrun-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
503: Enko-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily percs slowly soil blowing	Limitation: erodes easily soil blowing
504: Enko-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily soil blowing
Shabliss-----	Severe: cemented pan seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
505: Enko-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily percs slowly soil blowing
507: Enko-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily soil blowing
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
Shabliss-----	Severe: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
511: Mazuma-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily too sandy soil blowing
Trocken-----	Moderate: seepage slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones too sandy
520: Lunder-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: cemented pan large stones percs slowly
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
522: Lunder-----	Severe: cemented pan	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: cemented pan large stones percs slowly
Runnton-----	Moderate: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan percs slowly
530: Shabliss-----	Severe: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
532: Shabliss-----	Severe: cemented pan seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Enko-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily soil blowing
Valmy-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: soil blowing
533: Shabliss-----	Severe: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: too sandy soil blowing
534: Shabliss-----	Severe: cemented pan seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Puett-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
536: Shabliss-----	Severe: cemented pan seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Enko-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily soil blowing
Dugchip-----	Moderate: cemented pan slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
537: Shabliss-----	Severe: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
Bliss-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
Genaw-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock
543: Pumper-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: rooting depth soil blowing droughty	Limitation: erodes easily too sandy soil blowing
Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily too sandy soil blowing
544: Pumper-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: rooting depth slope droughty	Limitation: erodes easily too sandy
Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
545: Dun Glen-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: soil blowing	Limitation: erodes easily soil blowing
Pumper-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
551: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Carstump-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
552: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
553: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Tusk-----	Severe: slope	Slight	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: slope
555: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
563: Sonoma-----	Slight	Severe: excess salt wetness	Severe: slow refill	Limitation: excess salt flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
564: Sonoma-----	Slight	Moderate: piping wetness	Severe: slow refill	Limitation: deep to water	Limitation: erodes easily excess salt flooding	Limitation: erodes easily
566: Sonoma-----	Slight	Severe: excess salt wetness	Severe: slow refill	Limitation: excess salt flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
Paranat-----	Slight	Severe: excess salt piping wetness	Severe: slow refill salty water	Limitation: excess salt flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
567: Sonoma-----	Slight	Severe: wetness	Severe: slow refill	Limitation: flooding frost action percs slowly	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily wetness
Humboldt-----	---	---	---	---	---	---
573: Spinlin-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Harcany-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope	Limitation: large stones slope
Hackwood-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope
Cumelic Haplaquolls----	---	---	---	---	---	---
574: Spinlin-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Hackwood-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
580: Sumine-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Softscrabble----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones percs slowly slope
581: Sumine-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Gosumi-----	Severe: seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily percs slowly slope	Limitation: erodes easily percs slowly slope
Nomara-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: large stones slope depth to rock
582: Sumine-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
583: Sumine-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
587: Sumine-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Gosumi-----	Severe: seepage slope	Moderate: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope
Harcany-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: large stones slope
Cumulic Haplaquolls----	---	---	---	---	---	---
588: Sumine-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Rubble Land----	Severe: seepage slope	Severe: large stones seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
589: Sumine-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Harcany-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: large stones slope
590: Trunk-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Madeline-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
592: Trunk-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Pocan-----	Severe: slope	Moderate: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope
593: Trunk-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: erodes easily slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: erodes easily large stones slope
594: Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Trunk-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: erodes easily slope depth to rock
Quomus-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily slope soil blowing
596: Trunk-----	Severe: slope	Moderate: hard to pack large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: large stones slope depth to rock
Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
597: Trunk-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
600: Valmy-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: excess salt soil blowing droughty	Limitation: soil blowing
603: Valmy-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: excess salt soil blowing droughty	Limitation: soil blowing
Goldrun-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
604: Valmy-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily soil blowing
Bubus-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
Needle Peak-----	Slight	Moderate: piping	Severe: slow refill	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
606: Valmy-----	Severe: seepage	Moderate: seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt droughty	Limitation: erodes easily
611: Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: erodes easily too sandy soil blowing
613: Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
Shabliss-----	Severe: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
614: Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily too sandy
615: Weso-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
617: Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt slope	Limitation: erodes easily too sandy
618: Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
Kelk-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily flooding percs slowly	Limitation: erodes easily percs slowly
619: Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
Rebel-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing	Limitation: erodes easily soil blowing
620: Carstump-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
631: Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: erodes easily large stones slope
633: Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Midraw-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: cemented pan percs slowly depth to rock
Clementine-----	---	---	---	---	---	---
634: Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Zymans-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope	Limitation: percs slowly slope
636: Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Rubble Land-----	Severe: seepage slope	Severe: large stones seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Clementine-----	Slight	Moderate: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily	Limitation: erodes easily

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
637: Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan
Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
638: Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
640: Clementine-----	Slight	Moderate: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily	Limitation: erodes easily
641: Clementine-----	Slight	Moderate: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily	Limitation: erodes easily
Paranat-----	Slight	Severe: piping wetness	Severe: slow refill	Limitation: flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
642: Clementine-----	Slight	Moderate: piping wetness	Severe: slow refill	Limitation: flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
Rose Creek-----	Severe: seepage	Severe: piping	Severe: cutbanks cave	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily too sandy
646: Clementine-----	Slight	Moderate: piping wetness	Severe: slow refill	Limitation: flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Paranat-----	Slight	Severe: piping wetness	Severe: slow refill	Limitation: flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
651: Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Atlow-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
652: Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Havingdon-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope depth to rock
Reluctan-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock
653: Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Havingdon-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: large stones slope depth to rock
654: Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Panlee-----	Severe: slope	Severe: large stones seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Rock Outcrop----	---	---	---	---	---	---
655: Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Hoot-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
657: Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Snowmore-----	Moderate: cemented pan slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing depth to rock	Limitation: cemented pan soil blowing depth to rock
Rock Outcrop----	---	---	---	---	---	---
658: Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
660: Beoska-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: excess sodium excess salt slope	Limitation: erodes easily
Oxcorel-----	Severe: seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: excess sodium percs slowly slope	Favorable

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Whirlo-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt slope droughty	Favorable
661: Oxcorel-----	Severe: seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: excess sodium percs slowly slope	Favorable
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt slope	Limitation: erodes easily
663: Oxcorel-----	Severe: seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: excess sodium percs slowly slope	Favorable
Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily too sandy soil blowing
Beoska-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
664: Oxcorel-----	Severe: seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: excess sodium percs slowly slope	Favorable
Golconda-----	Moderate: cemented pan slope	Severe: excess sodium excess salt	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan percs slowly
665: Oxcorel-----	Severe: seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: excess sodium percs slowly slope	Favorable
Snapp-----	Severe: seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: too sandy
669: Oxcorel-----	Severe: seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Fond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: large stones slope depth to rock
670: Devada-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones percs slowly depth to rock
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Goosel-----	Moderate: cemented pan seepage depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan depth to rock
671: Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Rock Outcrop---	---	---	---	---	---	---
Clementine-----	---	---	---	---	---	---
673: Devada-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly depth to rock
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
676: Devada-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones percs slowly depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Snowmore-----	Moderate: cemented pan slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing depth to rock	Limitation: cemented pan soil blowing depth to rock
Midraw-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: cemented pan percs slowly depth to rock
677: Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
678: Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope depth to rock
Rubble Land----	Severe: seepage slope	Severe: large stones seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
680: Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Trunk-----	Severe: slope	Moderate: hard to pack large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
690: Sodhouse-----	Severe: cemented pan seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan too sandy

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
720: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: erodes easily cemented pan large stones
Sodhouse-----	Severe: cemented pan seepage	Moderate: seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan
721: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan
Laped-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope depth to rock	Limitation: cemented pan slope depth to rock
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
722: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: erodes easily cemented pan
Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Flue-----	Severe: seepage slope	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan slope
724: Dewar-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan slope
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: large stones slope depth to rock
Hoot-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
726: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan slope
Dewar-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: erodes easily cemented pan slope
727: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan
Midraw-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: cemented pan percs slowly depth to rock
Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
728: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan
Midraw-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: erodes easily cemented pan depth to rock
Devada-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones percs slowly depth to rock
729: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan
Boger-----	Severe: cemented pan depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones depth to rock droughty	Limitation: cemented pan large stones depth to rock
732: Kelk-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt percs slowly	Limitation: erodes easily percs slowly

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Kelk-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily percs slowly soil blowing	Limitation: erodes easily percs slowly soil blowing
733: Kelk-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily flooding percs slowly	Limitation: erodes easily percs slowly
Enko-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake percs slowly soil blowing	Limitation: erodes easily percs slowly soil blowing
734: Kelk-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily flooding percs slowly	Limitation: erodes easily percs slowly
736: Kelk-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily percs slowly soil blowing	Limitation: erodes easily percs slowly soil blowing
Kortty-----	Severe: seepage	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt rooting depth	Limitation: erodes easily
740: Gowjai-----	Severe: seepage slope	Moderate: seepage piping thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Sumine-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
750: Snapp-----	Moderate: seepage slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
Oxcoral-----	Severe: seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: excess sodium percs slowly slope	Favorable

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
751: Snapp-----	Moderate: seepage slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
Sodhouse-----	Severe: cemented pan seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily cemented pan too sandy
752: Snapp-----	Moderate: seepage slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
753: Snapp-----	Moderate: seepage slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: too sandy
Dugchip-----	Moderate: cemented pan slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily too sandy soil blowing
754: Snapp-----	Severe: slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily slope too sandy
Puett-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
755: Snapp-----	Moderate: seepage slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: erodes easily too sandy
Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
756: Snapp-----	Moderate: seepage slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
Adelaide-----	Severe: cemented pan seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: cemented pan rooting depth slope	Limitation: erodes easily cemented pan too sandy
McConnel-----	Severe: seepage	Severe: excess salt seepage	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: erodes easily too sandy soil blowing
760: Piline-----	Slight	Severe: wetness	Severe: no water	Limitation: percs slowly	Limitation: percs slowly wetness	Limitation: percs slowly wetness
Piline-----	Slight	Severe: ponding	Severe: no water	Limitation: percs slowly ponding	Limitation: percs slowly ponding	Limitation: percs slowly ponding
761: Piline-----	Slight	Severe: ponding	Severe: no water	Limitation: percs slowly ponding	Limitation: percs slowly slow intake ponding	Limitation: percs slowly ponding
772: Broyles-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily too sandy soil blowing
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
773: Broyles-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
774: Broyles-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
775: Broyles-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: excess salt soil blowing	Limitation: too sandy soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Bubus-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
Goldrun-----	Severe: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
780: Dacker-----	Moderate: cemented pan seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Chiara-----	Severe: cemented pan	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan soil blowing	Limitation: erodes easily cemented pan soil blowing
781: Dacker-----	Moderate: cemented pan seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan
Bilbo-----	Severe: seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: large stones percs slowly slope
782: Dacker-----	Moderate: cemented pan seepage	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan soil blowing	Limitation: erodes easily cemented pan soil blowing
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Snowmore-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing depth to rock	Limitation: cemented pan slope depth to rock
790: Rio King-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Favorable	Favorable
Clementine-----	---	---	---	---	---	---
791: Rio King-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: excess salt	Favorable

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
800: Udelope-----	Severe: slope depth to rock	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Bregar-----	Severe: depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones depth to rock
Rock Outcrop----	---	---	---	---	---	---
801: Udelope-----	Severe: slope depth to rock	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Hackwood-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
810: Batan-----	Slight	Severe: excess salt	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
Goldrun-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
811: Batan-----	Slight	Severe: excess salt	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
Batan-----	Slight	Severe: excess salt	Severe: no water	Limitation: deep to water	Limitation: excess salt fast intake soil blowing	Limitation: erodes easily soil blowing
813: Batan-----	Slight	Severe: excess salt	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
815: Batan-----	Slight	Severe: excess salt	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
Prideen-----	Slight	Severe: excess salt piping	Severe: slow refill salty water	Limitation: excess salt frost action	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily wetness
Wendane-----	Moderate: seepage	Severe: excess sodium excess salt	Severe: slow refill salty water	Limitation: excess salt flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
818: Batan-----	Slight	Severe: excess salt	Severe: no water	Limitation: deep to water	Limitation: excess salt fast intake soil blowing	Limitation: erodes easily soil blowing
Bubus-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: erodes easily soil blowing
Goldrun-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
823: Whirlo-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt slope	Limitation: erodes easily
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing
Snapp-----	Moderate: seepage slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: too sandy
825: Whirlo-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt slope droughty	Favorable
Oxcorel-----	Severe: seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: excess sodium percs slowly slope	Favorable

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
831: Boton-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
Playas-----	Slight	Severe: excess salt hard to pack ponding	Severe: slow refill salty water	Limitation: flooding percs slowly ponding	Limitation: percs slowly ponding droughty	Limitation: erodes easily percs slowly ponding
833: Boton-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
Isolde-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Boton-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily fast intake soil blowing	Limitation: erodes easily soil blowing
834: Boton-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: excess salt fast intake soil blowing	Limitation: erodes easily soil blowing
Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake soil blowing droughty	Limitation: too sandy soil blowing
840: Dugchip-----	Moderate: cemented pan slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
Flue-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: erodes easily cemented pan

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
842: Dugchip-----	Moderate: cemented pan slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
Kelk-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily flooding percs slowly	Limitation: erodes easily percs slowly
844: Dugchip-----	Moderate: cemented pan slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
Chiara-----	Severe: cemented pan	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: erodes easily cemented pan
845: Dugchip-----	Moderate: cemented pan	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly soil blowing	Limitation: erodes easily cemented pan too sandy
Needle Peak-----	Slight	Moderate: piping	Severe: slow refill	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
860: Goosel-----	Moderate: cemented pan seepage depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan depth to rock
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
861: Goosel-----	Moderate: cemented pan seepage depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly soil blowing depth to rock	Limitation: erodes easily cemented pan depth to rock
862: Goosel-----	Moderate: cemented pan seepage depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: erodes easily cemented pan depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Devada-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Goosel-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
863: Goosel-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: cemented pan slope depth to rock
Midraw-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: cemented pan slope depth to rock
880: Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Sumine-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Harcany-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: large stones slope
Cumulic Haplaquolls----	---	---	---	---	---	---
881: Cleavage-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Bregar-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
882: Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Rock Outcrop----	---	---	---	---	---	---
883: Cleavage-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Tusel-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope	Limitation: large stones slope
Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
884: Cleavage-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Tusel-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope	Limitation: large stones slope
885: Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Reluctan-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: large stones slope depth to rock
886: Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Bullump-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Limitation: large stones slope

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
891: Softscrabble----	Severe: slope	Moderate: large stones	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope	Limitation: large stones percs slowly slope
Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Harcany-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: large stones slope
892: Softscrabble----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones percs slowly slope
Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
900: Roca-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Bregar-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Linrose-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
901: Roca-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Reluctan-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
911: Barnard-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: cemented pan large stones slope
Barnard-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: cemented pan large stones slope
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
921: Walti-----	Severe: slope	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Reluctan-----	Severe: slope	Moderate: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing depth to rock	Limitation: slope soil blowing depth to rock
Sumine-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
922: Walti-----	Severe: slope	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Reluctan-----	Moderate: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: depth to rock
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Cumulic Haplaquolls----	---	---	---	---	---	---
923: Walti-----	Severe: slope	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
942: Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
943: Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
944: Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
946: Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: large stones slope depth to rock
Rubble Land----	Severe: seepage slope	Severe: large stones seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
947: Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: large stones slope depth to rock
954: Puffer-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Xine-----	Severe: seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
955: Puffer-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
960: Zevadez-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly rooting depth soil blowing	Limitation: erodes easily percs slowly soil blowing
Wieland-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt percs slowly	Limitation: erodes easily
Kelk-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily percs slowly soil blowing	Limitation: erodes easily percs slowly soil blowing
Piline-----	---	---	---	---	---	---
962: Zevadez-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly rooting depth slope	Limitation: erodes easily percs slowly slope
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
963: Zevadex-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly rooting depth slope	Limitation: erodes easily percs slowly
McConnel-----	Severe: seepage	Severe: excess salt seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt slope droughty	Limitation: too sandy
964: Zevadex-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly rooting depth slope	Limitation: erodes easily percs slowly
970: Gosumi-----	Severe: seepage slope	Moderate: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope
Walti-----	Moderate: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones percs slowly depth to rock
980: Snowmore-----	Moderate: cemented pan slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope depth to rock	Limitation: cemented pan depth to rock
Snowmore-----	Moderate: cemented pan depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan soil blowing depth to rock	Limitation: cemented pan soil blowing depth to rock
981: Snowmore-----	Moderate: cemented pan depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan soil blowing depth to rock	Limitation: cemented pan soil blowing depth to rock
Zevadex-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly rooting depth soil blowing	Limitation: erodes easily percs slowly soil blowing
Snowmore-----	Moderate: cemented pan slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope depth to rock	Limitation: cemented pan depth to rock
983: Snowmore-----	Moderate: cemented pan slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing depth to rock	Limitation: cemented pan soil blowing depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
984: Snowmore-----	Moderate: cemented pan slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing depth to rock	Limitation: cemented pan soil blowing depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Devada-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones percs slowly depth to rock
990: Playas-----	Slight	Severe: excess salt hard to pack ponding	Severe: slow refill salty water	Limitation: flooding percs slowly ponding	Limitation: percs slowly ponding droughty	Limitation: erodes easily percs slowly ponding
994: Dune Land-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
995: Dune Land-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Goldrun-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Davey-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
998: Dumps-----	Severe: seepage slope	Severe: large stones seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Pits-----	Severe: depth to rock	Slight	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
999: Slickens-----	Slight	Severe: excess salt	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily soil blowing
1004: Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Davey-----	Severe: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
1005: Flue-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan percs slowly
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: erodes easily slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
1007: Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Puett-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock
Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
1010: Bartome-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan soil blowing	Limitation: cemented pan soil blowing
Chiara-----	Severe: cemented pan	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1020: Wholan-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily soil blowing
1023: Wholan-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt slope	Limitation: erodes easily
Bliss-----	Moderate: cemented pan seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Enko-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily soil blowing
1025: Wholan-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
1030: Bullump-----	Severe: slope	Moderate: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Limitation: slope
Westbutte-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Harcany-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: large stones slope
Cumulic Haplaquolls----	---	---	---	---	---	---
1031: Bullump-----	Severe: slope	Moderate: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: slope
Sumine-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Cleavage-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1050: Argenta-----	Moderate: seepage	Severe: excess sodium excess salt piping	Severe: salty water	Limitation: deep to water	Limitation: erodes easily excess sodium soil blowing	Limitation: erodes easily soil blowing
1051: Argenta-----	Moderate: seepage	Severe: excess sodium excess salt piping	Severe: salty water	Limitation: deep to water	Limitation: erodes easily excess sodium soil blowing	Limitation: erodes easily soil blowing
Preble-----	Severe: seepage	Severe: excess salt piping	Severe: slow refill cutbanks cave	Limitation: deep to water	Limitation: erodes easily percs slowly rooting depth	Limitation: erodes easily percs slowly
1052: Argenta-----	Moderate: seepage	Severe: excess sodium excess salt piping	Severe: salty water	Limitation: deep to water	Limitation: erodes easily excess sodium soil blowing	Limitation: erodes easily soil blowing
Preble-----	Severe: seepage	Severe: excess salt piping	Severe: slow refill cutbanks cave	Limitation: deep to water	Limitation: percs slowly rooting depth soil blowing	Limitation: erodes easily percs slowly soil blowing
1055: Argenta-----	Moderate: seepage	Severe: excess sodium excess salt piping	Severe: salty water	Limitation: deep to water	Limitation: erodes easily excess sodium excess salt	Limitation: erodes easily
1060: Paranat-----	Slight	Severe: piping	Severe: slow refill	Limitation: deep to water	Limitation: erodes easily excess salt flooding	Limitation: erodes easily
1061: Paranat-----	Slight	Severe: piping wetness	Severe: slow refill	Limitation: flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
1064: Paranat-----	Slight	Severe: piping wetness	Severe: slow refill	Limitation: flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
Paranat-----	Slight	Severe: excess salt piping wetness	Severe: slow refill salty water	Limitation: excess salt flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1066: Paranat-----	Slight	Severe: piping wetness	Severe: slow refill	Limitation: flooding frost action	Limitation: erodes easily wetness soil blowing	Limitation: erodes easily wetness soil blowing
1067: Paranat-----	Slight	Severe: excess salt piping wetness	Severe: slow refill salty water	Limitation: excess salt flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
Clementine-----	---	---	---	---	---	---
1072: Hoot-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Laped-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope depth to rock	Limitation: cemented pan large stones depth to rock
Rubble Land-----	Severe: seepage slope	Severe: large stones seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
1075: Hoot-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Panlee-----	Severe: slope	Severe: large stones seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Rock Outcrop----	---	---	---	---	---	---
1077: Hoot-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1078: Hoot-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Genaw-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope depth to rock
1090: Soolake-----	Severe: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: rooting depth soil blowing droughty	Limitation: too sandy soil blowing
Argenta-----	Moderate: seepage	Severe: excess sodium excess salt piping	Severe: salty water	Limitation: deep to water	Limitation: erodes easily excess sodium soil blowing	Limitation: erodes easily soil blowing
1100: Wendane-----	Moderate: seepage	Severe: excess sodium excess salt	Severe: slow refill salty water	Limitation: excess salt flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
1101: Wendane-----	Moderate: seepage	Severe: excess sodium excess salt	Severe: slow refill salty water	Limitation: excess sodium excess salt frost action	Limitation: erodes easily excess sodium wetness	Limitation: erodes easily wetness
1102: Wendane-----	Moderate: seepage	Severe: excess sodium excess salt	Severe: slow refill salty water	Limitation: excess sodium excess salt frost action	Limitation: erodes easily excess sodium wetness	Limitation: erodes easily wetness
Wendane-----	Moderate: seepage	Severe: excess sodium excess salt	Severe: slow refill salty water	Limitation: excess salt flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
1104: Wendane-----	Moderate: seepage	Severe: excess sodium excess salt	Severe: slow refill salty water	Limitation: excess salt flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness
Sonoma-----	Slight	Severe: wetness	Severe: slow refill	Limitation: flooding frost action	Limitation: erodes easily flooding wetness	Limitation: erodes easily wetness

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1110: Theon-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
1120: Relley-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt flooding	Limitation: erodes easily
Kelk-----	Slight	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily percs slowly soil blowing	Limitation: erodes easily percs slowly soil blowing
1140: Layview-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Tusel-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Layview-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
1142: Layview-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Udelope-----	Severe: slope depth to rock	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
1150: Cotant-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Say-----	Severe: seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Cotant-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1151: Cotant-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Say-----	Severe: seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Gol-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: large stones slope depth to rock
1160: Hawsley-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake soil blowing droughty	Limitation: too sandy soil blowing
1161: Hawsley-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Isolde-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
1162: Hawsley-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Mazuma-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
1167: Hawsley-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
1168: Hawsley-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Davey-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Essal-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake rooting depth soil blowing	Limitation: erodes easily too sandy soil blowing
1169: Hawsley-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: erodes easily large stones slope
1170: Runnton-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan slope
Bliss-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: erodes easily cemented pan slope
Trunk-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
1171: Runnton-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
Dugchip-----	Moderate: cemented pan slope	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
Orovada-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1172: Flue-----	Severe: seepage	Severe: excess sodium	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Hunnton-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan slope
McConnel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: droughty	Limitation: too sandy
1173: Hunnton-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
1174: Hunnton-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
Zevadez-----	Moderate: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily percs slowly soil blowing
Enko-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily percs slowly soil blowing	Limitation: erodes easily soil blowing
1175: Hunnton-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan slope
Goosel-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Limitation: too sandy
1176: Hunnton-----	Moderate: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: erodes easily cemented pan percs slowly

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Hunnton-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: erodes easily cemented pan slope
Dacker-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: excess salt cemented pan slope	Limitation: erodes easily cemented pan slope
1180: Rocconda-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: slope depth to rock
Hoot-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
1181: Rocconda-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: large stones slope depth to rock
Hoot-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
1184: Rocconda-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: slope depth to rock
Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: erodes easily large stones slope
Rock Outcrop---	---	---	---	---	---	---
1185: Rocconda-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: slope depth to rock
Quomus-----	Severe: slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily slope soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Atlow-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
1186: Rocconda-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: slope depth to rock
Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Midraw-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: cemented pan percs slowly depth to rock
1187: Rocconda-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: large stones slope depth to rock
Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: erodes easily large stones slope
Hoot-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
1188: Rocconda-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: slope depth to rock
Rocconda-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: slope depth to rock
1189: Rocconda-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: large stones slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1192: Enko-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily soil blowing
1194: Enko-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt percs slowly	Limitation: erodes easily
1200: Erakatak-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Madeline-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly depth to rock
1201: Erakatak-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Harcany-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: large stones slope
1202: Erakatak-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Bullump-----	Severe: slope	Moderate: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Limitation: slope
Rock Outcrop----	---	---	---	---	---	---
1210: Cresal-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
Playas-----	Slight	Severe: excess salt hard to pack ponding	Severe: slow refill salty water	Limitation: flooding percs slowly ponding	Limitation: percs slowly ponding droughty	Limitation: erodes easily percs slowly ponding

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1211: Cresal-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
1212: Cresal-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: excess salt fast intake soil blowing	Limitation: erodes easily soil blowing
Tresed-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: fast intake percs slowly soil blowing	Limitation: erodes easily soil blowing
Playas-----	Slight	Severe: excess salt hard to pack ponding	Severe: slow refill salty water	Limitation: flooding percs slowly ponding	Limitation: percs slowly ponding droughty	Limitation: erodes easily percs slowly ponding
1221: Alyan-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope depth to rock
Bilbo-----	Severe: seepage slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope
1230: Knott-----	Severe: cemented pan seepage	Severe: excess sodium seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: cemented pan too sandy
Sodhouse-----	Severe: cemented pan seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope droughty	Limitation: erodes easily cemented pan too sandy
Wholan-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
1240: Laped-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
1241: Laped-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope depth to rock	Limitation: cemented pan depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1291: Tresed-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: fast intake percs slowly soil blowing	Limitation: erodes easily soil blowing
Isolde-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
1292: Tresed-----	Moderate: seepage	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: fast intake percs slowly soil blowing	Limitation: erodes easily soil blowing
1310: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan
Tenabo-----	Severe: cemented pan seepage	Severe: excess sodium excess salt seepage	Severe: no water	Limitation: deep to water	Limitation: cemented pan soil blowing droughty	Limitation: erodes easily cemented pan too sandy
1312: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan soil blowing	Limitation: erodes easily cemented pan soil blowing
Dacker-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
Dewar-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
1313: Dewar-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan slope
Sodhouse-----	Severe: cemented pan seepage	Moderate: seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan slope	Limitation: erodes easily cemented pan
Midraw-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: cemented pan percs slowly depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1314: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan soil blowing
Zevadez-----	Moderate: seepage slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: percs slowly rooting depth slope	Limitation: erodes easily percs slowly
1315: Dewar-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope	Limitation: erodes easily cemented pan
Chiara-----	Severe: cemented pan slope	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: cemented pan slope soil blowing	Limitation: erodes easily cemented pan slope
Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
1321: Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Midraw-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
1322: Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1324: Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Gowjai-----	Severe: seepage slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Limitation: large stones slope
Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: erodes easily large stones slope
1327: Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Gowjai-----	Severe: seepage slope	Moderate: seepage piping thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
1331: Siscab-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: fast intake slope depth to rock	Limitation: slope depth to rock
Aycab-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Ola-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Cumulic Haplaquolls----	---	---	---	---	---	---
1332: Siscab-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: fast intake slope depth to rock	Limitation: slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Ola-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
Cumulic Haplaquolls----	---	---	---	---	---	---
1333: Siscab-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock
Say-----	Severe: seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
1334: Siscab-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock
Eaglerock-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
1335: Siscab-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock
Westbutte-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
Clementine-----	---	---	---	---	---	---
1341: Longcreek-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Menbo-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
Cumulic Haplaquolls----	---	---	---	---	---	---
1342: Longcreek-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
Clementine-----	---	---	---	---	---	---
1344: Longcreek-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Softscrabble----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
1345: Longcreek-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Zymans-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope	Limitation: percs slowly slope
1360: Midraw-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: cemented pan slope depth to rock
Midraw-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: cemented pan slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1362: Midraw-----	Severe: cemented pan	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: erodes easily cemented pan depth to rock
Midraw-----	Severe: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: cemented pan slope depth to rock
Hunnton-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope soil blowing	Limitation: erodes easily cemented pan too sandy
1371: Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope depth to rock
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
1373: Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Zymans-----	Moderate: slope depth to rock	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope	Limitation: percs slowly
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope depth to rock
1380: Genaw-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Rocconda-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: slope depth to rock
1381: Genaw-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing depth to rock	Limitation: erodes easily soil blowing depth to rock
Trunk-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: erodes easily slope depth to rock
Devada-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones percs slope depth to rock
1382: Genaw-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock
Puett-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
1390: Mulhop-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Xine-----	Severe: seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
1400: Madeline-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Cumulic Haplaquolls----	---	---	---	---	---	---
1410: Say-----	Severe: seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Tosp-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: slope	Limitation: slope
Aycab-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
1411: Say-----	Severe: seepage slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Aycab-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
1420: Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Panlee-----	Severe: slope	Severe: large stones seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock
1421: Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: erodes easily large stones slope
Davey-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1423: Panlee-----	Severe: slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: erodes easily large stones slope
Vanwyper-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Carstump-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
1431: Hunnton-----	Moderate: cemented pan slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: perms slowly slope droughty	Limitation: erodes easily cemented pan perms slowly
Rodock-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt slope droughty	Limitation: too sandy
Cumulic Haplaquolls----	---	---	---	---	---	---
1432: Rodock-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt droughty	Limitation: too sandy
Connel-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily too sandy soil blowing
1433: Rodock-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt droughty	Limitation: too sandy
1436: Rodock-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: excess salt droughty	Limitation: too sandy
1437: Rodock-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: erodes easily soil blowing droughty	Limitation: erodes easily too sandy soil blowing

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1450: Wiskan-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: large stones slope depth to rock
Climine-----	Severe: slope	Moderate: large stones	Severe: no water	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: large stones slope soil blowing
1460: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Reluctan-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock
1461: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
Alyan-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Cumulic Haplaquolls----	---	---	---	---	---	---
1462: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
1464: Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Sumine-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Cumulic Haplaquolls----	---	---	---	---	---	---
1465: Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
1466: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Bullump-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Limitation: large stones slope
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1467: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Udelope-----	Severe: slope depth to rock	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope
1468: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Softscrabble----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones percs slowly slope
Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
1469: Ninemile-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Softscrabble----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones percs slowly slope
Sumine-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
1470: Zymans-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope	Limitation: percs slowly slope
Burrita-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones percs slowly slope	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope depth to rock
1471: Zymans-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope	Limitation: percs slowly slope
Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Soughe-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: slope depth to rock droughty	Limitation: slope depth to rock
1472: Zymans-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope	Limitation: percs slowly slope
Zymans-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope	Limitation: percs slowly slope
Burrita-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
1473: Zymans-----	Severe: slope	Moderate: hard to pack thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope	Limitation: percs slowly slope
Genaw-----	Severe: depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope depth to rock	Limitation: erodes easily depth to rock
1480: Tusel-----	Severe: slope	Moderate: large stones thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope	Limitation: large stones slope
Rock Outcrop---	---	---	---	---	---	---
1481: Cleavage-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1530: Westbutte-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope depth to rock	Limitation: large stones slope depth to rock
1540: Locane-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: large stones slope depth to rock
1551: Charwell-----	Severe: slope	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: cemented pan slope depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
Anawalt-----	Severe: slope depth to rock	Severe: hard to pack	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: percs slowly slope depth to rock
1560: Menbo-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Rock Outcrop----	---	---	---	---	---	---
1561: Menbo-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Madeline-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope depth to rock	Limitation: large stones slope depth to rock
Tusel-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope	Limitation: large stones slope
Cumulic Haplaquolls----	---	---	---	---	---	---
1562: Devada-----	Severe: slope depth to rock	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: percs slowly slope droughty	Limitation: percs slowly slope depth to rock

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
Menbo-----	Severe: slope	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Longcreek-----	Severe: slope depth to rock	Severe: large stones	Severe: no water	Limitation: deep to water	Limitation: large stones slope droughty	Limitation: large stones slope depth to rock
Cumulic Haplaquolls----	---	---	---	---	---	---
1570: Delvada-----	Slight	Severe: wetness	Severe: slow refill	Limitation: flooding frost action percs slowly	Limitation: percs slowly slow intake wetness	Limitation: percs slowly wetness
1572: Delvada-----	Slight	Severe: excess salt	Severe: slow refill	Limitation: deep to water	Limitation: erodes easily excess salt percs slowly	Limitation: erodes easily percs slowly
1579: Delvada-----	Slight	Severe: wetness	Severe: slow refill	Limitation: flooding frost action percs slowly	Limitation: erodes easily percs slowly wetness	Limitation: erodes easily percs slowly wetness
1580: Isolde-----	Severe: seepage slope	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing
Essal-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt rooting depth	Limitation: erodes easily too sandy
Essal-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: fast intake rooting depth soil blowing	Limitation: erodes easily too sandy soil blowing
1594: Boton-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
Boton-----	Slight	Severe: excess salt piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt flooding	Limitation: erodes easily

TABLE 11.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Terraces and diversions
1600: Clurde-----	Severe: seepage	Slight	Severe: no water	Limitation: deep to water	Limitation: erodes easily	Limitation: erodes easily
1610: Gochea-----	Severe: seepage	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Favorable
Gochea-----	Severe: seepage slope	Severe: seepage	Severe: no water	Limitation: deep to water	Limitation: slope droughty	Limitation: slope
Igdell-----	Severe: slope	Severe: thin layer	Severe: no water	Limitation: deep to water	Limitation: cemented pan percs slowly slope	Limitation: cemented pan percs slowly slope
1620: Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily too sandy soil blowing
1621: Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt soil blowing	Limitation: erodes easily too sandy soil blowing
Wholan-----	Moderate: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily
1622: Weso-----	Severe: seepage	Moderate: excess salt seepage piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily slope soil blowing	Limitation: erodes easily too sandy soil blowing
Davey-----	Severe: seepage	Severe: seepage piping	Severe: no water	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing
Broyles-----	Severe: seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily excess salt	Limitation: erodes easily too sandy
1630: Bliss-----	Moderate: cemented pan seepage	Severe: piping	Severe: no water	Limitation: deep to water	Limitation: erodes easily cemented pan	Limitation: erodes easily cemented pan

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	
Tusk-----	0-13	gravelly loam	CL-ML, CL, GC, GC-GM	A-4, A-6	0	0-5	60-80	50-75	40-70	35-65	20-35	5-15
	13-40	gravelly clay loam	CL, GC, SC	A-6	0-5	0-15	65-80	60-75	55-70	40-55	35-40	15-20
	40-60	very cobbly loam, extremely cobbly loam, very gravelly clay loam	GC, SC	A-2, A-6	0-5	15-45	30-75	25-60	20-50	15-40	25-40	10-20
106: Anawalt-----	0-2	very gravelly loam	GC	A-2, A-6	0	0-10	35-60	30-50	25-45	20-40	25-35	10-15
	2-16	gravelly clay, clay, gravelly silty clay loam	CH, CL, SC, GC	A-7	0	0-10	60-95	55-90	50-85	40-75	40-70	20-45
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
Ninemile-----	0-2	very gravelly loam	GC-GM	A-2, A-4	0	0-15	40-65	35-55	30-50	25-45	20-30	5-10
	2-14	clay, gravelly clay	CL, CH, SC	A-7	0	0-5	95-100	65-100	55-95	40-80	45-65	20-35
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Alyan-----	0-17	cobbly loam	CL, SC	A-6	0-1	15-30	80-100	70-90	60-85	40-70	25-35	10-15
	17-39	gravelly clay	CH, GC, CL	A-7	0	0-5	55-80	50-75	40-65	35-55	45-60	20-35
	39-43	unweathered bedrock			---	---	---	---	---	---	---	---
107: Anawalt-----	0-2	very gravelly loam	GC	A-2, A-6	0	0-10	35-60	30-50	25-45	20-40	25-35	10-15
	2-16	gravelly clay, clay, gravelly silty clay loam	CH, CL, SC, GC	A-7	0	0-10	60-95	55-90	50-85	40-75	40-70	20-45
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
Ninemile-----	0-2	very gravelly loam	GC-GM	A-2, A-4	0	0-15	40-65	35-55	30-50	25-45	20-30	5-10
	2-14	clay, gravelly clay	CH, SC, CL	A-7	0	0-5	95-100	65-100	55-95	40-80	45-65	20-35
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Tusk-----	0-13	gravelly loam	CL-ML, CL, GC, GC-GM	A-4, A-6	0	0-5	60-80	50-75	40-70	35-65	20-35	5-15
	13-40	gravelly clay loam	GC, CL, SC	A-6	0-5	0-15	65-80	60-75	55-70	40-55	35-40	15-20
	40-60	very cobbly loam, extremely cobbly loam, very gravelly clay loam	GC, SC	A-2, A-6	0-5	15-45	30-75	25-60	20-50	15-40	25-40	10-20

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
108: Anawalt-----	0-2	very gravelly loam	GC	A-2, A-6	0	0-10	35-60	30-50	25-45	20-40	25-35	10-15
	2-16	gravelly clay, clay, gravelly silty clay loam	CH, CL, SC, GC	A-7	0	0-10	60-95	55-90	50-85	40-75	40-70	20-45
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
Ninemile-----	0-2	very cobbly loam	CL-ML	A-4	1-5	30-65	70-90	70-85	60-75	50-60	25-30	5-10
	2-14	clay, gravelly clay	CH	A-7	0	0-15	70-100	65-100	60-90	50-80	55-65	30-35
	14-24	unweathered bedrock			---	---	---	---	---	---	---	---
Alyan-----	0-17	cobbly loam	CL, SC	A-6	0-1	15-30	80-100	70-90	60-85	40-70	25-35	10-15
	17-39	gravelly clay	CH, CL, GC	A-7	0	0-5	55-80	50-75	40-65	35-55	45-60	20-35
	39-43	unweathered bedrock			---	---	---	---	---	---	---	---
110: Adelaide-----	0-3	silt loam	CL-ML, ML	A-4	0	0-5	85-100	80-100	70-90	55-70	15-25	NP-10
	3-11	loam, silt loam, very fine sandy loam	CL-ML, ML	A-4	0	0-5	85-100	80-100	70-90	55-85	15-25	NP-10
	11-16	cemented			---	---	---	---	---	---	---	---
	16-28	clay loam	CL	A-6, A-7	0	0-5	95-100	90-100	75-90	55-70	35-45	15-20
	28-35	indurated			---	---	---	---	---	---	---	---
	35-60	extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-5	15-30	10-25	5-20	0-10	---	NP
120: Bregar-----	0-2	very gravelly loam	GC, GC-GM	A-2, A-6, A-4	0	10-20	55-70	40-55	35-50	25-40	25-35	5-15
	2-12	very gravelly sandy clay loam, extremely cobbly clay loam, very gravelly clay loam	GC	A-2	0	5-45	40-50	25-35	20-30	10-25	35-45	15-25
	12-16	unweathered bedrock			---	---	---	---	---	---	---	---
Tusk-----	0-13	gravelly loam	CL-ML, GC, CL, GC-GM	A-4, A-6	0	0-5	60-80	50-75	40-70	35-65	20-35	5-15
	13-40	gravelly clay loam	CL, GC, SC	A-6	0-5	0-15	65-80	60-75	55-70	40-55	35-40	15-20
	40-60	very cobbly loam, extremely cobbly loam, very gravelly clay loam	GC, SC	A-2, A-6	0-5	15-45	30-75	25-60	20-50	15-40	25-40	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	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
Bregar-----	0-1	very cobbly loam	GC, GC-GM	A-2, A-4, A-6	0	30-50	50-70	45-65	40-55	25-40	20-35	5-15
	1-9	very gravelly sandy clay loam, extremely cobbly clay loam, very gravelly clay loam	GC	A-2	0	5-45	30-50	25-35	20-30	10-25	35-45	15-25
	9-13	unweathered bedrock			---	---	---	---	---	---	---	---
122: Bregar-----	0-2	very gravelly loam	GC, GC-GM	A-2, A-4, A-6	0	10-20	55-70	40-55	35-50	25-40	25-35	5-15
	2-12	very gravelly sandy clay loam, extremely cobbly clay loam, very gravelly clay loam	GC	A-2	0	5-45	40-50	25-35	20-30	10-25	35-45	15-25
	12-16	unweathered bedrock			---	---	---	---	---	---	---	---
Tusel-----	0-22	gravelly loam	GM, SM	A-4	0	0-10	55-80	50-75	45-70	35-50	25-35	NP-10
	22-46	extremely gravelly sandy clay loam, extremely gravelly clay loam, very gravelly clay loam	GC	A-2	0	15-45	30-50	25-40	20-35	15-30	30-40	10-20
	46-50	unweathered bedrock			---	---	---	---	---	---	---	---
Cleavage-----	0-7	very cobbly loam	GC, GC-GM	A-2, A-6, A-4	0-5	30-45	55-75	45-65	40-60	25-50	25-35	5-15
	7-16	very cobbly clay loam, extremely cobbly sandy clay loam, very gravelly clay loam	GC	A-2	5-15	10-40	40-55	30-45	25-45	20-35	30-45	10-20
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
131: Benin-----	0-8	silt loam	CL-ML, ML	A-4	0	0	100	95-100	75-90	70-85	25-35	5-10
	8-70	clay, silty clay	CH, CL, MH	A-7	0	0	100	100	90-100	85-95	45-55	20-25
133: Benin-----	0-8	silt loam	CL-ML, ML	A-4	0	0	100	95-100	75-90	70-85	25-35	5-10
	8-70	clay, silty clay	CH, CL, MH	A-7	0	0	100	100	90-100	85-95	45-55	20-25

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						
				Pct	Pct					Pct		
141: Beoska-----	In											
	0-5	gravelly very fine sandy loam	SM	A-4	0	0-10	70-80	55-75	50-70	35-50	15-25	NP-5
	5-16	clay loam, silty clay loam, silt loam	CL	A-6, A-7	0	0	80-100	75-100	70-85	60-85	35-45	15-25
	16-40	stratified gravelly sandy loam to gravelly very fine sandy loam	GM, SM	A-1, A-2	0	0-10	60-80	55-70	30-50	20-35	---	NP
	40-60	stratified extremely gravelly loamy sand to very gravelly sandy loam	GM	A-1	0	0-15	30-55	25-50	15-35	10-25	---	NP
Bluewing-----	0-2	very gravelly sandy loam	GM	A-1	0	0-10	40-60	30-50	20-40	15-25	---	NP
	2-60	stratified very gravelly sand to extremely gravelly loamy coarse sand	GP-GM	A-1	0	5-25	30-40	25-35	15-25	5-10	---	NP
143: Beoska-----	0-5	very fine sandy loam	ML	A-4	0	0	85-95	75-85	70-80	55-65	15-25	NP-5
	5-26	silt loam, silty clay loam, clay loam	CL	A-6, A-7	0	0	80-95	75-90	70-85	65-80	35-45	15-25
	26-60	stratified gravelly sandy loam to gravelly very fine sandy loam	GM, SM	A-1, A-2	0	0-10	55-80	50-75	30-50	20-35	15-25	NP-5
Broyles-----	0-3	very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-100	50-70	20-25	NP-5
	3-12	silt loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	75-90	40-55	20-25	NP-5
	12-60	stratified gravelly loamy sand to loam	SM	A-2	0	0	70-100	60-95	30-40	25-35	0-14	NP
144: Beoska-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	85-95	75-95	70-80	45-65	15-25	NP-5
	5-26	silt loam, silty clay loam, clay loam	CL	A-6, A-7	0	0	80-100	75-100	70-85	60-85	35-45	15-25
	26-60	stratified gravelly sandy loam to gravelly very fine sandy loam	GM, SM	A-1, A-2	0	0-10	55-80	50-75	30-50	20-35	15-25	NP-5

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth In	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
Dun Glen-----	0-6	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	50-65	15-25	NP-5
	6-23	silt loam, very fine sandy loam	ML	A-4	0	0	95-100	90-100	85-100	55-70	15-25	NP-5
	23-60	fine sandy loam, very fine sandy loam, loam	ML, SM	A-4	0	0	90-100	85-100	70-85	35-55	15-25	NP-5
145: Beoska-----	0-5	gravelly very fine sandy loam	SM	A-4	0	0-10	70-80	55-75	50-70	35-50	15-25	NP-5
	5-26	silt loam, silty clay loam, clay loam	CL	A-6, A-7	0	0	80-100	75-100	70-85	60-85	35-45	15-25
	26-60	stratified gravelly sandy loam to gravelly very fine sandy loam	GM, SM	A-1, A-2	0	0-10	60-80	55-70	30-50	20-35	---	NP
Beoska-----	0-5	gravelly very fine sandy loam	SM	A-4	0	0-10	70-80	55-75	50-70	35-50	15-25	NP-5
	5-26	silt loam, silty clay loam, clay loam	CL	A-6, A-7	0	0	80-100	75-100	70-85	60-85	35-45	15-25
	26-60	stratified gravelly sandy loam to gravelly very fine sandy loam	GM, SM	A-1, A-2	0	0-10	60-80	55-70	30-50	20-35	---	NP
Weso-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	80-90	40-55	15-25	NP-5
	5-11	fine sandy loam, very fine sandy loam, loam	CL-ML, ML, SM, SC-SM	A-4	0	0	95-100	85-100	70-85	45-60	15-30	NP-10
	11-26	fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	95-100	85-100	70-85	45-60	15-25	NP-5
	26-65	stratified very gravelly loamy sand to fine sandy loam	SM	A-1, A-2	0	0	80-90	70-80	45-55	20-30	---	NP
151: Blackhawk-----	0-4	silt loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	30-35	NP-5
	4-19	silt loam, loam, very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	30-35	NP-5
	19-24	cemented			---	---	---	---	---	---	---	---
	24-60	stratified gravelly coarse sand to loam	SM	A-1, A-2	0	0	75-90	70-85	35-50	10-30	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 Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
152: Blackhawk-----	0-4	silt loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	30-35	NP-5
	4-19	silt loam, loam, very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	30-35	NP-5
	19-24	cemented			---	---	---	---	---	---	---	---
	24-60	stratified gravelly coarse sand to loam	SM	A-1, A-2	0	0	85-100	80-100	35-50	10-30	---	NP
154: Blackhawk-----	0-4	very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	65-75	---	NP
	4-19	silt loam, loam, very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	30-35	NP-5
	19-24	cemented			---	---	---	---	---	---	---	---
	24-60	stratified gravelly coarse sand to loam	SM	A-1, A-2	0	0	85-100	80-100	35-50	10-30	---	NP
Golconda-----	0-13	silt loam	ML	A-4	0	0	95-100	90-100	80-100	65-90	20-30	NP-5
	13-22	gravelly clay loam, clay loam, silty clay loam	CL, GC	A-6, A-7	0	0	60-95	55-90	50-90	40-80	35-45	15-20
	22-26	cemented			---	---	---	---	---	---	---	---
	26-60	variable			---	---	---	---	---	---	---	---
Orovada-----	0-8	gravelly loam	GM, SM	A-2, A-4	0	0	60-80	55-75	45-70	30-50	15-25	NP-5
	8-26	fine sandy loam, loam, very fine sandy loam	ML, SM	A-4	0	0	75-100	75-95	60-85	40-70	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	NP-5
155: Blackhawk-----	0-4	loamy fine sand	SM	A-2	0	0	95-100	95-100	75-90	25-35	---	NP
	4-19	silt loam, loam, very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	30-35	NP-5
	19-24	cemented			---	---	---	---	---	---	---	---
	24-60	stratified gravelly coarse sand to loam	SM	A-1, A-2	0	0	85-100	80-100	35-50	10-30	---	NP
156: Blackhawk-----	0-4	very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	65-75	---	NP
	4-19	silt loam, loam, very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	30-35	NP-5
	19-24	cemented			---	---	---	---	---	---	---	---
	24-60	stratified gravelly coarse sand to loam	SM	A-1, A-2	0	0	85-100	80-100	35-50	10-30	---	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	
Clurde-----	0-5	very fine sandy loam	ML	A-4	0	0	80-100	75-100	70-85	55-65	20-25	NP-5
	5-22	loam, silt loam, clay loam	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	70-85	55-65	25-35	5-15
	22-60	stratified gravelly sandy loam to clay loam	SC-SM	A-2, A-4	0	0	70-95	55-90	45-60	25-45	25-30	5-10
157: Blackhawk-----	0-4	very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	65-75	---	NP
	4-19	silt loam, loam, very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	30-35	NP-5
	19-24	cemented			---	---	---	---	---	---	---	---
	24-60	stratified gravelly coarse sand to loam	SM	A-1, A-2	0	0	85-100	80-100	35-50	10-30	---	NP
Broyles-----	0-12	very fine sandy loam	ML	A-4	0	0	100	95-100	85-95	60-75	---	NP
	12-60	stratified gravelly loamy sand to loam	SM	A-2	0	0	70-100	60-95	30-40	25-35	---	NP
158: Blackhawk-----	0-4	very gravelly fine sandy loam	GM	A-1, A-2	0	0-5	40-55	35-50	30-50	15-35	---	NP
	4-19	gravelly loam, gravelly silt loam, gravelly very fine sandy loam	GM, SM	A-4	0	0	60-80	55-75	50-70	35-50	20-25	NP-5
	19-24	cemented			---	---	---	---	---	---	---	---
	24-30	stratified gravelly coarse sand to loam	SM	A-1, A-2	0	0	65-85	60-80	45-60	15-30	---	NP
	30-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GM, GP-GM	A-1	0	0-5	25-55	20-45	10-30	5-15	---	NP
Trocken-----	0-5	very gravelly very fine sandy loam	GC-GM, GM	A-1, A-2	0	0-25	40-55	35-50	30-50	10-35	15-30	NP-10
	5-60	stratified extremely gravelly loamy coarse sand to very cobbly loam	GC-GM, GP-GC	A-2	0	5-40	20-60	15-40	10-35	5-25	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	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
Blackhawk-----	0-4	very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	65-75	---	NP
	4-19	silt loam, very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	30-35	NP-5
	19-24	cemented			---	---	---	---	---	---	---	---
	24-60	stratified gravelly coarse sand to loam	SM	A-1, A-2	0	0	85-100	80-100	35-50	10-30	---	NP
Adelaide-----	0-3	very fine sandy loam	CL-ML, ML	A-4	0	0-5	80-100	75-100	70-85	55-65	15-25	NP-10
	3-11	loam, silt loam, very fine sandy loam	CL-ML, ML	A-4	0	0-5	85-100	80-100	70-90	55-85	15-25	NP-10
	11-16	cemented			---	---	---	---	---	---	---	---
	16-28	clay loam	CL	A-6, A-7	0	0-5	95-100	90-100	75-90	55-70	35-45	15-20
	28-60	indurated			---	---	---	---	---	---	---	---
169:												
Bliss-----	0-4	fine sandy loam	SM	A-4	0	0	90-100	85-100	75-95	35-50	15-20	NP-5
	4-22	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	65-90	40-70	15-20	NP-5
	22-28	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	60-90	35-65	---	NP
	28-56	cemented			---	---	---	---	---	---	---	---
	56-62	variable			---	---	---	---	---	---	---	---
Orovada-----	0-8	loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	25-35	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-95	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	NP-5
171:												
Bubus-----	0-5	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-80	50-60	25-30	NP-5
	5-63	stratified sandy loam to silt loam	ML	A-4	0	0	95-100	90-100	80-90	50-60	25-30	NP-5
174:												
Bubus-----	0-5	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-80	50-60	25-30	NP-5
	5-63	stratified sandy loam to silt loam	ML	A-4	0	0	95-100	90-100	80-90	50-60	25-30	NP-5
Needle Peak----	0-4	silt loam	CL, ML	A-6, A-7	0	0	100	100	95-100	80-90	30-45	10-15
	4-60	silt loam, silty clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	80-95	30-50	10-20
178:												
Bubus-----	0-5	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-80	50-60	25-30	NP-5
	5-63	stratified sandy loam to silt loam	ML	A-4	0	0	95-100	90-100	80-90	50-60	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	
190: Beeox-----	0-3	cobbly silt loam	ML	A-4	0-1	15-30	80-95	75-90	65-85	55-70	25-30	NP-5
	3-12	silt loam, very fine sandy loam	ML	A-4	0-1	0-10	90-100	80-100	70-95	55-80	25-35	NP-5
	12-21	clay, clay loam	CH, CL	A-7	0-1	0-10	85-100	80-100	70-95	60-80	40-60	20-35
	21-44	loam, gravelly fine sandy loam, sandy loam	CL-ML, SC-SM	A-4	0-1	0-10	70-95	65-90	50-75	35-60	25-30	5-10
	44-60	stratified extremely cobbly coarse sand to very gravelly fine sandy loam	GM, GP-GM	A-1	0-10	10-40	25-45	20-35	5-25	5-15	---	NP
Oxcorel-----	0-5	gravelly silt loam	GC-GM, SC-SM	A-4	---	0-10	60-85	55-75	45-60	35-50	25-30	5-10
	5-24	clay, clay loam	CH, CL	A-7	---	0-5	85-95	80-90	75-85	65-80	40-55	20-30
	24-60	very gravelly sandy loam, very gravelly loam	GM	A-1	---	0-15	30-60	25-50	20-40	15-25	15-25	NP-5
191: Beeox-----	0-3	very fine sandy loam	ML	A-4	0	0-10	90-100	80-100	70-95	55-80	25-35	NP-5
	3-12	silt loam, very fine sandy loam	ML	A-4	0	0-10	90-100	80-100	70-95	55-80	25-35	NP-5
	12-21	clay, clay loam	CH, CL	A-7	0-1	0-10	85-100	80-100	70-95	60-80	40-60	20-35
	21-44	loam, gravelly fine sandy loam, sandy loam	CL-ML, SC-SM	A-4	0-1	0-10	70-95	65-90	50-75	35-60	25-30	5-10
	44-60	stratified extremely cobbly coarse sand to very gravelly fine sandy loam	GM, GP-GM	A-1	0-5	10-40	25-45	20-35	5-25	5-15	---	NP
Connel-----	0-6	gravelly fine sandy loam	GM, SM	A-2, A-4	0	0-5	60-80	55-75	45-65	25-50	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	60-75	55-70	20-25	NP-5
	20-60	stratified extremely gravelly coarse sand to very gravelly loamy sand	GP, GP-GM	A-1	0	0-10	15-55	10-45	5-35	0-10	---	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						
				Pct	Pct					Pct		
192: Beeox-----	In											
	0-3	very fine sandy loam	ML	A-4	0	0-10	90-100	80-100	70-95	55-80	25-35	NP-5
	3-12	silt loam, very fine sandy loam	ML	A-4	0	0-10	90-100	80-100	70-95	55-80	25-35	NP-5
	12-21	clay, clay loam	CH, CL	A-7	0-1	0-10	85-100	80-100	70-95	60-80	40-60	20-35
	21-44	loam, gravelly fine sandy loam, sandy loam	CL-ML, SC-SM	A-4	0-1	0-10	70-95	65-90	50-75	35-60	25-30	5-10
	44-60	stratified extremely cobbly coarse sand to very gravelly fine sandy loam	GM, GP-GM	A-1	0-5	10-40	25-45	20-35	5-25	5-15	---	NP
Bliss-----	0-4	very fine sandy loam	ML	A-4	0	0	85-100	85-100	80-95	50-70	15-25	NP-5
	4-22	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	65-90	40-70	15-20	NP-5
	22-28	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	60-90	35-65	---	NP
	28-56	cemented			---	---	---	---	---	---	---	---
	56-62	variable			---	---	---	---	---	---	---	---
200: Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-100	20-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	15-20	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	90-100	75-100	70-80	10-30	---	NP
201: Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
202: Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
203: Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-90	20-35	---	NP
	5-20	fine sandy loam, loam, sandy loam	ML, SM	A-4	0	0	90-100	85-100	80-95	35-60	20-25	NP-5
	20-50	stratified coarse sand to fine sandy loam	SM	A-2	0	0	85-100	85-100	70-90	20-30	---	NP
	50-60	cemented			---	---	---	---	---	---	---	---
Goldrun-----	0-7	fine sand	SM	A-2	0	0	100	100	75-90	15-35	---	NP
	7-67	fine sand	SM	A-2	0	0	100	100	75-90	10-20	---	NP

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
204: Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
Blackhawk-----	0-4	loamy fine sand	SM	A-2	0	0	95-100	95-100	75-90	25-35	---	NP
	4-19	silt loam, loam, very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	30-35	NP-5
	19-24	cemented			---	---	---	---	---	---	---	---
	24-60	stratified gravelly coarse sand to loam	SM	A-1, A-2	0	0	85-100	80-100	35-50	10-30	---	NP
205: Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
Hawsley-----	0-3	loamy sand	SM	A-2	0	0	100	90-100	60-75	20-35	---	NP
	3-60	stratified coarse sand to fine sand	SM, SP-SM	A-2, A-3	0	0	85-100	75-100	55-70	5-25	---	NP
206: Broyles-----	0-3	very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-100	50-70	20-25	NP-5
	3-12	silt loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	75-90	40-55	20-25	NP-5
	12-60	stratified gravelly loamy sand to loam	SM	A-2	0	0	70-100	60-95	30-40	25-35	0-14	NP
Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
Dun Glen-----	0-6	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	50-65	15-25	NP-5
	6-23	silt loam, very fine sandy loam	ML	A-4	0	0	95-100	90-100	85-100	55-70	15-25	NP-5
	23-60	fine sandy loam, very fine sandy loam, loam	ML, SM	A-4	0	0	90-100	85-100	70-85	35-55	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	
207: Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
Pumper-----	0-4	sandy loam	SM	A-4	0	0	80-100	75-100	55-70	35-50	20-30	NP-5
	4-11	loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0	0	80-100	75-100	70-90	40-60	25-35	NP-5
	11-18	very gravelly very fine sandy loam, extremely gravelly loam	GM, GP-GM	A-1	0	0-5	15-40	10-35	5-30	5-25	15-30	NP-5
	18-60	stratified extremely gravelly coarse sand to very gravelly sand	GP, GP-GM	A-1	0	0-5	15-40	10-35	5-15	0-10	0-14	NP
208: Davey-----	0-5	fine sandy loam	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
210: Flue-----	0-6	silt loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	13-35	clay, clay loam, gravelly clay loam	CL, CH, GC	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated			---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	NP
Connel-----	0-6	gravelly fine sandy loam	GM, SM	A-2, A-4	0	0-5	60-80	55-75	45-65	25-50	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	60-75	55-70	20-25	NP-5
	20-60	stratified extremely gravelly coarse sand to very gravelly loamy sand	GP, GP-GM	A-1	0	0-10	15-55	10-45	5-35	0-10	---	NP

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct						
211: Flue-----	0-6	very fine sandy loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	13-35	clay, clay loam, gravelly clay loam	CH, CL, GC	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated			---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	NP
Golconda-----	0-13	silt loam	ML	A-4	0	0	95-100	90-100	80-100	65-90	20-30	NP-5
	13-22	gravelly clay loam, clay loam, silty clay loam	CL, GC	A-6, A-7	0	0	60-95	55-90	50-90	40-80	35-45	15-20
	22-26	cemented			---	---	---	---	---	---	---	---
	26-60	variable			---	---	---	---	---	---	---	---
Snapp-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	75-95	45-65	20-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GP-GM, SM, GM, SP-SM	A-1	0	0	25-60	15-50	10-40	5-15	0-14	NP
212: Flue-----	0-6	silt loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	13-35	clay, clay loam, gravelly clay loam	CL, CH, GC	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated			---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	NP
Orovada-----	0-8	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	20-30	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-95	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	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	
213: Flue-----	0-6	silt loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	13-35	clay, clay loam, gravelly clay loam	CL, CH, GC	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated			---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	NP
Puett-----	0-5	very gravelly loam	GM	A-1, A-2	0	0-10	50-60	40-50	35-45	20-35	15-20	NP-5
	5-10	coarse sandy loam, gravelly loam, sandy loam	ML, GM, SM	A-1, A-2, A-4	0	0	55-95	50-90	30-80	15-55	---	NP
	10-14	weathered bedrock			---	---	---	---	---	---	---	---
215: Flue-----	0-6	gravelly loam	GM, ML	A-4	0	0-5	55-80	50-75	45-65	35-60	20-25	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0-5	80-100	75-100	65-90	50-70	20-35	NP-5
	13-35	clay, clay loam, gravelly clay loam	CH, GC, CL	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated			---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	NP
Snapp-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	75-95	45-65	20-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GP-GM, SM, GM, SP-SM	A-1	0	0	25-60	15-50	10-40	5-15	0-14	NP
Snapp-----	0-5	very cobbly very fine sandy loam	GM	A-2, A-4	0-5	25-35	55-70	50-65	45-60	25-40	15-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CL, CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	45-65	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GP-GM, GM, SM, SP-SM	A-1	0	0-10	25-60	15-50	10-40	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	
216: Flue-----	0-6	very fine sandy loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	13-35	clay, clay loam, gravelly clay loam	CH, CL, GC	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated			---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	NP
217: Flue-----	0-6	loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	13-35	clay, clay loam, gravelly clay loam	CH, CL, GC	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated			---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	NP
218: Flue-----	0-6	gravelly loam	GM, ML	A-4	0	0-5	55-80	50-75	45-65	35-60	20-25	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0-5	80-100	75-100	65-90	50-70	20-35	NP-5
	13-35	clay, clay loam, gravelly clay loam	CL, CH, GC	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated			---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	NP
Rodock-----	0-2	loam	ML, SM	A-4	0	0	85-100	80-95	65-90	45-80	20-25	NP-5
	2-20	loam, fine sandy loam, gravelly loam	CL, SC-SM, CL-ML, SC	A-4, A-2, A-6	0	0	65-95	55-90	50-75	30-55	25-35	5-15
	20-27	gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-2, A-1, A-4	0	0	55-80	50-75	35-65	15-40	15-25	NP-5
	27-60	stratified extremely gravelly coarse sand to very gravelly loam	GM, GP-GM	A-1	0	0-15	20-50	15-45	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	
Snapp-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	75-95	45-65	20-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GP-GM, SM, GM, SP-SM	A-1	0	0	25-60	15-50	10-40	5-15	0-14	NP
222: Bloor-----	0-15	very fine sandy loam	ML	A-4	0	0	100	100	85-100	50-75	15-25	NP-5
	15-30	silty clay loam, clay loam	CL	A-6, A-7	0	0	100	100	95-100	75-95	35-45	15-25
	30-42	silt loam, loam	ML	A-4	0	0	100	100	85-100	75-90	20-25	NP-5
	42-60	stratified sandy loam to silty clay loam	ML, CL-ML, SC-SM, SM	A-4	0	0	80-100	75-100	60-95	45-75	20-30	NP-10
231: Dun Glen-----	0-6	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	50-65	15-25	NP-5
	6-23	silt loam, very fine sandy loam	ML	A-4	0	0	95-100	90-100	85-100	55-70	15-25	NP-5
	23-60	fine sandy loam, very fine sandy loam, loam	ML, SM	A-4	0	0	90-100	85-100	70-85	35-55	15-25	NP-5
233: Dun Glen-----	0-6	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	50-65	15-25	NP-5
	6-23	silt loam, very fine sandy loam	ML	A-4	0	0	95-100	90-100	85-100	55-70	15-25	NP-5
	23-60	fine sandy loam, very fine sandy loam, loam	ML, SM	A-4	0	0	90-100	85-100	70-85	35-55	15-25	NP-5
241: Sojur-----	0-5	extremely channery silt loam	GC-GM	A-2	0	15-30	40-50	20-30	15-25	10-20	25-30	5-10
	5-9	unweathered bedrock			---	---	---	---	---	---	---	---
250: Connel-----	0-6	fine sandy loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	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	
Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
Goldrun-----	0-7	fine sand	SM	A-2	0	0	100	100	75-90	15-35	---	NP
	7-67	fine sand	SM	A-2	0	0	100	100	75-90	10-20	---	NP
251: Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-95	60-80	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	NP
252: Connel-----	0-6	gravelly fine sandy loam	GM, SM	A-2, A-4	0	0-5	60-80	55-75	45-65	25-50	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	60-75	55-70	20-25	NP-5
	20-60	stratified extremely gravelly coarse sand to very gravelly loamy sand	GP, GP-GM	A-1	0	0-10	15-55	10-45	5-35	0-10	---	NP
253: Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	90-100	85-100	75-95	55-75	20-30	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	35-55	25-45	10-30	0-10	0-14	NP
McConnel-----	0-16	loam	ML	A-4	0	0	90-100	85-100	65-80	55-70	20-25	NP-5
	16-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP, GP-GM	A-1	0	0-15	25-35	10-35	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	
254: Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-95	60-80	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	NP
Zevadex-----	0-9	loam	CL, CL-ML	A-4, A-6	0	0	85-100	75-100	65-95	50-65	20-35	5-15
	9-20	sandy clay loam, clay loam, loam	CL, SC	A-6	0	0	85-100	75-100	60-90	35-65	30-40	10-20
	20-55	fine sandy loam, very fine sandy loam	SC-SM, SM	A-4	0	0	85-100	75-100	65-90	40-50	15-25	NP-10
	55-60	loamy sand, loamy fine sand, fine sandy loam	SM	A-4	0	0	85-100	75-100	60-80	35-45	---	NP
255: Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-95	60-80	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	NP
McConnel-----	0-16	gravelly fine sandy loam	SM	A-2, A-4	0	0	65-80	60-75	45-60	30-40	15-25	NP-5
	16-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP	A-1	---	0-15	25-35	10-35	5-15	0-5	0-14	NP
257: Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-95	60-80	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	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	
258: Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	90-100	85-100	75-95	55-75	20-30	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	35-55	25-45	10-30	0-10	0-14	NP
262: Golconda-----	0-13	silt loam	ML	A-4	0	0	95-100	90-100	80-100	65-90	20-30	NP-5
	13-22	gravelly clay loam, clay loam, silty clay loam	CL, GC	A-6, A-7	0	0	60-95	55-90	50-90	40-80	35-45	15-20
	22-26	cemented			---	---	---	---	---	---	---	---
	26-60	variable			---	---	---	---	---	---	---	---
Snapp-----	0-5	loam	ML	A-4	0	0	95-100	90-100	75-95	55-75	20-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GP-GM, GM, SM, SP-SM	A-1	0	0	25-60	15-50	10-40	5-15	0-14	NP
263: Bliss-----	0-4	very fine sandy loam	ML	A-4	0	0	85-100	85-100	80-95	50-70	15-25	NP-5
	4-22	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	65-90	40-70	15-20	NP-5
	22-28	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	60-90	35-65	---	NP
	28-56	cemented			---	---	---	---	---	---	---	---
	56-62	variable			---	---	---	---	---	---	---	---
Golconda-----	0-13	very fine sandy loam	ML, SM	A-4	0	0-10	95-100	90-100	75-95	45-65	20-30	NP-5
	13-22	gravelly clay loam, clay loam, silty clay loam	CL, GC	A-6, A-7	0	0	60-95	55-90	50-90	40-80	35-45	15-20
	22-26	cemented			---	---	---	---	---	---	---	---
	26-60	variable			---	---	---	---	---	---	---	---
Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-95	60-80	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	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	
Burrita-----	0-7	very gravelly loam	GM	A-1, A-2	0	0-10	35-60	30-50	20-45	15-35	20-25	NP-5
	7-14	very cobbly clay, very stony clay loam, very gravelly clay loam	GC	A-2, A-7	0	10-55	40-65	30-55	25-50	20-45	40-55	20-30
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
292: Havingdon-----	0-7	very cobbly loam	GC, GC-GM	A-4, A-2, A-6	0-5	30-45	45-60	40-55	35-50	25-40	25-35	5-15
	7-25	very gravelly clay, very gravelly sandy clay, extremely gravelly clay	GC	A-2	0	0-5	20-40	15-35	15-35	10-30	40-50	15-25
	25-29	unweathered bedrock			---	---	---	---	---	---	---	---
Gowjai-----	0-11	gravelly very fine sandy loam	ML, GM, SM	A-4	0	5-15	55-80	50-75	45-70	35-55	15-25	NP-5
	11-36	very gravelly silt loam, very gravelly silty clay loam	GC, GM	A-2, A-7, A-6	0	0-20	35-65	30-50	25-50	20-45	35-50	15-20
	36-52	very gravelly very fine sandy loam, very gravelly silt loam	GM	A-1, A-2, A-4	0-5	10-20	35-65	30-55	25-50	20-45	15-25	NP-5
	52-62	unweathered bedrock			---	---	---	---	---	---	---	---
Walti-----	0-4	very cobbly loam	CL-ML, ML	A-4	1-5	30-40	75-90	65-80	55-70	50-60	20-30	NP-10
	4-8	clay loam, gravelly clay loam	CL	A-6	0	0-10	90-100	65-90	60-80	50-65	35-40	15-20
	8-20	clay, gravelly clay	CH, MH	A-7	0	0-10	90-100	65-90	60-80	50-75	55-65	25-35
	20-24	unweathered bedrock			---	---	---	---	---	---	---	---
302: Essal-----	0-18	very fine sandy loam	ML	A-4	0	0	95-100	95-100	85-95	60-80	25-30	NP-5
	18-34	stratified very fine sand to silt loam	SM	A-4	0	0	100	100	70-80	40-50	---	NP
	34-60	fine sand, loamy fine sand	SM	A-2	0	0	100	100	65-80	20-35	---	NP
Isolde-----	0-3	fine sand	SP, SP-SM	A-3	0	0	100	100	75-90	0-10	---	NP
	3-60	fine sand, sand	SP, SP-SM	A-3	0	0	100	100	50-80	0-10	---	NP
Playas-----	0-6	silty clay loam	CL, ML	A-7	0	0	100	100	100	90-100	45-50	20-25
	6-60	silty clay loam, clay, silty clay	CH, CL, MH	A-7	0	0	100	100	100	90-100	45-75	20-40

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	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
305: Essal-----	0-2	loamy fine sand	SM	A-2	0	0	100	100	80-100	15-30	---	NP
	2-34	stratified very fine sand to silt loam	ML	A-4	0	0	100	95-100	70-80	55-75	15-25	NP-5
	34-60	stratified fine sand to loamy fine sand	SM	A-2	0	0	100	95-100	65-80	20-35	---	NP
Isolde-----	0-3	fine sand	SP, SP-SM	A-3	0	0	100	100	75-90	0-10	---	NP
	3-60	fine sand, sand	SP, SP-SM	A-3	0	0	100	100	50-80	0-10	---	NP
Hawsley-----	0-3	fine sand	SM	A-2	0	0	100	100	75-95	15-30	---	NP
	3-60	stratified coarse sand to fine sand	SM, SP-SM	A-2, A-3	0	0	85-100	75-100	55-70	5-25	---	NP
307: Essal-----	0-2	loamy fine sand	SM	A-2	0	0	100	100	80-100	15-30	---	NP
	2-34	stratified very fine sand to silt loam	ML	A-4	0	0	100	95-100	70-80	55-75	15-25	NP-5
	34-60	stratified fine sand to loamy fine sand	SM	A-2	0	0	100	95-100	65-80	20-35	---	NP
Isolde-----	0-3	fine sand	SP, SP-SM	A-3	0	0	100	100	75-90	0-10	---	NP
	3-60	fine sand, sand	SP, SP-SM	A-3	0	0	100	100	50-80	0-10	---	NP
Tresed-----	0-10	loamy fine sand	SM	A-2, A-4	0	0	100	100	75-90	25-45	0-14	NP
	10-25	silty clay, clay, clay loam	CH	A-7	0	0	100	100	90-100	80-95	50-65	30-40
	25-60	stratified very fine sand to silt loam	ML	A-4	0	0	100	100	85-95	55-75	25-30	NP-5
311: Harcany-----	0-4	very cobbly silt loam	GM, ML	A-4	0-5	20-35	55-75	50-65	40-65	35-60	15-20	NP-5
	4-18	very gravelly silt loam	GM	A-2, A-4	0-10	5-25	55-70	40-50	35-45	30-40	25-30	NP-5
	18-72	extremely gravelly sandy loam	GP-GM, GW-GM	A-1	0-10	5-25	25-40	15-35	10-20	5-10	20-25	NP-5
Croesus-----	0-3	very stony loam	GM	A-2	5-10	5-25	40-60	35-50	30-45	25-35	20-25	NP-5
	3-33	extremely gravelly loam, very gravelly sandy loam, very gravelly loam	GM, GP-GM	A-1	0-10	0-30	25-45	20-40	10-35	5-25	20-25	NP-5
	33-37	unweathered bedrock			---	---	---	---	---	---	---	---
Hackwood-----	0-32	silt loam	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	70-85	60-75	25-35	5-15
	32-60	gravelly loam, gravelly silt loam	CL-ML, CL, GC-GM, SC-SM	A-4, A-6	0	0	60-80	50-75	40-70	35-65	25-35	5-15
312: Harcany-----	0-4	gravelly loam	GM, ML	A-4	0	0-5	55-80	50-75	45-65	35-60	20-25	NP-5
	4-18	very gravelly silt loam	GM	A-2, A-4	0	15-25	45-55	40-50	35-45	30-40	15-20	NP-5
	18-72	extremely gravelly sandy loam	GP-GM, GW-GM	A-1	0-5	10-25	20-30	15-25	10-20	5-10	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	
Hackwood-----	0-32	silt loam	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	70-85	60-75	25-35	5-15
	32-60	gravelly loam, gravelly silt loam	CL-ML, GC-GM, CL, SC-SM	A-4, A-6	0	0	60-80	50-75	40-70	35-65	25-35	5-15
Cleavage-----	0-7	very gravelly loam	GC, GC-GM	A-2, A-4, A-6	0	0-10	50-70	30-50	25-45	20-40	25-35	5-15
	7-16	very cobbly clay loam, extremely gravelly clay loam, very gravelly loam	GC	A-2	0-5	0-45	40-55	30-45	25-45	20-35	30-45	10-20
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
321: Humboldt-----	0-18	silty clay loam	CL	A-6, A-7	0	0	100	100	100	90-100	35-45	15-20
	18-60	stratified silty clay loam to clay	MH	A-7	0	0	90-100	90-100	85-100	80-100	50-60	15-25
322: Humboldt-----	0-18	silty clay loam	CL	A-7	0	0	100	100	100	90-100	40-50	20-25
	18-60	stratified silty clay loam to clay	MH	A-7	0	0	90-100	90-100	85-100	80-100	50-60	15-25
325: Humboldt-----	0-18	silty clay loam	CL	A-6, A-7	0	0	100	100	100	90-100	35-45	15-20
	18-60	stratified silty clay loam to clay	MH	A-7	0	0	90-100	90-100	85-100	80-100	50-60	15-25
Wendane-----	0-20	silt loam	ML	A-4	0	0	100	100	90-100	70-85	30-40	NP-10
	20-35	silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	70-80	30-40	NP-10
	35-60	stratified silt loam to clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-95	35-45	10-20
330: McConnel-----	0-1	fine sandy loam	ML, SM	A-4	0	0	95-100	85-95	65-75	45-55	15-25	NP-5
	1-16	loam, sandy loam, fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	65-80	45-60	15-25	NP-5
	16-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP	A-1	0	0-15	25-35	10-35	5-15	0-5	0-14	NP
331: McConnel-----	0-1	gravelly fine sandy loam	GM	A-2, A-4	0	0	60-70	50-70	40-60	25-45	15-25	NP-5
	1-16	loam, sandy loam, fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	65-80	45-60	15-25	NP-5
	16-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP	A-1	0	0-15	25-35	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 Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct						
333: McConnel-----	0-9	loamy very fine sand	ML, SM	A-4	0	0	100	100	60-80	45-60	---	NP
	9-16	very fine sandy loam, loam	ML, SM	A-4	0	0	85-100	75-100	65-90	40-60	20-25	NP-5
	16-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP, GP-GM	A-1	0	0-15	20-45	15-35	5-15	0-10	---	NP
Shabliss-----	0-4	very fine sandy loam	ML, SM	A-4	0	0-5	95-100	95-100	85-95	45-70	0-14	NP
	4-15	very fine sandy loam, loam, silt loam	ML	A-4	0	0-5	95-100	95-100	80-95	60-75	0-14	NP
	15-20	cemented			---	---	---	---	---	---	---	---
	20-52	very fine sandy loam, fine sandy loam, silt loam	ML, SM	A-4	0	0-5	95-100	85-95	70-90	40-65	0-14	NP
	52-62	loamy sand, gravelly loamy sand	SM	A-1	0	0-5	70-85	60-80	35-50	10-25	0-14	NP
335: McConnel-----	0-1	very gravelly fine sandy loam	GM	A-1	0	0	45-60	35-50	25-45	10-25	---	NP
	1-16	gravelly loam, gravelly sandy loam	GC-GM, GM	A-1, A-2, A-4	0	0	55-75	50-70	40-65	20-50	20-30	NP-10
	16-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP	A-1	0	0-15	25-35	10-25	5-15	0-5	---	NP
338: McConnel-----	0-1	gravelly fine sandy loam	GM	A-2, A-4	0	0	60-70	50-70	40-60	25-45	15-25	NP-5
	1-16	loam, sandy loam, fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	65-80	45-60	15-25	NP-5
	16-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP	A-1	0	0-15	25-35	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	
Tusel-----	0-22	gravelly loam	GM, SM	A-4	0	0-10	55-80	50-75	45-70	35-50	25-35	NP-10
	22-46	extremely gravelly sandy clay loam, extremely gravelly clay loam, very gravelly clay loam	GC	A-2	0	15-45	30-50	25-40	20-35	15-30	30-40	10-20
	46-50	unweathered bedrock			---	---	---	---	---	---	---	---
381: Bullump-----	0-23	gravelly loam	GC, SC	A-6	0	0-10	60-85	50-75	45-65	35-50	25-35	10-15
	23-52	very gravelly clay loam, very gravelly loam, very gravelly sandy clay loam	GC	A-6, A-2, A-7	0	0-15	40-65	30-50	25-45	15-40	35-45	15-20
	52-56	unweathered bedrock			---	---	---	---	---	---	---	---
Tusel-----	0-22	gravelly loam	GM, SM	A-4	0	0-10	55-80	50-75	45-70	35-50	25-35	NP-10
	22-46	extremely gravelly sandy clay loam, extremely gravelly clay loam, very gravelly clay loam	GC	A-2	0	15-45	30-50	25-40	20-35	15-30	30-40	10-20
	46-50	unweathered bedrock			---	---	---	---	---	---	---	---
Hackwood-----	0-32	silt loam	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	70-85	60-75	25-35	5-15
	32-60	gravelly loam, gravelly silt loam	CL, SC-SM, CL-ML, GC-GM	A-4, A-6	0	0	60-80	50-75	40-70	35-65	25-35	5-15
391: Aycab-----	0-2	very bouldery loamy coarse sand	SM	A-1	10-20	0-5	80-95	65-75	15-25	10-20	---	NP
	2-24	gravelly coarse sandy loam	SM	A-1	0	0	80-95	55-75	25-40	15-25	20-25	NP-5
	24-28	weathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop---	---	---	---	---	---	---	---	---	---	---	---	---
403: Orovada-----	0-8	fine sandy loam	SM	A-2, A-4	0	0	95-100	90-100	75-95	30-50	---	NP
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-100	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-100	60-85	35-55	20-30	NP-5
406: Orovada-----	0-8	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	20-30	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-100	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-100	60-85	35-55	20-30	NP-5

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
407: Orovada-----	0-8	loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	25-35	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-100	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-100	60-85	35-55	20-30	NP-5
409: Orovada-----	0-8	fine sandy loam	SM	A-2, A-4	0	0	95-100	90-100	75-95	30-50	---	NP
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-95	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	NP-5
Goldrun-----	0-7	loamy fine sand	SM	A-2	0	0	100	100	75-90	15-35	---	NP
	7-67	fine sand	SM	A-2	0	0	100	100	75-90	10-20	---	NP
410: Bliss-----	0-4	loamy fine sand	SM	A-2	0	0	95-100	90-100	80-90	25-35	0-14	NP
	4-22	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	65-90	40-70	15-20	NP-5
	22-28	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	65-90	35-65	0-14	NP
	28-60	cemented			---	---	---	---	---	---	---	---
Orovada-----	0-2	loamy fine sand	SM	A-2, A-4	0	0	90-100	85-100	80-90	20-40	0-14	NP
	2-26	fine sandy loam, loam, very fine sandy loam	ML, SM	A-4	0	0	75-100	75-95	60-85	40-70	20-30	NP-5
	26-60	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	NP-5
411: Orovada-----	0-8	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	20-30	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-95	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	NP-5
Dugchip-----	0-5	very fine sandy loam	ML	A-4	0	0-5	90-100	85-100	80-100	50-60	20-30	NP-5
	5-18	silt loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0-1	0-10	85-100	80-100	75-100	40-60	25-30	NP-5
	18-31	clay loam, loam	CL	A-6	0	0-5	85-100	80-100	75-100	55-70	35-40	15-20
	31-39	indurated			---	---	---	---	---	---	---	---
	39-60	extremely gravelly loamy sand, very gravelly sand, very gravelly loamy sand	GP-GM, SP-SM	A-1	0-1	5-15	25-60	20-50	10-30	5-10	---	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	
417: Orovada-----	0-8	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	20-30	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-100	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-100	60-85	35-55	20-30	NP-5
Connel-----	0-6	fine sandy loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	NP
420: Bubus-----	0-5	silt loam	ML	A-4	0	0	85-100	75-100	70-80	50-60	25-30	NP-5
	5-63	stratified sandy loam to silt loam	ML	A-4	0	0	95-100	90-100	80-90	50-60	25-30	NP-5
431: Preble-----	0-10	very fine sandy loam	ML	A-4	0	0	100	95-100	85-95	65-75	20-25	NP-5
	10-55	fine sandy loam, very fine sandy loam	ML	A-4	0	0	100	95-100	75-85	50-60	15-25	NP-5
	55-65	gravelly sand	SM, SP-SM	A-1	0	0	90-100	60-75	30-40	5-15	0-14	NP
432: Preble-----	0-10	silt loam	ML	A-4	0	0	100	95-100	85-95	65-75	20-25	NP-5
	10-55	fine sandy loam, very fine sandy loam	ML	A-4	0	0	100	95-100	75-85	50-60	15-25	NP-5
	55-65	gravelly sand	SM, SP-SM	A-1	0	0	90-100	60-75	30-40	5-15	0-14	NP
Goldrun-----	0-7	fine sand	SM	A-2	0	0	100	100	75-90	15-35	0-14	NP
	7-60	fine sand	SM	A-2	0	0	100	100	75-90	10-20	0-14	NP
Playas-----	0-6	silty clay loam	CL	A-7	0	0	100	100	100	90-100	45-50	20-25
	6-60	silty clay loam, clay, silty clay	CH, MH, CL	A-7	0	0	100	100	100	90-100	45-75	20-40
435: Preble-----	0-10	silt loam	ML	A-4	0	0	100	95-100	85-95	65-75	20-25	NP-5
	10-55	fine sandy loam, very fine sandy loam	ML	A-4	0	0	100	95-100	75-85	50-60	15-25	NP-5
	55-65	gravelly sand	SM, SP-SM	A-1	0	0	90-100	60-75	30-40	5-15	0-14	NP
436: Preble-----	0-10	fine sandy loam	ML	A-4	0	0	100	95-100	80-90	55-65	20-25	NP-5
	10-55	fine sandy loam, very fine sandy loam	ML	A-4	0	0	100	95-100	75-85	50-60	15-25	NP-5
	55-65	gravelly sand	SM, SP-SM	A-1	0	0	90-100	60-75	30-40	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	
Valmy-----	0-3	fine sandy loam	ML, SM	A-2, A-4	0	0-5	85-100	80-100	60-80	30-55	15-25	NP-5
	3-43	stratified gravelly coarse sandy loam to very fine sandy loam	SM	A-1, A-4, A-2	0	0-5	80-100	75-100	40-70	20-45	15-25	NP-5
	43-66	gravelly sand, very gravelly sand	GP-GM, GM, SM, SP-SM	A-1	0	0-10	40-75	30-70	20-45	5-15	---	NP
Valmy-----	0-3	very fine sandy loam	SM	A-4	0	0-5	90-100	85-100	60-75	35-50	15-25	NP-5
	3-60	stratified gravelly coarse sandy loam to very fine sandy loam	SM	A-2, A-1, A-4	0	0-5	65-95	60-90	45-70	15-45	15-25	NP-5
437: Preble-----	0-10	very fine sandy loam	ML	A-4	0	0	100	95-100	85-95	65-75	20-25	NP-5
	10-55	fine sandy loam, very fine sandy loam	ML	A-4	0	0	100	95-100	75-85	50-60	15-25	NP-5
	55-65	gravelly sand	SM, SP-SM	A-1	0	0	90-100	60-75	30-40	5-15	0-14	NP
Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-100	20-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	15-20	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	90-100	75-100	70-80	10-30	---	NP
438: Preble-----	0-10	very fine sandy loam	ML	A-4	0	0	100	95-100	85-95	65-75	20-25	NP-5
	10-55	fine sandy loam, very fine sandy loam	ML	A-4	0	0	100	95-100	75-85	50-60	15-25	NP-5
	55-65	gravelly sand	SM, SP-SM	A-1	0	0	90-100	60-75	30-40	5-15	0-14	NP
Bubus-----	0-5	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-80	50-60	25-30	NP-5
	5-63	stratified sandy loam to silt loam	ML	A-4	0	0	95-100	90-100	80-90	50-60	25-30	NP-5
440: Prideen-----	0-7	silt loam	CL-ML, ML	A-4	0	0	95-100	95-100	95-100	70-80	15-25	NP-10
	7-46	silt loam, silty clay loam	ML	A-6, A-4, A-7	0	0	95-100	95-100	95-100	75-90	30-45	5-15
	46-61	silty clay loam, silty clay	CH, MH, ML	A-7	0	0	95-100	95-100	95-100	80-95	45-60	15-30
441: Prideen-----	0-7	silt loam	CL-ML, ML	A-4	0	0	95-100	95-100	95-100	70-80	15-25	NP-10
	7-46	silt loam, silty clay loam	ML	A-4, A-6, A-7	0	0	95-100	95-100	95-100	75-90	30-45	5-15
	46-61	silty clay loam, silty clay	CH, MH, ML	A-7	0	0	95-100	95-100	95-100	80-95	45-60	15-30

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	
452: Kingsriver-----	0-12	loam	ML	A-4	0	0	90-100	85-100	70-90	50-85	20-25	NP-5
	12-60	stratified sandy loam to silt loam	SM	A-2, A-4	0	0	90-100	85-100	60-85	25-40	15-25	NP-5
453: Kingsriver-----	0-12	loam	ML	A-4	0	0	90-100	85-100	70-90	50-85	20-25	NP-5
	12-60	stratified sandy loam to silt loam	SM	A-2, A-4	0	0	90-100	85-100	60-85	25-40	15-25	NP-5
460: Rad-----	0-6	loamy fine sand	SM	A-2, A-4	0	0	95-100	95-100	70-80	30-40	---	NP
	6-20	stratified fine sandy loam to silt loam	ML	A-4	0	0	100	95-100	80-95	65-85	30-35	NP-5
	20-39	very fine sandy loam, silt loam	ML	A-4	0	0	100	100	95-100	75-85	25-30	NP-5
	39-60	stratified sandy loam to silt loam	ML	A-4	0	0	95-100	95-100	80-90	65-75	25-30	NP-5
461: Rad-----	0-6	fine sandy loam	ML, SM	A-4	0	0	95-100	95-100	75-85	45-55	---	NP
	6-20	stratified fine sandy loam to silt loam	ML	A-4	0	0	100	95-100	80-95	65-85	30-35	NP-5
	20-39	very fine sandy loam, silt loam	ML	A-4	0	0	100	100	95-100	75-85	25-30	NP-5
	39-60	stratified sandy loam to silt loam	ML	A-4	0	0	95-100	95-100	80-90	65-75	25-30	NP-5
462: Rad-----	0-6	fine sandy loam	ML, SM	A-4	0	0	95-100	95-100	75-85	45-55	---	NP
	6-20	stratified fine sandy loam to silt loam	ML	A-4	0	0	100	95-100	80-95	65-85	30-35	NP-5
	20-39	very fine sandy loam, silt loam	ML	A-4	0	0	100	100	95-100	75-85	25-30	NP-5
	39-60	stratified sandy loam to silt loam	ML	A-4	0	0	95-100	95-100	80-90	65-75	25-30	NP-5
470: Raglan-----	0-6	silt loam	CL-ML, ML	A-4	0	0	95-100	95-100	85-95	75-85	25-35	5-10
	6-14	silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	85-95	75-85	25-40	5-15
	14-64	stratified very fine sandy loam to silty clay loam	CL, ML	A-4, A-6	0	0	95-100	95-100	85-95	60-80	30-40	5-15
471: Raglan-----	0-6	silt loam	CL-ML, ML	A-4	0	0	95-100	95-100	85-95	75-85	25-35	5-10
	6-14	silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	85-95	75-85	25-40	5-15
	14-60	stratified fine sandy loam to silty clay loam	CL, ML	A-4, A-6	0	0	95-100	95-100	85-95	70-80	30-40	5-15

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth In	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
474: Raglan-----	0-6	silt loam	CL-ML, ML	A-4	0	0	95-100	95-100	85-95	75-85	25-35	5-10
	6-14	silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	85-95	75-85	25-40	5-15
	14-60	stratified fine sandy loam to silty clay loam	CL, ML	A-4, A-6	0	0	95-100	95-100	85-95	70-80	30-40	5-15
Kleck-----	0-3	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	50-70	15-25	NP-5
	3-15	stratified silt loam to clay loam	CL	A-6	0	0	100	100	80-95	80-90	25-40	10-20
	15-60	weathered bedrock			---	---	---	---	---	---	---	---
480: Rebel-----	0-4	loam	ML	A-4	0	0	100	90-100	65-85	50-75	20-25	NP-5
	4-60	loam, fine sandy loam, sandy loam	ML	A-4	0	0	100	85-95	70-80	50-60	20-30	NP-5
487: Rebel-----	0-18	fine sandy loam	ML, SM	A-4	0	0	100	100	75-85	40-55	20-25	NP-5
	18-60	fine sandy loam, sandy loam, loam	CL-ML, ML	A-4	0	0	100	85-95	70-80	50-60	20-30	NP-10
490: Rose Creek-----	0-10	loam	ML	A-4	0	0	95-100	90-100	80-90	60-70	25-30	NP-5
	10-60	stratified gravelly sand to silt loam	SM	A-2, A-4	0	0	85-100	70-95	50-70	30-50	20-25	NP-5
491: Rose Creek-----	0-10	silt loam	ML	A-4	0	0	100	100	75-90	60-75	20-30	NP-5
	10-60	stratified gravelly sand to very fine sandy loam	SM	A-4	0	0	90-100	85-95	70-85	35-50	15-25	NP-5
492: Rose Creek-----	0-10	silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	85-95	35-45	15-25
	10-60	stratified gravelly sand to silt loam	SM	A-2, A-4	0	0	85-100	70-95	50-70	30-50	20-25	NP-5
501: Enko-----	0-6	loamy very fine sand	ML, SM	A-4	0	0	90-100	75-100	65-90	40-65	0-14	NP
	6-28	sandy loam, loam, fine sandy loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	60-90	35-70	20-30	5-10
	28-60	sandy loam, fine sandy loam, loam	ML, SM	A-2, A-4	0	0	95-100	85-100	60-90	30-65	15-20	NP-5
502: Enko-----	0-6	loamy very fine sand	ML, SM	A-4	0	0	90-100	75-100	65-90	40-65	0-14	NP
	6-28	sandy loam, loam, fine sandy loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	60-90	35-70	20-30	5-10
	28-60	sandy loam, fine sandy loam, loam	ML, SM	A-2, A-4	0	0	95-100	85-100	60-90	30-65	15-20	NP-5
Goldrun-----	0-7	fine sand	SM	A-2	0	0	100	100	75-90	15-35	---	NP
	7-67	fine sand	SM	A-2	0	0	100	100	75-90	10-20	---	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	
503: Enko-----	0-6	very fine sandy loam	CL-ML	A-4	0	0	95-100	85-100	75-100	50-70	20-30	5-10
	6-12	loam, sandy loam, fine sandy loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	60-90	35-70	20-30	5-10
	12-28	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	75-90	40-65	20-25	5-10
	28-37	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-2, A-4	0	0	85-100	75-100	60-90	30-65	20-25	5-10
	37-60	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-2, A-4	0	0	85-100	75-100	60-90	30-65	20-25	5-10
504: Enko-----	0-6	very fine sandy loam	CL-ML	A-4	0	0	95-100	85-100	75-100	50-70	20-30	5-10
	6-12	loam, sandy loam, fine sandy loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	60-90	35-70	20-30	5-10
	12-28	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	75-90	40-65	20-25	5-10
	28-37	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-2, A-4	0	0	85-100	75-100	60-90	30-65	20-25	5-10
	37-60	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-2, A-4	0	0	85-100	75-100	60-90	30-65	20-25	5-10
Shabliss-----	0-4	very fine sandy loam	ML, SM	A-4	0	0-5	95-100	95-100	85-95	45-70	0-14	NP
	4-15	very fine sandy loam, loam, silt loam	ML	A-4	0	0-5	95-100	95-100	80-95	60-75	0-14	NP
	15-20	cemented			---	---	---	---	---	---	---	---
	20-52	very fine sandy loam, fine sandy loam, silt loam	ML, SM	A-4	0	0-5	95-100	85-95	70-90	40-65	0-14	NP
	52-62	loamy sand, gravelly loamy sand	SM	A-1	0	0-5	70-85	60-80	35-50	10-25	0-14	NP
505: Enko-----	0-28	very fine sandy loam	ML	A-4	0	0	90-100	85-100	75-95	60-80	20-25	NP-5
	28-52	loam, fine sandy loam, sandy loam	CL-ML, ML, SM, SC-SM	A-4	0	0	90-100	85-100	50-90	35-70	15-25	NP-10
	52-60	very gravelly loamy sand, very gravelly sand, extremely gravelly sand	GP, GP-GM	A-1	0-5	0-20	30-55	25-45	15-25	0-10	---	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	
522: Lunder-----	0-9	extremely cobble clay loam	GC	A-2	0-10	30-55	30-40	25-35	20-35	20-30	35-40	15-20
	9-19	cobbly clay	CH	A-7	0-5	10-30	75-95	70-90	60-75	55-70	55-70	30-40
	19-60	indurated			---	---	---	---	---	---	---	---
Hunnton-----	0-6	cobbly loam	ML	A-4	0-1	15-30	80-95	75-90	65-85	55-75	20-25	NP-5
	6-12	loam, clay loam, silty clay loam	CL	A-6	0	0-5	95-100	90-100	75-95	60-90	30-35	10-15
	12-22	gravelly clay, clay	CH	A-7	0	0-5	75-100	60-95	60-95	55-85	50-60	25-35
	22-36	indurated			---	---	---	---	---	---	---	---
	36-60	variable			---	---	---	---	---	---	---	---
530: Shabliss-----	0-4	very fine sandy loam	ML, SM	A-4	0	0-5	95-100	95-100	85-95	45-70	0-14	NP
	4-15	very fine sandy loam, loam, silt loam	ML	A-4	0	0-5	95-100	95-100	80-95	60-75	0-14	NP
	15-20	cemented			---	---	---	---	---	---	---	---
	20-52	very fine sandy loam, fine sandy loam, silt loam	ML, SM	A-4	0	0-5	95-100	85-95	70-90	40-65	0-14	NP
	52-62	loamy sand, gravelly loamy sand	SM	A-1	0	0-5	70-85	60-80	35-50	10-25	0-14	NP
532: Shabliss-----	0-4	very fine sandy loam	ML, SM	A-4	0	0-5	95-100	95-100	85-95	45-70	0-14	NP
	4-15	very fine sandy loam, loam, silt loam	ML	A-4	0	0-5	95-100	95-100	80-95	60-75	0-14	NP
	15-20	cemented			---	---	---	---	---	---	---	---
	20-52	very fine sandy loam, fine sandy loam, silt loam	ML, SM	A-4	0	0-5	95-100	85-95	70-90	40-65	0-14	NP
	52-62	loamy sand, gravelly loamy sand	SM	A-1	0	0-5	70-85	60-80	35-50	10-25	0-14	NP
Enko-----	0-6	very fine sandy loam	CL-ML	A-4	0	0	95-100	85-100	75-100	50-70	20-30	5-10
	6-12	loam, sandy loam, fine sandy loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	60-90	35-70	20-30	5-10
	12-28	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	75-90	40-65	20-25	5-10
	28-37	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-2, A-4	0	0	85-100	75-100	60-90	30-65	20-25	5-10
	37-60	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-2, A-4	0	0	85-100	75-100	60-90	30-65	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	
536: Shabliss-----	0-4	very fine sandy loam	ML, SM	A-4	0	0-5	95-100	95-100	85-95	45-70	0-14	NP
	4-15	very fine sandy loam, loam, silt loam	ML	A-4	0	0-5	95-100	95-100	80-95	60-75	0-14	NP
	15-20	cemented			---	---	---	---	---	---	---	---
	20-52	very fine sandy loam, fine sandy loam, silt loam	ML, SM	A-4	0	0-5	95-100	85-95	70-90	40-65	0-14	NP
	52-62	loamy sand, gravelly loamy sand	SM	A-1	0	0-5	70-85	60-80	35-50	10-25	0-14	NP
Enko-----	0-6	very fine sandy loam	CL-ML	A-4	0	0	95-100	85-100	75-100	50-70	20-30	5-10
	6-12	loam, sandy loam, fine sandy loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	60-90	35-70	20-30	5-10
	12-28	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	75-90	40-65	20-25	5-10
	28-37	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-2, A-4	0	0	85-100	75-100	60-90	30-65	20-25	5-10
	37-60	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-2, A-4	0	0	85-100	75-100	60-90	30-65	20-25	5-10
Dugchip-----	0-5	very fine sandy loam	ML	A-4	0	0-5	90-100	85-100	80-100	50-60	20-30	NP-5
	5-18	silt loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0-1	0-10	85-100	80-100	75-100	40-60	25-30	NP-5
	18-31	clay loam, loam	CL	A-6	0	0-5	85-100	80-100	75-100	55-70	35-40	15-20
	31-39	indurated			---	---	---	---	---	---	---	---
	39-60	extremely gravelly loamy sand, very gravelly sand, very gravelly loamy sand	GP-GM, SP-SM	A-1	0-1	5-15	25-60	20-50	10-30	5-10	---	NP
537: Shabliss-----	0-4	very fine sandy loam	ML, SM	A-4	0	0-5	95-100	95-100	85-95	45-70	0-14	NP
	4-15	very fine sandy loam, loam, silt loam	ML	A-4	0	0-5	95-100	95-100	80-95	60-75	0-14	NP
	15-20	cemented			---	---	---	---	---	---	---	---
	20-52	very fine sandy loam, fine sandy loam, silt loam	ML, SM	A-4	0	0-5	95-100	85-95	70-90	40-65	0-14	NP
	52-62	loamy sand, gravelly loamy sand	SM	A-1	0	0-5	70-85	60-80	35-50	10-25	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 Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
Bliss-----	0-4	very fine sandy loam	ML	A-4	0	0	85-100	85-100	80-95	50-70	15-25	NP-5
	4-22	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	65-90	40-70	15-20	NP-5
	22-28	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	60-90	35-65	---	NP
	28-56 56-62	cemented variable			---	---	---	---	---	---	---	---
Genaw-----	0-5	gravelly loam	GC-GM, SC-SM	A-4	0	0-5	65-80	55-75	45-65	35-50	20-30	5-10
	5-10	gravelly loam, gravelly clay loam	GC, SC	A-6	0	0-5	60-80	55-75	45-65	35-50	25-35	10-15
	10-18	very gravelly loam	GC-GM	A-2	0	0-15	45-55	35-50	25-45	20-35	25-30	5-10
	18-22	unweathered bedrock			---	---	---	---	---	---	---	---
543: Pumper-----	0-4	very fine sandy loam	ML, SM	A-4	0	0	80-100	75-100	70-90	45-60	25-35	NP-5
4-11	loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0	0	80-100	75-100	70-90	40-60	25-35	NP-5	
11-18	very gravelly very fine sandy loam, extremely gravelly loam	GM, GP-GM	A-1	0	0-5	15-40	10-35	5-30	5-25	15-30	NP-5	
18-60	stratified extremely gravelly coarse sand to very gravelly sand	GP, GP-GM	A-1	0	0-5	15-40	10-35	5-15	0-10	0-14	NP	
Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-95	60-80	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	NP
544: Pumper-----	0-4	stony fine sandy loam	SM	A-4	1-5	0-5	85-100	80-95	75-90	40-50	20-30	NP-5
4-11	loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0	0	80-100	75-100	70-90	40-60	25-35	NP-5	
11-18	very gravelly very fine sandy loam, extremely gravelly loam	GM, GP-GM	A-1	0	0-5	15-40	10-35	5-30	5-25	15-30	NP-5	
18-60	stratified extremely gravelly coarse sand to very gravelly sand	GP, GP-GM	A-1	0	0-5	15-40	10-35	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	
Alyan-----	0-17	very gravelly loam	GC	A-2	0	0-5	30-55	25-50	20-40	15-35	25-35	10-15
	17-39	gravelly clay	CH, CL, GC	A-7	0	0-5	55-80	50-75	40-65	35-55	45-60	20-35
	39-43	unweathered bedrock			---	---	---	---	---	---	---	---
557: Ninemile-----	0-2	very stony loam	CL-ML	A-4	5-25	15-40	70-90	70-85	60-75	50-60	25-30	5-10
	2-14	clay, gravelly clay	CH	A-7	0	0-15	70-100	65-100	60-90	50-80	55-65	30-35
	14-24	unweathered bedrock			---	---	---	---	---	---	---	---
558: Ninemile-----	0-2	very gravelly loam	GC-GM	A-2, A-4	0	0-15	40-65	35-55	30-50	25-45	20-30	5-10
	2-14	clay, gravelly clay	CL, CH, SC	A-7	0	0-5	95-100	65-100	55-95	40-80	45-65	20-35
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Anawalt-----	0-2	very gravelly loam	GC	A-2, A-6	0	0-10	35-60	30-50	25-45	20-40	25-35	10-15
	2-16	gravelly clay, clay, gravelly silty clay loam	CL, GC, CH, SC	A-7	0	0-10	60-95	55-90	50-85	40-75	40-70	20-45
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
Vanwyper-----	0-7	very cobbly loam	SC	A-2, A-6	0-5	30-45	70-80	55-65	40-55	30-40	25-35	10-15
	7-27	very cobbly clay loam, very cobbly clay	CL, CH, GC	A-7	0-10	30-55	55-75	50-65	45-60	40-55	40-60	20-40
	27-31	unweathered bedrock			---	---	---	---	---	---	---	---
559: Ninemile-----	0-2	gravelly loam	CL, GC	A-6	0	0-5	60-85	55-75	50-70	35-60	30-35	10-15
	2-14	clay, gravelly clay	CH	A-7	0	0-15	70-100	65-100	60-90	50-80	50-65	25-35
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Devada-----	0-8	gravelly loam	GC, SC	A-6	0	0-5	60-80	55-75	50-70	35-50	25-35	10-15
	8-17	clay, gravelly clay	CH, GC	A-7	0	0-10	60-100	55-100	50-85	45-75	50-65	25-35
	17-27	unweathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop---	---	---	---	---	---	---	---	---	---	---	---	---
561: Sonoma-----	0-6	silt loam	CL	A-6	0	0	100	100	95-100	75-90	30-35	10-15
	6-60	stratified silt loam to silty clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-95	35-50	10-25
562: Sonoma-----	0-6	silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	80-95	35-50	15-25
	6-60	stratified silt loam to silty clay loam	CL, ML	A-6, A-7	0	0	100	100	100	95-100	35-50	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	
563: Sonoma-----	0-6	silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	80-95	35-50	15-25
	6-60	stratified silt loam to silty clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-95	35-50	10-25
564: Sonoma-----	0-6	silt loam	CL	A-6	0	0	95-100	95-100	85-100	70-90	30-35	10-15
	6-60	stratified silt loam to silty clay loam	CL, ML	A-6, A-7	0	0	100	100	100	95-100	35-50	10-25
566: Sonoma-----	0-6	silt loam	CL	A-6	0	0	100	100	95-100	75-90	30-35	10-15
	6-60	stratified silt loam to silty clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-95	35-50	10-25
Paranat-----	0-19	silt loam	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
	19-60	silt loam, silty clay loam	ML	A-4, A-6	0	0	100	100	95-100	90-100	30-40	5-15
567: Sonoma-----	0-6	silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	80-95	35-50	15-25
	6-60	stratified silt loam to silty clay loam	CL, ML	A-6, A-7	0	0	100	100	100	95-100	35-50	10-25
573: Spinlin-----	0-6	very cobbly loam	GC	A-6	0-5	25-35	55-75	50-65	45-60	40-50	25-35	10-15
	6-36	very cobbly clay, very gravelly clay	GC, SC	A-7	0	35-45	55-80	45-70	40-60	35-50	50-65	25-35
	36-46	weathered bedrock			---	---	---	---	---	---	---	---
Harcany-----	0-4	very cobbly silt loam	GM, ML	A-4	0-5	20-35	55-75	50-65	40-65	35-60	15-20	NP-5
	4-18	very gravelly silt loam	GM	A-2, A-4	0-10	5-25	55-70	40-50	35-45	30-40	25-30	NP-5
	18-72	extremely gravelly sandy loam	GP-GM, GW-GM	A-1	0-10	5-25	25-40	15-35	10-20	5-10	20-25	NP-5
Hackwood-----	0-32	silt loam	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	70-85	60-75	25-35	5-15
	32-60	gravelly loam, gravelly silt loam	CL, SC-SM, CL-ML, GC-GM	A-4, A-6	0	0	60-80	50-75	40-70	35-65	25-35	5-15
574: Spinlin-----	0-6	very cobbly loam	GC	A-6	0-5	25-35	55-75	50-65	45-60	40-50	25-35	10-15
	6-36	very cobbly clay, very gravelly clay	GC, SC	A-7	0	35-45	55-80	45-70	40-60	35-50	50-65	25-35
	36-46	weathered bedrock			---	---	---	---	---	---	---	---
Hackwood-----	0-32	silt loam	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	70-85	60-75	25-35	5-15
	32-60	gravelly loam, gravelly silt loam	CL-ML, CL, GC-GM, SC-SM	A-4, A-6	0	0	60-80	50-75	40-70	35-65	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	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
Harcany-----	0-4	gravelly silt loam	GM, ML	A-4	0	0-5	60-85	50-75	40-70	35-65	25-30	NP-5
	4-18	very gravelly silt loam	GM	A-2, A-4	0-10	5-25	55-70	40-50	35-45	30-40	25-30	NP-5
	18-72	extremely gravelly sandy loam	GP-GM, GW-GM	A-1	0-10	5-25	25-40	15-35	10-20	5-10	20-25	NP-5
584: Sumine-----	0-6	cobbly loam	CL-ML	A-4	0	20-30	80-90	75-85	65-75	50-65	20-30	5-10
	6-28	very gravelly clay loam, very cobbly clay loam, very gravelly loam	GC	A-2, A-7, A-6	0	15-40	45-70	35-65	30-50	25-45	35-45	15-25
	28-38	unweathered bedrock			---	---	---	---	---	---	---	---
Ninemile-----	0-2	cobbly loam	ML	A-4	1-5	10-25	85-95	80-90	65-85	50-65	30-35	5-10
	2-14	clay, gravelly clay	CH	A-7	0	0-15	70-100	65-100	60-90	50-80	50-65	25-35
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Tusel-----	0-22	gravelly loam	GM, SM	A-4	0	0-10	55-80	50-75	45-70	35-50	25-35	NP-10
	22-46	extremely gravelly sandy clay loam, extremely gravelly clay loam, very gravelly clay loam	GC	A-2	0	15-45	30-50	25-40	20-35	15-30	30-40	10-20
	46-50	unweathered bedrock			---	---	---	---	---	---	---	---
585: Sumine-----	0-6	very cobbly loam	GC-GM	A-2, A-4	0-5	30-55	55-65	50-60	40-55	30-45	20-30	5-10
	6-28	very gravelly clay loam, very cobbly clay loam, very gravelly loam	GC	A-2, A-6, A-7	0	15-40	45-70	35-65	30-50	25-45	35-45	15-25
	28-38	unweathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop---	---	---	---	---	---	---	---	---	---	---	---	---
Ninemile-----	0-2	very cobbly loam	CL-ML	A-4	1-5	30-65	70-90	70-85	60-75	50-60	25-30	5-10
	2-14	clay, gravelly clay	CH	A-7	0	0-15	70-100	65-100	60-90	50-80	55-65	30-35
	14-24	unweathered bedrock			---	---	---	---	---	---	---	---
586: Sumine-----	0-6	very cobbly loam	GC-GM	A-2, A-4	0-5	30-55	55-65	50-60	40-55	30-45	20-30	5-10
	6-28	very gravelly clay loam, very cobbly	GC	A-2, A-6, A-7	0	15-40	45-70	35-65	30-50	25-45	35-45	15-25

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
				Pct	Pct					Pct		
Rubble Land-----	0-60	fragmental material	GP	A-1	30-65	30-65	0-10	0-5	0-5	0	0-14	NP
Reluctan-----	0-9	very stony loam	CL-ML, SC-SM	A-4	5-10	5-20	70-80	60-75	50-65	40-55	25-30	5-10
	9-38	gravelly loam, gravelly clay loam	CL, GC	A-6, A-7	0-5	0-15	65-85	60-75	55-75	40-60	35-45	15-20
	38-42	unweathered bedrock			---	---	---	---	---	---	---	---
587: Sumine-----	0-6	very cobbly loam	GC-GM	A-2, A-4	0-5	30-55	55-65	50-60	40-55	30-45	20-30	5-10
	6-28	very gravelly clay loam, very cobbly clay loam, very gravelly loam	GC	A-6, A-2, A-7	0	15-40	45-70	35-65	30-50	25-45	35-45	15-25
	28-38	unweathered bedrock			---	---	---	---	---	---	---	---
Gosumi-----	0-8	very cobbly loam	GM, SM	A-1, A-2	5-10	20-35	45-70	35-60	30-50	20-35	20-25	NP-5
	8-32	very gravelly clay, very gravelly clay loam	GC	A-2	0	0-10	40-60	35-50	30-45	25-35	40-55	15-30
	32-50	gravelly sandy loam, very gravelly sandy loam	GM, SM	A-1	0	0-5	50-75	40-65	30-45	15-25	20-25	NP-5
	50-60	unweathered bedrock			---	---	---	---	---	---	---	---
Harcany-----	0-4	gravelly silt loam	GM, ML	A-4	0	0-5	60-85	50-75	40-70	35-65	25-30	NP-5
	4-18	very gravelly silt loam	GM	A-2, A-4	0-10	5-25	55-70	40-50	35-45	30-40	25-30	NP-5
	18-72	extremely gravelly sandy loam	GP-GM, GW-GM	A-1	0-10	5-25	25-40	15-35	10-20	5-10	20-25	NP-5
588: Sumine-----	0-6	very stony loam	SC-SM	A-4	5-15	5-15	70-85	60-75	50-65	35-50	25-30	5-10
	6-28	very gravelly clay loam, very cobbly clay loam, very gravelly loam	GC	A-2, A-6	0	15-40	45-70	35-65	30-50	30-45	30-40	10-20
	28-32	unweathered bedrock			---	---	---	---	---	---	---	---
Cleavage-----	0-7	very cobbly loam	GC, GC-GM	A-4, A-2, A-6	0-5	30-45	55-75	45-65	40-60	25-50	25-35	5-15
	7-16	very cobbly clay loam, extremely cobbly sandy clay loam, very gravelly clay loam	GC	A-2	5-15	10-40	40-55	30-45	25-45	20-35	30-45	10-20
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
Rubble Land-----	0-60	fragmental material	GP	A-1	30-65	30-65	0-10	0-5	0-5	0	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	
Burrita-----	0-7	stony loam	CL-ML	A-4	1-5	10-25	90-100	85-95	75-85	55-65	15-25	5-10
	7-14	very cobbly clay, very stony clay loam, very gravelly clay loam	GC, SC	A-2, A-7	0	10-55	35-75	30-55	25-50	20-45	40-55	20-30
	14-24	unweathered bedrock			---	---	---	---	---	---	---	---
597: Trunk-----	0-6	gravelly loam	GC-GM, GM, SM, SC-SM	A-4	0	0-5	55-80	50-75	45-70	35-50	20-30	NP-10
	6-36	gravelly clay, gravelly clay loam	CL, CH, GC	A-7	0	0-10	55-85	50-80	45-75	40-65	40-55	20-30
	36-40	unweathered bedrock			---	---	---	---	---	---	---	---
Burrita-----	0-7	very gravelly loam	GM	A-1, A-2	1-5	0-10	35-60	30-50	20-45	15-35	20-25	NP-5
	7-14	very cobbly clay, very stony clay loam, very gravelly clay loam	GC	A-2, A-7	0	10-55	40-65	30-55	25-50	20-45	40-55	20-30
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Burrita-----	0-7	stony loam	CL-ML	A-4	1-5	10-25	90-100	85-95	75-85	55-65	15-25	5-10
	7-14	very cobbly clay, very stony clay loam, very gravelly clay loam	GC, SC	A-2, A-7	0	10-55	35-75	30-55	25-50	20-45	40-55	20-30
	14-24	unweathered bedrock			---	---	---	---	---	---	---	---
600: Valmy-----	0-3	fine sandy loam	ML, SM	A-2, A-4	0	0-5	85-100	80-100	60-80	30-55	15-25	NP-5
	3-43	stratified gravelly coarse sandy loam to very fine sandy loam	SM	A-1, A-4, A-2	0	0-5	80-100	75-100	40-70	20-45	15-25	NP-5
	43-66	gravelly sand, very gravelly sand	GP-GM, SM, GM, SP-SM	A-1	0	0-10	40-75	30-70	20-45	5-15	---	NP
603: Valmy-----	0-3	fine sandy loam	ML, SM	A-2, A-4	0	0-5	85-100	80-100	60-80	30-55	15-25	NP-5
	3-43	stratified gravelly coarse sandy loam to very fine sandy loam	SM	A-1, A-4, A-2	0	0-5	80-100	75-100	40-70	20-45	15-25	NP-5
	43-66	gravelly sand, very gravelly sand	GM, SP-SM, GP-GM, SM	A-1	0	0-10	40-75	30-70	20-45	5-15	---	NP
Goldrun-----	0-7	fine sand	SM	A-2	0	0	100	100	75-90	15-35	---	NP
	7-67	fine sand	SM	A-2	0	0	100	100	75-90	10-20	---	NP

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct						
604: Valmy-----	0-3	very fine sandy loam	SM	A-4	0	0	90-100	85-100	60-75	35-50	15-25	NP-5
	3-43	stratified gravelly coarse sandy loam to very fine sandy loam	SM	A-2, A-1, A-4	0	0-5	80-100	75-100	40-70	20-45	15-25	NP-5
	43-66	gravelly sand, very gravelly sand	GP-GM, GM, SM, SP-SM	A-1	0	0-10	40-75	30-70	20-45	5-15	---	NP
Bubus-----	0-5	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-80	50-60	25-30	NP-5
	5-63	stratified sandy loam to silt loam	ML	A-4	0	0	95-100	90-100	80-90	50-60	25-30	NP-5
Needle Peak----	0-4	silt loam	CL, ML	A-6, A-7	0	0	100	100	95-100	80-90	30-45	10-15
	4-60	silt loam, silty clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	80-95	30-50	10-20
606: Valmy-----	0-3	loam	ML	A-4	0	0	90-95	75-90	70-80	50-65	15-25	NP-5
	3-60	stratified gravelly coarse sandy loam to very fine sandy loam	SM	A-2, A-1, A-4	0	0-5	80-95	75-90	40-70	20-45	15-25	NP-5
611: Weso-----	0-5	loamy sand	SM	A-2	0	0	95-100	95-100	60-70	15-25	---	NP
	5-11	fine sandy loam, very fine sandy loam, loam	CL-ML, SM, ML, SC-SM	A-4	0	0	95-100	85-100	70-85	45-60	15-30	NP-10
	11-26	fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	95-100	85-100	70-85	45-60	15-25	NP-5
	26-65	stratified very gravelly loamy sand to fine sandy loam	SM	A-1, A-2	0	0	80-90	70-80	45-55	20-30	---	NP
613: Weso-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	80-90	40-55	15-25	NP-5
	5-11	fine sandy loam, very fine sandy loam, loam	CL-ML, SM, ML, SC-SM	A-4	0	0	95-100	85-100	70-85	45-60	15-30	NP-10
	11-26	fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	95-100	85-100	70-85	45-60	15-25	NP-5
	26-65	stratified very gravelly loamy sand to fine sandy loam	SM	A-1, A-2	0	0	80-90	70-80	45-55	20-30	---	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	
Orovada-----	0-8	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	20-30	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-95	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	NP-5
Shabliss-----	0-4	very fine sandy loam	ML, SM	A-4	0	0-5	95-100	95-100	85-95	45-70	0-14	NP
	4-15	very fine sandy loam, loam, silt loam	ML	A-4	0	0-5	95-100	95-100	80-95	60-75	0-14	NP
	15-20	cemented			---	---	---	---	---	---	---	---
	20-52	very fine sandy loam, fine sandy loam, silt loam	ML, SM	A-4	0	0-5	95-100	85-95	70-90	40-65	0-14	NP
	52-62	loamy sand, gravelly loamy sand	SM	A-1	0	0-5	70-85	60-80	35-50	10-25	0-14	NP
614: Wesco-----	0-5	silt loam	CL-ML, ML	A-4	0	0	95-100	90-100	80-95	75-90	20-30	NP-10
	5-26	sandy loam, fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	80-100	75-95	65-80	40-60	15-25	NP-5
	26-60	stratified very gravelly loamy sand to fine sandy loam	GM, SM	A-1, A-2	0	0-5	45-90	40-85	35-55	20-30	15-25	NP-5
615: Wesco-----	0-5	fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	70-80	40-55	15-25	NP-5
	5-11	fine sandy loam, very fine sandy loam, loam	ML, SC-SM, CL-ML, SM	A-4	0	0	95-100	85-95	70-85	45-60	15-30	NP-10
	11-60	fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	95-100	85-95	70-85	45-60	15-25	NP-5
617: Wesco-----	0-5	loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	15-25	NP-5
	5-11	fine sandy loam, very fine sandy loam, loam	CL-ML, SM, ML, SC-SM	A-4	0	0	95-100	85-100	70-85	45-60	15-30	NP-10
	11-26	fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	95-100	85-100	70-85	45-60	15-25	NP-5
	26-65	stratified very gravelly loamy sand to fine sandy loam	SM	A-1, A-2	0	0	80-90	70-80	45-55	20-30	---	NP

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
638: Burrita-----	0-7	extremely gravelly loam	GM	A-1	0	0-10	15-35	15-25	10-25	10-20	20-25	NP-5
	7-14	very cobbly clay, very stony clay loam, very gravelly clay loam	GC	A-2, A-7	0	10-55	40-65	30-55	25-50	20-45	40-55	20-30
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Soughe-----	0-4	very gravelly loam	GC-GM, GM	A-1, A-2	0	0-10	40-60	30-50	25-35	20-35	20-30	NP-10
	4-14	very gravelly sandy clay loam, very gravelly clay loam, very gravelly loam	GC, SC	A-2	0	0-15	35-65	25-55	15-25	10-20	35-40	15-20
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Panlee-----	0-10	gravelly very fine sandy loam	GM, SM	A-4	0	0-10	65-80	50-75	45-70	35-50	20-30	NP-5
	10-42	very gravelly very fine sandy loam, very cobbly silt loam	GM	A-1, A-4, A-2	0-5	10-40	35-60	30-55	25-50	15-40	20-30	NP-5
	42-45	indurated			---	---	---	---	---	---	---	---
	45-55	unweathered bedrock			---	---	---	---	---	---	---	---
640: Clementine-----	0-3	silt loam	CL-ML, ML	A-4	0	0	100	100	95-100	75-90	25-35	5-10
	3-60	stratified silt loam to silty clay loam	ML	A-6, A-7	0	0	100	100	95-100	80-95	35-45	10-15
641: Clementine-----	0-3	silt loam	CL-ML, ML	A-4	0	0	100	100	95-100	75-90	25-35	5-10
	3-60	stratified silt loam to silty clay loam	ML	A-6, A-7	0	0	100	100	95-100	80-95	35-45	10-15
Paranat-----	0-19	silt loam	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
	19-60	stratified silt loam to silty clay loam	CL, ML	A-4, A-6	0	0	100	100	95-100	90-100	30-40	5-15
642: Clementine-----	0-3	silt loam	CL-ML, ML	A-4	0	0	100	100	95-100	75-90	25-35	5-10
	3-44	stratified silt loam to silty clay loam	ML	A-6, A-7	0	0	100	100	95-100	80-95	35-45	10-15
	44-60	stratified loam to silty clay loam	ML	A-6, A-7	0	0	100	100	95-100	70-80	35-45	10-15
Rose Creek-----	0-10	loam	ML	A-4	0	0-5	95-100	90-100	70-85	50-60	20-25	NP-5
	10-60	stratified gravelly sand to silt loam	SM	A-2, A-4	0	0-5	85-100	70-95	50-70	30-40	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	
Panlee-----	0-10	gravelly very fine sandy loam	GM, SM	A-4	0	0-10	65-80	50-75	45-70	35-50	20-30	NP-5
	10-42	very gravelly very fine sandy loam, very cobbly silt loam	GM	A-2, A-1, A-4	0-5	10-40	35-60	30-55	25-50	15-40	20-30	NP-5
	42-45	indurated			---	---	---	---	---	---	---	---
	45-55	unweathered bedrock			---	---	---	---	---	---	---	---
Burrita-----	0-7	very gravelly loam	GM	A-1, A-2	0	0-10	35-60	30-50	20-45	15-35	20-25	NP-5
	7-14	very cobbly clay, very stony clay loam, very gravelly clay loam	GC	A-2, A-7	0	10-55	40-65	30-55	25-50	20-45	40-55	20-30
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
660: Beoska-----	0-5	gravelly very fine sandy loam	SM	A-4	0	0-10	70-80	55-75	50-70	35-50	15-25	NP-5
	5-26	silt loam, silty clay loam, clay loam	CL	A-6, A-7	0	0	80-100	75-100	70-85	60-85	35-45	15-25
	26-60	stratified gravelly sandy loam to gravelly very fine sandy loam	GM, SM	A-1, A-2	0	0-10	60-80	55-70	30-50	20-35	---	NP
Oxcorel-----	0-5	gravelly very fine sandy loam	GM, SM	A-4	0	0-10	60-85	55-75	45-70	35-50	15-25	NP-5
	5-24	clay, clay loam	CH, CL	A-7	0	0-5	85-95	80-90	75-85	65-80	40-55	20-30
	24-60	very gravelly sandy loam, very gravelly loam	GM	A-1	0	0-15	30-60	25-50	20-40	15-25	15-25	NP-5
Whirlo-----	0-14	gravelly very fine sandy loam	GM, ML	A-4	0	0	60-75	55-75	50-70	40-60	20-25	NP-5
	14-43	very gravelly fine sandy loam, very gravelly loam	GM	A-1, A-2	0	0-5	45-55	35-50	30-40	15-35	---	NP
	43-60	stratified very gravelly coarse sandy loam to very gravelly loam	GP-GM, GW-GM	A-1	0	0-5	40-50	20-35	10-25	5-10	---	NP
661: Oxcorel-----	0-5	gravelly very fine sandy loam	GM, SM	A-4	0	0-10	60-85	55-75	45-70	35-50	15-25	NP-5
	5-24	clay, clay loam	CH, CL	A-7	0	0-5	85-95	80-90	75-85	65-80	40-55	20-30
	24-60	very gravelly sandy loam, very gravelly loam	GM	A-1	0	0-15	30-60	25-50	20-40	15-25	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						
					Pct	Pct					Pct	
Atlow-----	In											
	0-4	very gravelly loam	GC, SC	A-2, A-6	0	0-15	35-85	30-50	20-45	15-40	25-35	10-15
	4-14	very gravelly clay loam, very cobbly clay loam, very gravelly sandy clay loam	GC	A-6, A-2, A-7	0	0-45	35-60	25-50	20-50	15-40	35-45	15-20
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
710:												
Xipe-----	0-4	silt loam	CL	A-6	0	0	95-100	90-100	90-100	85-95	25-40	10-15
	4-24	silty clay loam, silt loam	CL	A-6, A-7	0	0	95-100	90-100	90-100	85-95	25-45	10-20
	24-60	stratified extremely gravelly coarse sand to loamy sand	GM, SM	A-1, A-2	0	0-10	55-80	50-75	30-55	15-30	---	NP
720:												
Dewar-----	0-5	very cobbly silt loam	GC-GM	A-2, A-4	0	30-45	45-75	40-65	35-60	30-50	25-30	5-10
	5-15	gravelly clay loam, gravelly silty clay loam	CL, GC	A-6, A-7	0	0-10	65-90	60-80	55-80	45-75	35-45	15-20
	15-31 31-60	indurated cemented			---	---	---	---	---	---	---	---
Sodhouse-----	0-6	cobbly silt loam	ML	A-4	0	25-30	75-85	70-80	65-80	60-70	20-25	NP-5
	6-19	very fine sandy loam, silt loam, loam	ML	A-4	0	0-5	85-100	80-100	60-90	50-60	20-25	NP-5
	19-42 42-60	indurated gravelly sandy loam	SM	A-2, A-4	0	0-10	65-80	60-75	50-65	25-40	15-25	NP-5
721:												
Dewar-----	0-5	gravelly loam	CL, SC, GC	A-6	0	0-5	60-90	55-80	45-80	35-70	25-35	10-15
	5-15	gravelly silty clay loam, gravelly clay loam	CL, GC	A-6, A-7	0	0-10	65-90	60-80	55-80	45-75	35-45	15-20
	15-60	indurated			---	---	---	---	---	---	---	---
Laped-----	0-7	very gravelly loam	GC-GM	A-2	0	0-5	45-60	35-50	25-40	20-30	20-30	5-10
	7-15	gravelly clay loam	GC, SC	A-6, A-7	0	0-10	60-80	55-75	45-60	35-50	35-45	15-20
	15-21 21-25	indurated unweathered bedrock			---	---	---	---	---	---	---	---
Orovada-----	0-8	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	20-30	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-95	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	NP-5

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct						
740: Gowjai-----	0-11	silt loam	ML	A-4	0	0	85-100	80-100	75-95	65-80	25-30	NP-5
	11-36	very gravelly silt loam, very gravelly silty clay loam	GC, GM	A-2, A-7, A-6	0	0-20	35-65	30-50	25-50	20-45	35-50	15-20
	36-52	very gravelly very fine sandy loam, very gravelly silt loam	GM	A-1, A-4, A-2	0-5	10-20	35-65	30-55	25-50	20-45	15-25	NP-5
	52-62	unweathered bedrock			---	---	---	---	---	---	---	---
Vanwyper-----	0-7	very cobbly loam	SC	A-2, A-6	0-5	30-45	70-80	55-65	40-55	30-40	25-35	10-15
	7-27	very cobbly clay loam, very cobbly clay	CH, CL, GC	A-7	0-10	30-55	55-75	50-65	45-60	40-55	40-60	20-40
	27-31	unweathered bedrock			---	---	---	---	---	---	---	---
Sumine-----	0-6	very cobbly loam	GC-GM	A-2, A-4	0-5	30-55	55-65	50-60	40-55	30-45	20-30	5-10
	6-28	very gravelly clay loam, very cobbly clay loam, very gravelly loam	GC	A-2, A-6, A-7	0	15-40	45-70	35-65	30-50	25-45	35-45	15-25
	28-38	unweathered bedrock			---	---	---	---	---	---	---	---
750: Snapp-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	75-95	45-65	20-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GP-GM, SM, GM, SP-SM	A-1	0	0	25-60	15-50	10-40	5-15	0-14	NP
Oxcotel-----	0-5	gravelly very fine sandy loam	GM, SM	A-4	0	0-10	60-85	55-75	45-70	35-50	15-25	NP-5
	5-24	clay, clay loam	CH, CL	A-7	0	0-5	85-95	80-90	75-85	65-80	40-55	20-30
	24-60	very gravelly sandy loam, very gravelly loam	GM	A-1	0	0-15	30-60	25-50	20-40	15-25	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	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
				Pct	Pct					Pct		
751: Snapp-----	In											
	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	75-95	45-65	20-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GM, SP-SM, GP-GM, SM	A-1	0	0	25-60	15-50	10-40	5-15	0-14	NP
Sodhouse-----	0-6	very fine sandy loam	ML, SM	A-4	0	0	90-100	90-100	75-95	45-65	15-25	NP-5
	6-19	fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	80-100	75-90	65-85	35-55	15-25	NP-5
	19-42	indurated			---	---	---	---	---	---	0-14	---
	42-60	extremely gravelly sandy loam, very gravelly loamy sand	GM, GP-GM	A-1	0	5-20	25-60	15-50	10-40	5-25	0-14	NP
752: Snapp-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	75-95	45-65	20-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GP-GM, GM, SM, SP-SM	A-1	0	0	25-60	15-50	10-40	5-15	0-14	NP
Orovada-----	0-8	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	20-30	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-95	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	NP-5
753: Snapp-----	0-5	gravelly silt loam	GM, ML	A-4	0	0	55-80	50-75	45-70	40-55	25-30	NP-5
	5-21	gravelly clay, gravelly clay loam, clay	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GM, GP-GM, SP-SM, SM	A-1	0	0	25-60	15-50	10-40	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	
Dugchip-----	0-5	very fine sandy loam	ML	A-4	0	0-5	90-100	85-100	80-100	50-60	20-30	NP-5
	5-18	silt loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0-1	0-10	85-100	80-100	75-100	40-60	25-30	NP-5
	18-31	clay loam, loam	CL	A-6	0	0-5	85-100	80-100	75-100	55-70	35-40	15-20
	31-39	indurated			---	---	---	---	---	---	---	---
	39-60	extremely gravelly loamy sand, very gravelly loamy sand	GP-GM, SP-SM	A-1	0-1	5-15	25-60	20-50	10-30	5-10	---	NP
Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-95	60-80	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	NP
754: Snapp-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	75-95	45-65	20-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GM, SP-SM, GP-GM, SM	A-1	0	0	25-60	15-50	10-40	5-15	0-14	NP
Puett-----	0-5	very gravelly loam	GM	A-1, A-2	0	0-10	50-60	40-50	35-45	20-35	15-20	NP-5
	5-10	coarse sandy loam, gravelly loam, sandy loam	ML, GM, SM	A-1, A-4, A-2	0	0	55-95	50-90	30-80	15-55	---	NP
	10-14	weathered bedrock			---	---	---	---	---	---	---	---
755: Snapp-----	0-5	silt loam	ML	A-4	0	0	85-100	80-100	65-90	50-75	20-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GP-GM, SM, GM, SP-SM	A-1	0	0	25-60	15-50	10-40	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 Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct						
Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-95	60-80	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	NP
756: Snapp-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	75-95	45-65	20-25	NP-5
	5-21	clay, gravelly clay, gravelly clay loam	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GM, GP-GM, SP-SM, SM	A-1	0	0	25-60	15-50	10-40	5-15	0-14	NP
Adelaide-----	0-3	silt loam	CL-ML, ML	A-4	0	0-5	85-100	80-100	70-90	55-70	15-25	NP-10
	3-11	loam, silt loam, very fine sandy loam	CL-ML, ML	A-4	0	0-5	85-100	80-100	70-90	55-85	15-25	NP-10
	11-16	cemented			---	---	---	---	---	---	---	---
	16-28	clay loam	CL	A-6, A-7	0	0-5	95-100	90-100	75-90	55-70	35-45	15-20
	28-35	indurated			---	---	---	---	---	---	---	---
	35-60	extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-5	15-30	10-25	5-20	0-10	---	NP
McConnel-----	0-1	fine sandy loam	ML, SM	A-4	0	0	95-100	85-95	65-75	45-55	15-25	NP-5
	1-16	loam, sandy loam, fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	65-80	45-60	15-25	NP-5
	16-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP	A-1	0	0-15	25-35	10-35	5-15	0-5	0-14	NP
760: Piline-----	0-4	silty clay loam	CL	A-7	0	0	100	100	95-100	90-95	45-50	25-30
	4-60	clay, silty clay, clay loam	CH, CL	A-7	0	0	100	100	95-100	80-90	45-55	25-35
Piline-----	0-4	silty clay loam	CL	A-7	0	0	100	100	95-100	90-95	45-50	25-30
	4-60	clay loam, clay, silty clay	CH, CL	A-7	0	0	100	100	90-100	80-90	45-55	25-35
761: Piline-----	0-4	silty clay	CH	A-7	0	0	100	100	95-100	90-95	50-55	30-35
	4-60	clay loam, clay, silty clay	CH, CL	A-7	0	0	100	100	90-100	80-90	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	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
781: Dacker-----	0-7	silt loam	CL-ML, ML	A-4	0	0-5	90-100	85-100	75-100	60-90	25-35	5-10
	7-18	silty clay loam, gravelly silty clay loam	CL	A-6	0	0-5	75-100	70-90	65-90	60-85	35-40	15-20
	18-22	silt loam, gravelly silt loam, gravelly loam	CL, GC	A-6	0	0-5	55-100	50-90	45-90	40-85	30-35	10-15
	22-26	indurated			---	---	---	---	---	---	---	---
Bilbo-----	0-13	gravelly loam	CL, GC-GM, CL-ML, GC	A-4, A-6	0	0-10	65-90	55-75	50-70	40-55	25-35	5-15
	13-40	very gravelly sandy clay, very gravelly clay, very gravelly clay loam	GC	A-2, A-7	0	0-25	45-65	35-50	30-45	20-40	40-55	20-35
	40-60	extremely gravelly loamy sand, very gravelly sandy loam	GM, GP-GM	A-1	0	0-10	30-60	15-50	10-40	5-20	15-25	NP-5
782: Dacker-----	0-7	very fine sandy loam	CL-ML, ML	A-4	0	0-5	90-100	85-100	70-90	50-70	20-30	NP-10
	7-18	silty clay loam, gravelly silty clay loam	CL	A-6	0	0-5	75-100	70-90	65-90	60-85	35-40	15-20
	18-22	silt loam, gravelly silt loam, gravelly loam	CL, GC	A-6	0	0-5	55-100	50-90	45-90	40-85	30-35	10-15
	22-26	indurated			---	---	---	---	---	---	---	---
Devada-----	0-5	cobbly very fine sandy loam	CL-ML, SC-SM	A-4	0	15-30	75-95	70-90	60-80	40-55	20-25	5-10
	5-15	gravelly clay, clay	CH, GC	A-7	0	0-10	65-100	55-100	50-90	35-70	50-65	25-35
	15-25	unweathered bedrock			---	---	---	---	---	---	---	---
Snowmore-----	0-2	very fine sandy loam	CL-ML	A-4	0	0-10	90-100	85-100	70-85	50-65	25-30	5-10
	2-15	loam, clay loam, sandy clay loam	CL	A-6	0	0-10	90-100	85-100	70-90	50-75	30-40	10-15
	15-21	loam, clay loam, gravelly loam	CL, GC	A-6, A-7	0	0-10	70-100	60-100	50-80	40-75	35-45	15-25
	21-24	indurated			---	---	---	---	---	---	---	---
	24-28	unweathered bedrock			---	---	---	---	---	---	---	---
790: Rio King-----	0-12	loam	ML, SM	A-4	0	0	90-100	90-100	60-80	45-65	15-25	NP-5
	12-72	stratified coarse sandy loam to silt loam	ML, SM	A-4	0	0	90-100	90-100	50-75	35-65	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	
791: Rio King-----	0-12	loam	ML, SM	A-4	0	0	90-100	90-100	60-80	45-65	15-25	NP-5
	12-60	stratified coarse sandy loam to silt loam	ML, SM	A-4	0	0	90-100	90-100	50-75	35-65	15-25	NP-5
800: Udelope-----	0-2	very bouldery sandy loam	SM	A-2, A-4	5-20	10-30	85-100	70-85	55-80	25-45	15-25	NP-5
	2-10	sandy loam	SM	A-2, A-4	0-5	0-5	95-100	90-100	60-85	30-50	15-25	NP-5
	10-18	gravelly sandy loam, sandy loam	SM	A-1, A-4, A-2	0-5	0-5	60-100	50-100	35-85	15-50	15-25	NP-5
	18-22	unweathered bedrock			---	---	---	---	---	---	---	---
Bregar-----	0-1	very cobbly loam	GC, GC-GM	A-4, A-2, A-6	0	30-50	50-70	45-65	40-55	25-40	20-35	5-15
	1-9	very gravelly sandy clay loam, extremely cobbly clay loam, very gravelly clay loam	GC	A-2	0	5-45	30-50	25-35	20-30	10-25	35-45	15-25
	9-13	unweathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
801: Udelope-----	0-2	bouldery sandy loam	SM	A-2, A-4	1-5	5-20	90-100	75-100	55-85	25-50	15-25	NP-5
	2-10	sandy loam	SM	A-2, A-4	0-5	0-5	95-100	90-100	60-85	30-50	15-25	NP-5
	10-18	gravelly sandy loam, sandy loam	SM	A-1, A-2, A-4	0-5	0-5	60-100	50-100	35-85	15-50	15-25	NP-5
	18-22	unweathered bedrock			---	---	---	---	---	---	---	---
Hackwood-----	0-32	silt loam	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	70-85	60-75	25-35	5-15
	32-60	gravelly loam, gravelly silt loam	CL-ML, GC-GM, CL, SC-SM	A-4, A-6	0	0	60-80	50-75	40-70	35-65	25-35	5-15
Tusel-----	0-22	gravelly loam	GM, SM	A-4	0	0-10	55-80	50-75	45-70	35-50	25-35	NP-10
	22-46	extremely gravelly sandy clay loam, extremely gravelly clay loam, very gravelly clay loam	GC	A-2	0	15-45	30-50	25-40	20-35	15-30	30-40	10-20
	46-50	unweathered bedrock			---	---	---	---	---	---	---	---
810: Batan-----	0-4	very fine sandy loam	ML, SM	A-4	0	0	100	100	85-100	40-60	15-20	NP-5
	4-60	stratified fine sandy loam to silty clay	CL	A-6	0	0	100	100	95-100	85-95	30-40	15-25
Goldrun-----	0-7	loamy fine sand	SM	A-2	0	0	100	100	75-90	15-35	---	NP
	7-67	fine sand	SM	A-2	0	0	100	100	75-90	10-20	---	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						
				Pct	Pct					Pct		
811: Batan-----	0-4	silt loam	ML	A-4	0	0	100	100	95-100	85-95	30-35	5-10
	4-60	stratified fine sandy loam to silty clay	CL	A-6	0	0	100	100	95-100	85-95	30-40	15-25
Batan-----	0-4	loamy fine sand	SM	A-2, A-4	0	0	100	100	75-90	25-45	0-14	NP
	4-60	stratified silt loam to silty clay	CL	A-6	0	0	100	100	95-100	85-95	30-40	15-25
813: Batan-----	0-4	silt loam	ML	A-4	0	0	100	100	95-100	85-95	30-35	5-10
	4-60	stratified fine sandy loam to silty clay	CL	A-6	0	0	100	100	95-100	85-95	30-40	15-25
815: Batan-----	0-4	silt loam	ML	A-4	0	0	100	100	95-100	85-95	30-35	5-10
	4-60	stratified fine sandy loam to silty clay	CL	A-6	0	0	100	100	95-100	85-95	30-40	15-25
Prideen-----	0-7	silt loam	CL-ML, ML	A-4	0	0	95-100	95-100	95-100	70-80	15-25	NP-10
	7-46	silt loam, silty clay loam	ML	A-6, A-4, A-7	0	0	95-100	95-100	95-100	75-90	30-45	5-15
	46-61	silty clay loam, silty clay	CH, ML, MH	A-7	0	0	95-100	95-100	95-100	80-95	45-60	15-30
Wendane-----	0-20	silt loam	ML	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
	20-35	silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	70-80	30-40	NP-10
	35-60	stratified silt loam to clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-95	35-45	10-20
818: Batan-----	0-4	loamy fine sand	SM	A-2, A-4	0	0	100	100	75-90	25-45	0-14	NP
	4-60	stratified silt loam to silty clay	CL	A-6	0	0	100	100	95-100	85-95	30-40	15-25
Subus-----	0-5	loamy fine sand	SM	A-2, A-4	0	0	90-100	75-100	70-90	30-50	0-14	NP
	5-60	stratified sandy loam to silt loam	ML	A-4	0	0	95-100	90-100	80-90	50-60	25-30	NP-5
Goldrun-----	0-7	fine sand	SM	A-2	0	0	100	100	75-90	15-35	---	NP
	7-67	fine sand	SM	A-2	0	0	100	100	75-90	10-20	---	NP
823: Whirlo-----	0-14	silt loam	ML	A-4	0	0	80-95	75-90	70-85	55-70	20-25	NP-5
	14-43	very gravelly fine sandy loam, very gravelly loam	GM	A-1, A-2	0	0-10	45-55	35-50	30-40	15-35	---	NP
	43-60	stratified extremely gravelly coarse sandy loam to very gravelly loam	GP-GM, GW-GM	A-1	0	0-15	40-50	20-35	10-25	5-10	---	NP

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
Orovada-----	0-8	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	20-30	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-95	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	NP-5
Snapp-----	0-5	gravelly very fine sandy loam	GM, SM	A-2	0	0	55-80	50-75	45-70	25-35	20-25	NP-5
	5-21	gravelly clay, gravelly clay loam, clay	CH, GC	A-7	0	0	55-100	50-90	45-85	35-70	50-75	30-50
	21-25	gravelly clay loam, gravelly loam	CL, GC	A-6, A-7	0	0	55-80	50-75	45-70	35-60	35-45	15-25
	25-60	extremely gravelly loamy sand, very gravelly loamy sand	GM, GP-GM, SP-SM, SM	A-1	0	0	25-60	15-50	10-40	5-15	0-14	NP
825: Whirlo-----	0-14	gravelly very fine sandy loam	GM, ML	A-4	0	0	60-75	55-75	50-70	40-60	20-25	NP-5
	14-43	very gravelly fine sandy loam, very gravelly loam	GM	A-1, A-2	0	0-5	45-55	35-50	30-40	15-35	---	NP
	43-60	stratified very gravelly coarse sandy loam to very gravelly loam	GP-GM, GW-GM	A-1	0	0-5	40-50	20-35	10-25	5-10	---	NP
Oxcorel-----	0-5	gravelly very fine sandy loam	GM, SM	A-4	---	0-10	60-85	55-75	45-70	35-50	15-25	NP-5
	5-24	clay, clay loam	CH, CL	A-7	---	0-5	85-95	80-90	75-85	65-80	40-55	20-30
	24-60	very gravelly sandy loam, very gravelly loam	GM	A-1	---	0-15	30-60	25-50	20-40	15-25	15-25	NP-5
Weso-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	80-90	40-55	15-25	NP-5
	5-11	fine sandy loam, very fine sandy loam, loam	ML, CL-ML, SC-SM, SM	A-4	0	0	95-100	85-100	70-85	45-60	15-30	NP-10
	11-26	fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	95-100	85-100	70-85	45-60	15-25	NP-5
	26-65	stratified very gravelly loamy sand to fine sandy loam	SM	A-1, A-2	0	0	80-90	70-80	45-55	20-30	---	NP
831: Boton-----	0-15	silt loam	ML	A-4	0	0	100	100	95-100	75-95	25-35	NP-5
	15-21	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	30-40	5-15
	21-60	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	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	
Playas-----	0-6	silty clay loam	CL, ML	A-7	0	0	100	100	100	90-100	45-50	20-25
	6-60	silty clay loam, clay, silty clay	CH, CL, MH	A-7	0	0	100	100	100	90-100	45-75	20-40
833:												
Boton-----	0-15	very fine sandy loam	ML	A-4	0	0	100	100	90-100	50-70	20-25	NP-5
	15-21	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	30-40	5-15
	21-60	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	30-40	5-15
Isolde-----	0-3	fine sand	SP, SP-SM	A-3	0	0	100	100	75-90	0-10	---	NP
	3-60	fine sand, sand	SP, SP-SM	A-3	0	0	100	100	50-80	0-10	---	NP
Boton-----	0-15	loamy fine sand	SM	A-4	0	0	100	100	80-100	35-45	0-14	NP
	15-21	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	30-40	5-15
	21-60	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	30-40	5-15
834:												
Boton-----	0-15	loamy fine sand	SM	A-2	0	0	100	100	80-90	20-35	0-14	NP
	15-21	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	30-40	5-15
	21-60	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	30-40	5-15
Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
840:												
Dugchip-----	0-5	very fine sandy loam	ML	A-4	0	0-5	90-100	85-100	80-100	50-60	20-30	NP-5
	5-18	silt loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0-1	0-10	85-100	80-100	75-100	40-60	25-30	NP-5
	18-31	clay loam, loam	CL	A-6	0	0-5	85-100	80-100	75-100	55-70	35-40	15-20
	31-39	indurated	---	---	---	---	---	---	---	---	---	---
	39-60	extremely gravelly loamy sand, very gravelly sand, very gravelly loamy sand	GP-GM, SP-SM	A-1	0-1	5-15	25-60	20-50	10-30	5-10	---	NP
Flue-----												
Flue-----	0-6	very fine sandy loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	13-35	clay, clay loam, gravelly clay loam	CL, CH, GC	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated	---	---	---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	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	
Dewar-----	0-5	gravelly very fine sandy loam	GM, SM	A-2, A-4	0	0-5	55-80	50-75	45-65	30-45	25-30	NP-5
	5-15	gravelly clay loam, gravelly silty clay loam	CL, GC	A-6, A-7	0-5	0-10	65-90	60-80	55-80	45-75	35-45	15-20
	15-31	indurated			---	---	---	---	---	---	---	---
	31-60	cemented			---	---	---	---	---	---	---	---
842: Dugchip-----	0-5	very fine sandy loam	ML	A-4	0	0-5	90-100	85-100	80-100	50-60	20-30	NP-5
	5-18	silt loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0-1	0-10	85-100	80-100	75-100	40-60	25-30	NP-5
	18-31	clay loam, loam	CL	A-6	0	0-5	85-100	80-100	75-100	55-70	35-40	15-20
	31-39	indurated			---	---	---	---	---	---	---	---
	39-60	extremely gravelly loamy sand, very gravelly sand, very gravelly loamy sand	GP-GM, SP-SM	A-1	0-1	5-15	25-60	20-50	10-30	5-10	---	NP
Kelk-----	0-13	silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	95-100	75-90	25-35	5-15
	13-60	silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	95-100	85-95	25-35	5-15
844: Dugchip-----	0-5	very fine sandy loam	ML	A-4	0	0-5	90-100	85-100	80-100	50-60	20-30	NP-5
	5-18	silt loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0-1	0-10	85-100	80-100	75-100	40-60	25-30	NP-5
	18-31	clay loam, loam	CL	A-6	0	0-5	85-100	80-100	75-100	55-70	35-40	15-20
	31-39	indurated			---	---	---	---	---	---	---	---
	39-60	extremely gravelly loamy sand, very gravelly sand, very gravelly loamy sand	GP-GM, SP-SM	A-1	0-1	5-15	25-60	20-50	10-30	5-10	---	NP
Chiara-----	0-3	gravelly fine sandy loam	GM, SM	A-2, A-4	0	0-5	60-80	55-75	45-65	25-50	20-25	NP-5
	3-14	very fine sandy loam, silt loam, loam	ML	A-4	0	0	95-100	95-100	95-100	75-85	15-25	NP-5
	14-60	indurated			---	---	---	---	---	---	---	---
845: Dugchip-----	0-5	very fine sandy loam	ML	A-4	0	0-5	90-100	85-100	80-100	50-60	25-30	NP-5
	5-18	silt loam, fine sandy loam, very fine sandy loam	ML, SM	A-4	0-1	0-10	85-100	80-100	75-100	40-60	25-30	NP-5
	18-31	clay loam, loam	CL	A-6	0	0-5	85-100	80-100	75-100	55-70	35-40	15-20
	31-39	indurated			---	---	---	---	---	---	---	---
	39-60	extremely gravelly loamy sand, very gravelly sand, very gravelly loamy sand	GP-GM, SP-SM	A-1	0-1	10-15	25-60	20-55	10-30	5-10	---	NP

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
Devada-----	0-5	cobbly loam	CL, SC	A-6	0	15-30	75-95	70-90	65-80	45-60	25-35	10-15
	5-15	gravelly clay, clay	CH, GC	A-7	0	0-10	65-100	55-100	50-90	35-70	50-65	25-35
	15-25	unweathered bedrock			---	---	---	---	---	---	---	---
Goosel-----	0-13	cobbly loam	ML	A-4	0	15-30	75-95	70-90	60-75	50-65	30-40	NP-5
	13-21	clay, silty clay, clay loam	CH, CL	A-7	0	0-5	85-95	80-90	75-90	70-85	45-65	20-35
	21-25	very gravelly sandy clay loam, gravelly sandy loam	GM, SM	A-2, A-1, A-4	0	5-20	50-85	45-75	35-65	20-50	20-35	NP-5
	25-26	indurated			---	---	---	---	---	---	---	---
	26-30	unweathered bedrock			---	---	---	---	---	---	---	---
863: Goosel-----	0-13	gravelly loam	GM, SM	A-4	0	0-5	55-80	50-75	45-65	35-50	30-40	NP-5
	13-21	silty clay, clay, silty clay loam	CH, CL	A-7	0	0-5	85-95	80-90	75-90	70-85	45-65	20-35
	21-25	very gravelly sandy clay loam, gravelly sandy loam	GM, SM	A-1, A-2, A-4	0	5-20	50-85	45-75	35-65	20-50	20-35	NP-5
	25-26	indurated			---	---	---	---	---	---	---	---
	26-30	unweathered bedrock			---	---	---	---	---	---	---	---
Midraw-----	0-4	cobbly loam	ML, SM	A-4	0-1	10-25	75-95	70-90	60-75	45-60	30-40	5-10
	4-14	gravelly clay, gravelly clay loam	CL, GC	A-7	0	0-10	65-75	55-70	50-65	45-60	40-50	15-25
	14-28	indurated			---	---	---	---	---	---	---	---
	28-32	unweathered bedrock			---	---	---	---	---	---	---	---
880: Cleavage-----	0-7	very cobbly loam	GC, GC-GM	A-4, A-2, A-6	0-5	30-45	55-75	45-65	40-60	25-50	25-35	5-15
	7-16	very cobbly clay loam, extremely cobbly sandy clay loam, very gravelly clay loam	GC	A-2	5-15	10-40	40-55	30-45	25-45	20-35	30-45	10-20
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
Sumine-----	0-6	cobbly loam	CL-ML	A-4	0	20-30	80-90	75-85	65-75	50-65	20-30	5-10
	6-28	very gravelly clay loam, very cobbly clay loam, very gravelly loam	GC	A-2, A-6, A-7	0	15-40	45-70	35-65	30-50	25-45	35-45	15-25
	28-38	unweathered bedrock			---	---	---	---	---	---	---	---
Harcany-----	0-4	very gravelly loam	GM	A-2, A-1, A-4	0	0-10	35-55	30-50	25-45	20-40	20-25	NP-5
	4-18	very gravelly silt loam	GM	A-2, A-4	0	15-25	45-55	40-50	35-45	30-40	15-20	NP-5
	18-72	extremely gravelly sandy loam	GP-GM, GW-GM	A-1	0-5	10-25	20-30	15-25	10-20	5-10	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	
907: Roca-----	0-6	very gravelly loam	GC	A-2	0	0-10	35-60	30-50	25-40	20-35	25-35	10-15
	6-37	very gravelly clay loam, very gravelly clay	GC, SC	A-2	0	0-15	60-75	40-50	30-45	25-35	45-60	25-35
	37-41	unweathered bedrock			---	---	---	---	---	---	---	---
Climine-----	0-8	very gravelly loam	GM	A-1, A-4, A-2	0	0-10	35-55	30-50	25-45	20-40	20-25	NP-5
	8-25	gravelly loam, gravelly silt loam, very fine sandy loam	GM, ML, SM	A-4	0	0-10	65-100	60-95	50-90	35-65	25-30	NP-5
	25-60	very gravelly loam, extremely gravelly clay loam, very gravelly silt loam	GC	A-2	0	0-20	30-60	25-50	20-45	15-35	25-40	10-20
Rock Outcrop---	---	---	---	---	---	---	---	---	---	---	---	---
909: Roca-----	0-6	very stony loam	CL	A-6	5-25	25-55	85-100	75-85	70-80	50-60	25-35	10-15
	6-37	very gravelly clay loam, very gravelly clay	GC, SC	A-2	0	0-10	60-75	30-50	25-45	20-35	45-60	20-30
	37-41	unweathered bedrock			---	---	---	---	---	---	---	---
Nomara-----	0-4	stony silt loam	ML	A-4	1-5	0-20	75-95	70-90	65-85	55-70	20-30	NP-5
	4-19	silt loam, gravelly silt loam	ML	A-4	0-5	0-10	85-95	75-90	70-85	60-70	20-30	NP-5
	19-40	very gravelly silt loam, very gravelly loam, extremely gravelly clay loam	GC	A-2, A-6	0-10	5-30	20-55	15-50	10-45	10-40	30-40	10-15
	40-44	unweathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop---	---	---	---	---	---	---	---	---	---	---	---	---
911: Barnard-----	0-7	loam	CL-ML	A-4	0	0	90-100	85-100	55-85	50-70	20-30	5-10
	7-27	cobbly clay loam, clay, silty clay	CH, CL	A-7	0	5-25	80-100	75-95	60-90	50-80	45-60	25-40
	27-40	indurated			---	---	---	---	---	---	---	---
	40-60	very gravelly sandy loam	GM	A-1	0	0-15	40-60	35-50	30-45	15-25	20-25	NP-5
Barnard-----	0-7	cobbly loam	ML	A-4	0	15-25	80-90	75-85	60-85	50-75	20-35	NP-10
	7-27	cobbly clay loam, clay, silty clay	CH, CL	A-7	0	5-25	80-100	75-95	60-90	50-80	45-60	25-40
	27-40	indurated			---	---	---	---	---	---	---	---
	40-60	very gravelly sandy loam	GM	A-1	0	0-15	40-60	35-50	30-45	15-25	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 Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
Rock Outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
955: Puffer-----	0-2	very cobbly loam	GC-GM	A-2, A-4	0-5	25-40	45-70	40-65	35-55	20-45	20-25	5-10
	2-9	very gravelly fine sandy loam, extremely gravelly sandy loam, very gravelly loam	GC-GM, GP-GC	A-2	0	15-40	25-60	20-50	15-40	5-30	20-25	5-10
	9-13	unweathered bedrock			---	---	---	---	---	---	---	---
Soughe-----	0-4	very stony loam	GC-GM, GM	A-4	5-15	15-35	55-70	50-60	45-55	35-45	20-30	NP-10
	4-14	very gravelly clay loam, very gravelly sandy clay loam, very gravelly loam	GC, SC	A-2	0	0-15	35-65	25-55	15-25	10-20	35-40	15-20
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
960: Zevadex-----	0-9	very fine sandy loam	ML, CL-ML, SC-SM, SM	A-4	0	0	85-100	75-100	65-95	40-65	20-30	NP-10
	9-20	loam, clay loam, sandy clay loam	CL, SC	A-2, A-6	0	0	85-100	75-100	60-90	30-70	30-40	10-15
	20-60	very fine sandy loam	CL-ML, SM, ML, SC-SM	A-4	0	0	85-100	75-100	65-95	40-65	20-30	NP-10
Wieland-----	0-8	loam	CL-ML, ML	A-4	0	0	90-100	75-100	70-90	50-75	20-30	NP-10
	8-17	gravelly clay, clay	CH, SC	A-7	0	0-5	75-95	55-90	50-80	45-75	50-60	25-35
	17-33	gravelly sandy clay loam, gravelly clay loam	GC, SC	A-2, A-6	0	0-5	60-85	50-70	40-70	25-50	35-40	15-20
	33-60	loam, gravelly loam, gravelly sandy loam	CL-ML, SC-SM	A-2, A-4	0	0-5	65-95	55-90	40-85	25-70	20-30	5-10
Kelk-----	0-13	very fine sandy loam	CL-ML	A-4	0	0	100	100	95-100	65-75	25-30	5-10
	13-60	silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	95-100	85-95	25-35	5-15
962: Zevadex-----	0-9	loam	CL, CL-ML	A-4, A-6	0	0	85-100	75-100	65-95	50-65	20-35	5-15
	9-20	sandy clay loam, clay loam, loam	CL, SC	A-6	0	0	85-100	75-100	60-90	35-65	30-40	10-20
	20-55	fine sandy loam, very fine sandy loam	SC-SM, SM	A-4	0	0	85-100	75-100	65-90	40-50	15-25	NP-10
	55-60	loamy sand, loamy fine sand, fine sandy loam	SM	A-4	0	0	85-100	75-100	60-80	35-45	---	NP

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
					Pct	Pct					Pct	
983: Snowmore-----	In											
	0-2	very fine sandy loam	CL-ML	A-4	0	0-10	90-100	85-100	70-85	50-65	25-30	5-10
	2-15	loam, clay loam, sandy clay loam	CL	A-6	0	0-10	90-100	85-100	70-90	50-75	30-40	10-15
	15-21	loam, clay loam, gravelly loam	CL, GC	A-6, A-7	0	0-10	70-100	60-100	50-80	40-75	35-45	15-25
	21-24	indurated			---	---	---	---	---	---	---	---
	24-28	unweathered bedrock			---	---	---	---	---	---	---	---
Devada-----	0-5	very cobbly very fine sandy loam	GC-GM	A-2, A-4	0-5	30-45	45-70	40-65	35-60	25-40	20-25	5-10
	5-15	gravelly clay, clay	CH, GC	A-7	0	0-10	65-100	55-100	50-90	35-70	50-65	25-35
	15-25	unweathered bedrock			---	---	---	---	---	---	---	---
984: Snowmore-----	0-2	very fine sandy loam	CL-ML	A-4	0	0-10	90-100	85-100	70-85	50-65	25-30	5-10
	2-15	loam, clay loam, sandy clay loam	CL	A-6	0	0-10	90-100	85-100	70-90	50-75	30-40	10-15
	15-21	loam, clay loam, gravelly loam	CL, GC	A-6, A-7	0	0-10	70-100	60-100	50-80	40-75	35-45	15-25
	21-24	indurated			---	---	---	---	---	---	---	---
	24-28	unweathered bedrock			---	---	---	---	---	---	---	---
Vanwyper-----	0-7	very cobbly loam	SC	A-2, A-6	0-5	30-45	70-80	55-65	40-55	30-40	25-35	10-15
	7-27	very cobbly clay loam, very cobbly clay	CH, CL, GC	A-7	0-10	30-55	55-75	50-65	45-60	40-55	40-60	20-40
	27-31	unweathered bedrock			---	---	---	---	---	---	---	---
Devada-----	0-5	cobbly very fine sandy loam	CL-ML, SC-SM	A-4	0	15-30	75-95	70-90	60-80	40-55	20-25	5-10
	5-15	gravelly clay, clay	CH, GC	A-7	0	0-10	65-100	55-100	50-90	35-70	50-65	25-35
	15-25	unweathered bedrock			---	---	---	---	---	---	---	---
990: Playas-----	0-6	silty clay loam	CL, ML	A-7	0	0	100	100	100	90-100	45-50	20-25
	6-60	silty clay loam, clay, silty clay	CH, CL, MH	A-7	0	0	100	100	100	90-100	45-75	20-40
994: Dune Land-----	0-6	fine sand	SM, SP-SM, SP	A-2, A-3	0	0	100	100	60-80	0-25	0-14	NP
	6-60	sand, fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	50-80	0-25	0-14	NP
995: Dune Land-----	0-6	fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	60-80	0-25	0-14	NP
	6-60	sand, fine sand	SM, SP-SM, SP	A-2, A-3	0	0	100	100	50-80	0-25	0-14	NP
Goldrun-----	0-7	fine sand	SM	A-2	0	0	100	100	75-90	15-35	---	NP
	7-67	fine sand	SM	A-2	0	0	100	100	75-90	10-20	---	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	
Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-90	20-35	---	NP
	5-20	fine sandy loam, loam, sandy loam	ML, SM	A-4	0	0	90-100	85-100	80-95	35-60	20-25	NP-5
	20-50	stratified coarse sand to fine sandy loam	SM	A-2	0	0	85-100	85-100	70-90	20-30	---	NP
	50-60	cemented			---	---	---	---	---	---	---	---
998: Dumps-----	0-60	fragmental material	GP	A-1	---	50-90	10-30	5-15	0-5	0	0-14	NP
Pits-----	0-60	unweathered bedrock			---	---	---	---	---	---	0-14	---
999: Slickens-----	0-10	silt loam	ML	A-4	0	0	100	100	100	80-100	0-14	NP
	10-60	variable			0	0	---	---	---	---	0-14	NP
1004: Soughe-----	0-4	very gravelly loam	GC-GM, GM	A-1, A-2	0	0-10	40-60	30-50	25-35	20-35	20-30	NP-10
	4-14	very gravelly sandy clay loam, very gravelly clay loam, very gravelly loam	GC, SC	A-2	0	0-15	35-65	25-55	15-25	10-20	35-40	15-20
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-90	20-35	---	NP
	5-20	fine sandy loam, loam, sandy loam	ML, SM	A-4	0	0	90-100	85-100	80-95	35-60	20-25	NP-5
	20-50	stratified coarse sand to fine sandy loam	SM	A-2	0	0	85-100	85-100	70-90	20-30	---	NP
	50-60	cemented			---	---	---	---	---	---	---	---
1005: Flue-----	0-6	silt loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	13-35	clay, clay loam, gravelly clay loam	CL, CH, GC	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated			---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	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	
1020: Wholan-----	0-6	very fine sandy loam	ML	A-4	0	0	100	100	95-100	75-80	15-25	NP-5
	6-60	very fine sandy loam, silt loam	ML	A-4	0	0	100	100	95-100	75-90	20-30	NP-5
1023: Wholan-----	0-6	silt loam	ML	A-4	0	0	100	100	95-100	80-90	20-30	NP-5
	6-60	very fine sandy loam, silt loam	ML	A-4	0	0	100	100	95-100	75-90	20-30	NP-5
Bliss-----	0-4	fine sandy loam	SM	A-4	0	0	90-100	85-100	75-95	35-50	15-20	NP-5
	4-22	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	65-90	40-70	15-20	NP-5
	22-28	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	60-90	35-65	---	NP
	28-56	cemented			---	---	---	---	---	---	---	---
	56-62	variable			---	---	---	---	---	---	---	---
Enko-----	0-6	fine sandy loam	SC-SM	A-4	0	0	95-100	85-100	60-75	35-50	20-30	5-10
	6-12	loam, sandy loam, fine sandy loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	60-90	35-70	20-30	5-10
	12-28	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-4	0	0	95-100	85-100	75-90	40-65	20-25	5-10
	28-37	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-2, A-4	0	0	85-100	75-100	60-90	30-65	20-25	5-10
	37-60	sandy loam, fine sandy loam, loam	CL-ML, SC-SM	A-2, A-4	0	0	85-100	75-100	60-90	30-65	20-25	5-10
1025: Wholan-----	0-6	silt loam	ML	A-4	0	0	100	100	95-100	80-90	20-30	NP-5
	6-60	very fine sandy loam, silt loam	ML	A-4	0	0	100	100	95-100	75-90	20-30	NP-5
1030: Bullump-----	0-23	very gravelly loam	GC, SC	A-2	0	0-10	45-70	35-50	30-45	25-35	25-35	10-15
	23-52	very gravelly clay loam, very gravelly loam, very gravelly sandy clay loam	GC	A-6, A-2, A-7	0	0-15	40-65	30-50	25-45	15-40	35-45	15-20
	52-56	unweathered bedrock			---	---	---	---	---	---	---	---
Westbutte-----	0-10	stony loam	CL-ML, ML, SM, SC-SM	A-4	1-5	15-30	75-95	70-90	60-80	40-65	25-35	5-10
	10-33	very cobbly loam	GM, SC-SM, GC-GM, SM	A-2, A-4	0-5	30-65	50-75	45-70	40-60	30-50	25-35	5-10
	33-37	unweathered bedrock			---	---	---	---	---	---	---	---
Harcany-----	0-4	gravelly loam	GM, ML	A-4	0	0-5	55-80	50-75	45-65	35-60	20-25	NP-5
	4-18	very gravelly silt loam	GM	A-2, A-4	0	15-25	45-55	40-50	35-45	30-40	15-20	NP-5
	18-72	extremely gravelly sandy loam	GP-GM, GW-GM	A-1	0-5	10-25	20-30	15-25	10-20	5-10	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	
1031: Bullump-----	0-23	gravelly loam	GC, SC	A-6	0	0-10	60-85	50-75	45-65	35-50	25-35	10-15
	23-52	very gravelly clay loam, very gravelly loam, very gravelly sandy clay loam	GC	A-2, A-6, A-7	0	0-15	40-65	30-50	25-45	15-40	35-45	15-20
	52-56	unweathered bedrock			---	---	---	---	---	---	---	---
Sumine-----	0-6	cobbly loam	CL-ML	A-4	0	20-30	80-90	75-85	65-75	50-65	20-30	5-10
	6-28	very gravelly clay loam, very cobbly clay loam, very gravelly loam	GC	A-2, A-7, A-6	0	15-40	45-70	35-65	30-50	25-45	35-45	15-25
	28-38	unweathered bedrock			---	---	---	---	---	---	---	---
Cleavage-----	0-7	extremely gravelly loam	GC-GM	A-2	0	0-10	25-35	15-25	10-25	10-20	25-30	5-10
	7-16	very cobbly clay loam, extremely gravelly clay loam, very gravelly loam	GC	A-2	0-5	0-45	40-55	30-45	25-45	20-35	30-40	10-15
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
1050: Argenta-----	0-4	fine sandy loam	ML, SM	A-4	0	0	100	100	70-85	40-55	0-14	NP
	4-60	stratified fine sandy loam to silt loam	ML	A-4	0	0	100	90-100	80-95	50-65	0-14	NP
1051: Argenta-----	0-4	fine sandy loam	ML, SM	A-4	0	0	100	100	70-85	40-55	0-14	NP
	4-60	stratified fine sandy loam to silt loam	ML	A-4	0	0	100	90-100	80-95	50-65	0-14	NP
Preble-----	0-10	silt loam	ML	A-4	0	0	100	95-100	85-95	65-75	20-25	NP-5
	10-55	fine sandy loam, very fine sandy loam	ML	A-4	0	0	100	95-100	75-85	50-60	15-25	NP-5
	55-65	gravelly sand	SM, SP-SM	A-1	0	0	90-100	60-75	30-40	5-15	0-14	NP
1052: Argenta-----	0-4	very fine sandy loam	ML	A-4	0	0	100	100	95-100	70-80	15-25	NP-5
	4-60	stratified fine sandy loam to silt loam	ML	A-4	0	0	100	90-100	80-95	50-65	0-14	NP
Preble-----	0-10	very fine sandy loam	ML	A-4	0	0	100	95-100	85-95	65-75	20-25	NP-5
	10-55	fine sandy loam, very fine sandy loam	ML	A-4	0	0	100	95-100	75-85	50-60	15-25	NP-5
	55-65	gravelly sand	SM, SP-SM	A-1	0	0	90-100	60-75	30-40	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 Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct						
1055: Argenta-----	0-4	silt loam	ML	A-4	0	0	100	100	90-100	65-80	15-25	NP-5
	4-60	stratified fine sandy loam to silt loam	ML	A-4	0	0	100	90-100	80-95	50-65	0-14	NP
1060: Paranat-----	0-19	silty clay loam	ML	A-6, A-7	0	0	100	100	95-100	90-100	35-45	10-15
	19-60	stratified silt loam to silty clay loam	CL, ML	A-4, A-6	0	0	100	100	90-100	85-95	30-40	5-15
1061: Paranat-----	0-19	silt loam	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
	19-60	stratified silt loam to silty clay loam	CL, ML	A-4, A-6	0	0	100	100	95-100	90-100	30-40	5-15
1064: Paranat-----	0-19	silt loam	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
	19-60	stratified silt loam to silty clay loam	CL, ML	A-4, A-6	0	0	100	100	95-100	90-100	30-40	5-15
Paranat-----	0-19	silt loam	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
	19-60	silt loam, silty clay loam	ML	A-4, A-6	0	0	100	100	95-100	90-100	30-40	5-15
1066: Paranat-----	0-19	very fine sandy loam	ML	A-4	0	0	100	100	85-95	50-65	20-30	NP-5
	19-60	stratified silt loam to silty clay loam	CL, ML	A-4, A-6	0	0	100	100	95-100	90-100	30-40	5-15
1067: Paranat-----	0-19	silt loam	ML	A-4	0	0	100	100	95-100	85-100	25-35	NP-10
	19-60	silt loam, silty clay loam	ML	A-4, A-6	0	0	100	100	95-100	90-100	30-40	5-15
1072: Hoot-----	0-6	very stony loam	GC-GM	A-4	5-25	10-25	50-70	45-65	40-55	35-50	25-30	5-10
	6-15	extremely gravelly loam, extremely gravelly clay loam, very gravelly clay loam	GC	A-2	0	5-25	30-45	20-35	20-30	20-30	35-40	15-20
	15-19	unweathered bedrock			---	---	---	---	---	---	---	---
Laped-----	0-7	stony very fine sandy loam	ML, SM	A-4	1-5	5-25	80-95	75-90	65-80	45-55	20-25	NP-5
	7-15	gravelly clay loam	GC, SC	A-6	0	0-10	55-80	50-75	40-60	35-50	35-40	15-20
	15-21	indurated			---	---	---	---	---	---	---	---
	21-25	unweathered bedrock			---	---	---	---	---	---	---	---
Rubble Land----	0-60	fragmental material	GP	A-1	30-65	30-65	0-10	0-5	0-5	0	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	
Genaw-----	0-5	silt loam	CL-ML	A-4	0	0-5	85-100	75-100	65-90	55-80	20-30	5-10
	5-10	gravelly loam, gravelly clay loam	GC, SC	A-6	0	0-5	60-80	55-75	45-65	35-50	25-35	10-15
	10-18	very gravelly loam	GC-GM	A-2	0	0-15	45-55	35-50	25-45	20-35	25-30	5-10
	18-22	unweathered bedrock			---	---	---	---	---	---	---	---
1090: Soolake-----	0-10	fine sandy loam	SM	A-4	0	0	100	100	75-90	40-50	15-25	NP-5
	10-20	fine sandy loam, very fine sandy loam	SM	A-4	0	0	100	100	75-90	40-50	15-25	NP-5
	20-60	stratified sand to loamy fine sand	SM	A-2	0	0	100	85-100	65-75	20-30	0-14	NP
Argenta-----	0-4	fine sandy loam	ML, SM	A-4	0	0	100	100	70-85	40-55	0-14	NP
	4-60	stratified fine sandy loam to silt loam	ML	A-4	0	0	100	90-100	80-95	50-65	0-14	NP
1100: Wendane-----	0-20	silt loam	ML	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
	20-35	silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	70-80	30-40	NP-10
	35-60	stratified silt loam to clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-95	35-45	10-20
1101: Wendane-----	0-20	silt loam	ML	A-4	0	0	100	100	90-100	70-85	30-40	NP-10
	20-35	silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	70-80	30-40	NP-10
	35-60	stratified silt loam to clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-95	35-45	10-20
1102: Wendane-----	0-20	silt loam	ML	A-4	0	0	100	100	90-100	70-85	30-40	NP-10
	20-35	silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	70-80	30-40	NP-10
	35-60	stratified silt loam to clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-95	35-45	10-20
Wendane-----	0-20	silt loam	ML	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
	20-35	silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	70-80	30-40	NP-10
	35-60	stratified silt loam to clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-95	35-45	10-20
1104: Wendane-----	0-20	silt loam	ML	A-4	0	0	100	100	90-100	70-95	30-40	NP-10
	20-35	silt loam, very fine sandy loam	ML	A-4	0	0	100	100	95-100	70-80	30-40	NP-10
	35-60	stratified silt loam to clay loam	CL, ML	A-6, A-7	0	0	100	100	95-100	85-95	35-45	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	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
1160: Hawsley-----	0-3	fine sand	SM	A-2	0	0	100	100	75-95	15-30	---	NP
	3-60	stratified coarse sand to fine sand	SM, SP-SM	A-2, A-3	0	0	85-100	75-100	55-70	5-25	---	NP
1161: Hawsley-----	0-3	fine sand	SM	A-2	0	0	100	100	75-95	15-30	---	NP
	3-60	stratified coarse sand to fine sand	SM, SP-SM	A-2, A-3	0	0	85-100	75-100	55-70	5-25	---	NP
Isolde-----	0-3	fine sand	SP, SP-SM	A-3	0	0	100	100	75-90	0-10	---	NP
	3-60	fine sand, sand	SP, SP-SM	A-3	0	0	100	100	50-80	0-10	---	NP
1162: Hawsley-----	0-3	fine sand	SM	A-2	0	0	100	100	75-95	15-30	---	NP
	3-60	stratified coarse sand to fine sand	SM, SP-SM	A-2, A-3	0	0	85-100	75-100	55-70	5-25	---	NP
Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
Mazuma-----	0-6	very fine sandy loam	ML	A-4	0	0	95-100	85-100	70-90	50-65	20-25	NP-5
	6-60	stratified gravelly coarse sand to silt loam	SM	A-4	0	0	95-100	75-100	70-90	35-50	20-25	NP-5
1167: Hawsley-----	0-3	fine sand	SM	A-2	0	0	100	100	75-95	15-30	---	NP
	3-60	stratified coarse sand to fine sand	SM, SP-SM	A-2, A-3	0	0	85-100	75-100	55-70	5-25	---	NP
1168: Hawsley-----	0-3	fine sand	SM	A-2	0	0	100	100	75-95	15-30	---	NP
	3-60	stratified coarse sand to fine sand	SM, SP-SM	A-2, A-3	0	0	85-100	75-100	55-70	5-25	---	NP
Davey-----	0-5	loamy fine sand	SM	A-2	0	0	100	100	80-95	25-35	---	NP
	5-14	fine sandy loam, sandy loam	SM	A-2, A-4	0	0	100	100	80-90	30-40	20-25	NP-5
	14-67	fine sand, loamy fine sand	SM	A-2	0	0	85-100	85-100	70-80	10-20	---	NP
Essal-----	0-2	loamy fine sand	SM	A-2	0	0	100	100	80-100	15-30	---	NP
	2-34	stratified very fine sand to silt loam	ML	A-4	0	0	100	95-100	70-80	55-75	15-25	NP-5
	34-60	stratified fine sand to loamy fine sand	SM	A-2	0	0	100	95-100	65-80	20-35	---	NP
1169: Hawsley-----	0-3	fine sand	SM	A-2	0	0	100	100	75-95	15-30	---	NP
	3-69	stratified coarse sand to fine sand	SM, SP-SM	A-2, A-3	0	0	85-100	75-100	55-70	5-25	---	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	
Soughe-----	0-4	gravelly loam	GM, ML	A-4	0	0-5	55-80	50-75	45-70	35-55	20-25	NP-5
	4-14	very gravelly clay loam, very gravelly sandy clay loam, very gravelly loam	GC, SC	A-2	0	0-15	35-65	25-55	15-25	10-20	35-40	15-20
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Panlee-----	0-10	very fine sandy loam	ML	A-4	0	0	90-100	85-100	75-95	50-75	20-30	NP-5
	10-42	very gravelly very fine sandy loam, very cobbly silt loam	GM	A-2, A-1, A-4	0-5	10-40	35-60	30-55	25-50	15-40	20-30	NP-5
	42-45	indurated			---	---	---	---	---	---	---	---
	45-55	unweathered bedrock			---	---	---	---	---	---	---	---
1170:												
Hunnton-----	0-6	cobbly loam	ML	A-4	0-1	15-30	80-95	75-90	65-85	55-75	20-25	NP-5
	6-12	loam, clay loam, silty clay loam	CL	A-6	0	0-5	95-100	90-100	75-95	60-90	30-35	10-15
	12-22	gravelly clay, clay	CH	A-7	0	0-5	75-100	60-95	60-95	55-85	50-60	25-35
	22-36 36-60	indurated variable			---	---	---	---	---	---	---	---
Bliss-----	0-4	cobbly loam	ML	A-4	0	20-30	80-90	75-85	65-75	50-65	20-30	NP-5
	4-22	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	65-90	40-70	15-20	NP-5
	22-28	very fine sandy loam, silt loam	ML, SM	A-4	0	0	80-100	75-100	60-90	35-65	---	NP
	28-60	cemented			---	---	---	---	---	---	---	---
Trunk-----	0-6	cobbly loam	CL-ML, ML	A-4	0	15-30	75-95	70-90	60-90	50-70	20-30	NP-10
	6-36	gravelly clay, gravelly clay loam	CH, CL, GC	A-7	0	0-10	55-85	50-80	45-75	40-65	40-55	20-30
	36-40	unweathered bedrock			---	---	---	---	---	---	---	---
1171:												
Hunnton-----	0-6	very fine sandy loam	ML, SM	A-4	0	0-5	90-100	85-100	75-95	45-65	20-25	NP-5
	6-12	clay loam, loam, silty clay loam	CL	A-6	0	0-5	90-100	85-100	75-95	60-85	30-40	10-20
	12-22	clay, gravelly clay	CH	A-7	0	0-5	75-100	60-95	60-95	55-85	50-60	25-35
	22-36	indurated			---	---	---	---	---	---	---	---
	36-60	very gravelly sandy loam, extremely gravelly loamy sand, very gravelly loamy sand	GM, GP-GM	A-1	0-5	10-20	25-50	20-40	15-30	5-25	---	NP

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit index	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
Dugchip-----	0-5	very fine sandy loam	ML	A-4	0	0-5	90-100	85-100	80-100	50-60	20-30	NP-5
	5-18	silt loam, very fine sandy loam, fine sandy loam	ML, SM	A-4	0-1	0-10	85-100	80-100	75-100	40-60	25-30	NP-5
	18-31	clay loam, loam	CL	A-6	0	0-5	85-100	80-100	75-100	55-70	35-40	15-20
	31-39	indurated			---	---	---	---	---	---	---	---
	39-60	extremely gravelly loamy sand, very gravelly sand, very gravelly loamy sand	GP-GM, SP-SM	A-1	0-1	5-15	25-60	20-50	10-30	5-10	---	NP
Orovada-----	0-8	very fine sandy loam	ML	A-4	0	0	95-100	90-100	80-95	60-75	20-30	NP-5
	8-26	fine sandy loam, loam	ML, SM	A-4	0	0	75-100	75-95	60-80	40-60	20-30	NP-5
	26-61	stratified fine sandy loam to silt loam	ML, SM	A-4	0	0	75-100	75-95	60-85	35-55	20-30	NP-5
1172: Flue-----	0-6	very fine sandy loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	6-13	silt loam, very fine sandy loam, loam	ML	A-4	0	0	80-100	75-100	65-90	50-70	20-30	NP-5
	13-35	clay, clay loam, gravelly clay loam	CH, CL, GC	A-7	0	0-5	65-100	60-100	45-85	40-80	40-65	20-35
	35-40	indurated			---	---	---	---	---	---	---	---
	40-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP-GM	A-1	0	5-25	25-55	20-50	10-25	5-10	---	NP
Hunnton-----	0-6	very fine sandy loam	ML, SM	A-4	0	0-5	90-100	85-100	75-95	45-65	20-25	NP-5
	6-12	clay loam, loam, silty clay loam	CL	A-6	0	0-5	90-100	85-100	75-95	60-85	30-40	10-20
	12-22	clay, gravelly clay	CH	A-7	0	0-5	75-100	60-95	60-95	55-85	50-60	25-35
	22-36	indurated			---	---	---	---	---	---	---	---
	36-60	very gravelly sandy loam, extremely gravelly loamy sand, very gravelly loamy sand	GM, GP-GM	A-1	0-5	10-20	25-50	20-40	15-30	5-25	---	NP
McConnel-----	0-16	gravelly fine sandy loam	SM	A-2, A-4	0	0	65-80	60-75	45-60	30-40	15-25	NP-5
	16-60	stratified extremely gravelly coarse sand to very gravelly sandy loam	GP	A-1	---	0-15	25-35	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 Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
1201: Erakatak-----	0-6	very gravelly loam	GC, GC-GM	A-2	0	0-10	35-60	25-50	20-40	15-35	25-35	5-15
	6-11	very cobbly clay loam, very cobbly clay	CH, GC, CL	A-7	0-5	25-55	60-75	50-65	45-60	40-55	40-55	15-30
	11-27	very cobbly clay	CL, CH, GC	A-7	0-5	25-55	60-75	50-65	45-60	40-55	45-65	20-35
	27-31	unweathered bedrock			---	---	---	---	---	---	---	---
Ninemile-----	0-2	cobbly loam	ML	A-4	1-5	10-25	85-95	80-90	65-85	50-65	30-35	5-10
	2-14	clay, gravelly clay	CH	A-7	0	0-15	70-100	65-100	60-90	50-80	50-65	25-35
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
Harcany-----	0-4	gravelly silt loam	GM, ML	A-4	0	0-5	60-85	50-75	40-70	35-65	25-30	NP-5
	4-18	very gravelly silt loam	GM	A-2, A-4	0-10	5-25	55-70	40-50	35-45	30-40	25-30	NP-5
	18-72	extremely gravelly sandy loam	GP-GM, GW-GM	A-1	0-10	5-25	25-40	15-35	10-20	5-10	20-25	NP-5
1202: Erakatak-----	0-6	very cobbly loam	GC, SC	A-6	0	35-65	60-80	55-70	45-60	35-50	25-35	10-15
	6-11	very cobbly clay loam	CH, GC, CL	A-7	0	30-55	60-75	50-65	45-60	40-55	40-55	15-30
	11-27	very cobbly clay	CL, CH, GC	A-7	0	30-55	60-75	50-65	45-60	40-55	40-65	20-35
	27-31	unweathered bedrock			---	---	---	---	---	---	---	---
Bullump-----	0-23	very gravelly loam	GC, SC	A-2	0	0-10	45-70	35-50	30-45	25-35	25-35	10-15
	23-52	very gravelly clay loam, very gravelly loam, very gravelly sandy clay loam	GC	A-2, A-6, A-7	0	0-15	40-65	30-50	25-45	15-40	35-45	15-20
	52-56	unweathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop---	---	---	---	---	---	---	---	---	---	---	---	---
1210: Cresal-----	0-6	silt loam	ML	A-4	0	0	100	95-100	90-100	65-85	15-20	NP-5
	6-21	stratified very fine sandy loam to silt loam	ML	A-4	0	0	100	100	95-100	75-90	20-25	NP-5
	21-60	stratified loamy very fine sand to silt loam	ML	A-4	0	0	100	95-100	95-100	75-90	20-25	NP-5
Playas-----	0-6	silty clay loam	CH, MH, CL	A-7	0	0	100	100	100	90-100	45-75	20-40
	6-60	silty clay loam, clay, silty clay	CH, CL, MH	A-7	0	0	100	100	100	90-100	45-75	20-40

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct						
1211: Cresal-----	0-6	silt loam	ML	A-4	0	0	100	95-100	90-100	65-85	15-20	NP-5
	6-21	stratified very fine sandy loam to silt loam	ML	A-4	0	0	100	100	95-100	75-90	20-25	NP-5
	21-60	stratified loamy very fine sand to silt loam	ML	A-4	0	0	100	95-100	95-100	75-90	20-25	NP-5
1212: Cresal-----	0-6	loamy fine sand	SM	A-2	0	0	100	100	80-100	25-35	0-14	NP
	6-21	stratified very fine sandy loam to silt loam	ML	A-4	0	0	100	100	95-100	75-90	20-25	NP-5
	21-60	stratified loamy very fine sand to silt loam	ML	A-4	0	0	100	95-100	95-100	75-90	20-25	NP-5
Tresed-----	0-10	loamy very fine sand	ML, SM	A-4	0	0	95-100	95-100	85-95	40-60	0-14	NP
	10-25	silty clay, clay, clay loam	CH	A-7	0	0	100	100	90-100	80-95	50-65	30-40
	25-60	stratified very fine sand to silt loam	ML	A-4	0	0	100	100	85-95	55-75	25-30	NP-5
Playas-----	0-6	silty clay loam	CL, CH, MH	A-7	0	0	100	100	100	90-100	45-75	20-40
	6-60	silty clay, loam, clay, silty clay	CH, CL, MH	A-7	0	0	100	100	100	90-100	45-75	20-40
1221: Alyan-----	0-17	very gravelly loam	GC	A-2	0	0-5	30-55	25-50	20-40	15-35	25-35	10-15
	17-39	gravelly clay	CL, CH, GC	A-7	0	0-5	55-80	50-75	40-65	35-55	45-60	20-35
	39-43	unweathered bedrock			---	---	---	---	---	---	---	---
Bilbo-----	0-13	very gravelly loam	GC, GC-GM	A-2, A-6, A-4	0	0-10	40-65	30-50	25-45	20-40	25-35	5-15
	13-40	very gravelly sandy clay, very gravelly clay, very gravelly clay loam	GC	A-2, A-7	0	0-25	45-65	35-50	30-45	20-40	40-55	20-35
	40-60	extremely gravelly loamy sand, very gravelly sandy loam	GM, GP-GM	A-1	0	0-10	30-60	15-50	10-40	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						
				Pct	Pct					Pct		
1255: Dutchjohn-----	In											
	0-11	loam	CL-ML	A-4	0	0	85-100	80-100	70-85	50-75	20-25	5-10
	11-16	gravelly loam, gravelly sandy clay loam	CL-ML, GC-GM, ML, GM	A-4	0	0	55-80	50-75	45-70	40-65	25-35	5-10
	16-33	very gravelly loam, very gravelly sandy clay loam	GC-GM, GM	A-1, A-4, A-2	0	0-5	40-60	35-50	30-45	20-40	25-35	5-10
	33-51	very gravelly loamy sand	GM	A-1	0	0	30-55	25-50	20-40	10-25	0-14	NP
	51-61	weathered bedrock			---	---	---	---	---	---	---	---
Cleavage-----	0-7	cobbly loam	CL-ML, SC, CL, SC-SM	A-4, A-6	1-5	15-30	80-95	70-90	60-80	40-70	25-35	5-15
	7-16	very cobbly clay loam, extremely cobbly sandy clay loam, very gravelly clay loam	GC	A-2	5-15	10-40	40-55	30-45	25-45	20-35	30-45	10-20
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
Bregar-----	0-2	very gravelly loam	GC, GC-GM	A-2, A-4, A-6	0	10-20	55-70	40-55	35-50	25-40	25-35	5-15
	2-12	very gravelly sandy clay loam, extremely cobbly clay loam, very gravelly clay loam	GC	A-2	0	5-45	40-50	25-35	20-30	10-25	35-45	15-25
	12-16	unweathered bedrock			---	---	---	---	---	---	---	---
1260: Weso-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	80-90	40-55	15-25	NP-5
	5-11	fine sandy loam, very fine sandy loam, loam	CL-ML, ML, SM, SC-SM	A-4	0	0	95-100	85-100	70-85	45-60	15-30	NP-10
	11-26	fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	95-100	85-100	70-85	45-60	15-25	NP-5
	26-65	stratified very gravelly loamy sand to fine sandy loam	SM	A-1, A-2	0	0	80-90	70-80	45-55	20-30	---	NP
Trocken-----	0-5	gravelly very fine sandy loam	GM, SM	A-2, A-4	0	0-15	65-85	60-75	50-70	30-50	20-25	NP-5
	5-60	stratified extremely gravelly loamy coarse sand to very cobbly loam	GC-GM, GP-GC	A-2	0	5-40	20-60	15-40	10-35	5-25	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 Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct						
1271: Gol-----	0-5	very bouldery sandy loam	SM	A-1, A-2	5-10	5-15	60-75	45-60	35-50	20-30	20-25	NP-5
	5-14	very gravelly clay loam, very gravelly sandy clay loam, very gravelly loam	SC, SC-SM	A-2	0	0-10	60-80	35-50	20-40	15-30	25-40	5-15
	14-18	weathered bedrock			---	---	---	---	---	---	---	---
Say-----	0-9	very bouldery loam	SM	A-4	5-10	5-25	80-100	70-90	50-70	40-50	20-25	NP-5
	9-24	cobbly loam, cobbly sandy clay loam, gravelly sandy clay loam	SC	A-2, A-6	0	5-30	70-100	50-75	40-65	25-50	25-35	10-15
	24-34	gravelly sandy loam, gravelly coarse sandy loam, very gravelly loamy sand	SM	A-1	0	0-15	65-80	45-70	20-30	10-25	15-25	NP-5
	34-38	weathered bedrock			---	---	---	---	---	---	---	---
Rock Outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
1285: Igdell-----	0-7	gravelly loam	CL, SC, GC	A-6	0	0-5	60-85	55-75	50-65	40-55	30-35	10-15
	7-16	clay, gravelly clay, silty clay	CH	A-7	0	0-10	60-95	55-90	50-85	50-80	50-70	25-40
	16-21	gravelly clay loam, gravelly sandy clay loam, gravelly loam	GC, CL, ML, SC	A-6, A-7	0	0-10	60-85	55-80	35-70	35-60	35-45	10-20
	21-42	indurated			---	---	---	---	---	---	---	---
Gochea-----	0-11	gravelly loam	GM, SC-SM, GC-GM, SM	A-2, A-4	0	0-5	55-80	50-75	30-55	25-50	20-30	NP-10
	11-23	gravelly clay loam, gravelly sandy clay loam, clay loam	CL, GC, SC	A-6, A-7	0	0-5	60-95	50-90	45-85	35-65	30-45	10-20
	23-28	sandy loam, gravelly loam	GM, SM, ML	A-2, A-4	0	0-5	60-95	55-90	35-75	25-55	20-25	NP-5
	28-60	stratified extremely gravelly coarse sandy loam to very gravelly loam	GM	A-1	0	0-5	25-40	20-35	15-30	10-20	20-25	NP-5
1291: Tresed-----	0-10	loamy very fine sand	ML, SM	A-4	0	0	95-100	95-100	85-95	40-60	0-14	NP
	10-25	silty clay, clay, clay loam	CH	A-7	0	0	100	100	90-100	80-95	50-65	30-40
	25-60	stratified very fine sand to silt loam	ML	A-4	0	0	100	100	85-95	55-75	25-30	NP-5

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth In	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
					Pct	Pct						
Vanwyper-----	0-7	very cobbly loam	SC	A-2, A-6	0-5	30-45	70-80	55-65	40-55	30-40	25-35	10-15
	7-27	very cobbly clay loam, very cobbly clay	CH, CL, GC	A-7	0-10	30-55	55-75	50-65	45-60	40-55	40-60	20-40
	27-31	unweathered bedrock			---	---	---	---	---	---	---	---
Carstump-----	0-2	very fine sandy loam	ML	A-4	0	0-15	90-100	85-100	75-90	50-60	20-25	NP-5
	2-9	gravelly loam	GM, GC-GM, SC-SM, SM	A-4	0	0	55-80	50-75	40-50	35-45	25-35	5-10
	9-28	very gravelly clay, very cobbly clay	GC	A-2, A-7	0	0-50	40-60	35-50	35-45	30-40	45-60	20-30
	28-32	unweathered bedrock			---	---	---	---	---	---	---	---
1431: Hunnton-----	0-6	gravelly loam	CL, GC	A-6	0	0-5	60-75	55-70	50-65	45-55	25-35	10-15
	6-22	clay, gravelly clay	CH	A-7	0	0-5	75-100	60-95	60-95	55-85	50-60	25-35
	22-36	indurated			---	---	---	---	---	---	---	---
	>36	variable			---	---	---	---	---	---	---	---
Rodock-----	0-2	gravelly sandy loam	GM, SM	A-1, A-2	0	0	55-85	50-75	35-55	20-35	15-25	NP-5
	2-20	loam, fine sandy loam, gravelly loam	CL, SC-SM, CL-ML, SC	A-2, A-6, A-4	0	0	65-95	55-90	50-75	30-55	25-35	5-15
	20-27	gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-1, A-2, A-4	0	0	55-80	50-75	35-65	15-40	15-25	NP-5
	27-60	stratified extremely gravelly coarse sand to very gravelly loam	GM, GP-GM	A-1	0-5	0-25	20-50	15-45	10-30	5-15	---	NP
1432: Rodock-----	0-2	loam	ML, SM	A-4	0	0	85-100	80-95	65-90	45-80	20-25	NP-5
	2-20	loam, fine sandy loam, gravelly loam	CL-ML, SC, CL, SC-SM	A-2, A-4, A-6	0	0	65-95	55-90	50-75	30-55	25-35	5-15
	20-27	gravelly sandy loam, gravelly fine sandy loam	GM, SM	A-2, A-1, A-4	0	0	55-80	50-75	35-65	15-40	15-25	NP-5
	27-60	stratified extremely gravelly coarse sand to very gravelly loam	GM, GP-GM	A-1	0	0-15	20-50	15-45	10-30	5-15	0-14	NP
Connel-----	0-6	very fine sandy loam	ML	A-4	0	0	85-100	75-100	70-95	60-80	20-25	NP-5
	6-20	loam, very fine sandy loam, silt loam	ML	A-4	0	0	85-100	75-100	70-90	50-70	20-25	NP-5
	20-60	stratified very gravelly coarse sand to extremely gravelly loamy sand	GP, GP-GM	A-1	0	0-30	25-55	15-45	10-30	0-10	---	NP

TABLE 12.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage Passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
1481: Cleavage-----	0-7	very cobbly loam	GC, GC-GM	A-2, A-6, A-4	0-5	30-45	55-75	45-65	40-60	25-50	25-35	5-15
	7-16	very cobbly clay loam, extremely cobbly sandy clay loam, very gravelly clay loam	GC	A-2	5-15	10-40	40-55	30-45	25-45	20-35	30-45	10-20
	16-20	unweathered bedrock			---	---	---	---	---	---	---	---
Tusel-----	0-22	very gravelly loam	GM	A-2	0	0-15	50-60	40-50	35-45	25-35	25-35	NP-10
	22-46	extremely gravelly sandy clay loam, extremely gravelly clay loam, very gravelly clay loam	GC	A-2	0	15-45	30-50	25-40	20-35	15-30	30-40	10-20
	46-50	unweathered bedrock			---	---	---	---	---	---	---	---
1482: Tusel-----	0-22	gravelly loam	GM, SM	A-4	0	0-10	55-80	50-75	45-70	35-50	25-35	NP-10
	22-46	extremely gravelly sandy clay loam, extremely gravelly clay loam, very gravelly clay loam	GC	A-2	0	15-45	30-50	25-40	20-35	15-30	30-40	10-20
	46-50	unweathered bedrock			---	---	---	---	---	---	---	---
Layview-----	0-8	very gravelly loam	GC-GM	A-2	0-5	5-15	40-55	35-50	25-40	20-30	25-30	5-10
	8-14	very gravelly loam, very gravelly clay loam	GC	A-2, A-6	0-5	5-15	35-60	30-55	25-45	20-40	30-40	15-20
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
1483: Tusel-----	0-22	gravelly loam	GM, SM	A-4	0	0-10	55-80	50-75	45-70	35-50	25-35	NP-10
	22-46	extremely gravelly sandy clay loam, extremely gravelly clay loam, very gravelly clay loam	GC	A-2	0	15-45	30-50	25-40	20-35	15-30	30-40	10-20
	46-50	unweathered bedrock			---	---	---	---	---	---	---	---
Hackwood-----	0-32	silt loam	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	70-85	60-75	25-35	5-15
	32-60	gravelly loam, gravelly silt loam	CL, SC-SM, CL-ML, GC-GM	A-4, A-6	0	0	60-80	50-75	40-70	35-65	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 Pct	Plas- ticity index
			Unified	AASHTO	>10	3-10	4	10	40	200		
					inches	inches						
	In				Pct	Pct					Pct	
Longcreek-----	0-3	very stony loam	GC-GM, SM, GM, SC-SM	A-4	30-40	0-5	65-75	55-65	45-55	35-45	25-35	5-10
	3-6	very cobbly clay loam	CL	A-6	0	30-40	70-80	60-75	55-70	50-60	30-40	15-20
	6-14	very cobbly clay, very cobbly silty clay	CH, CL	A-7	0	30-50	70-80	60-75	55-70	50-65	45-60	25-35
	14-18	unweathered bedrock			---	---	---	---	---	---	---	---
1570: Delvada-----	0-6	silty clay	CH, CL	A-7	0	0	100	100	85-100	85-100	45-55	20-30
	6-55	silty clay	CH, CL	A-7	0	0	100	100	85-100	85-100	45-55	20-30
	55-60	silty clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	85-100	85-100	35-55	15-30
1572: Delvada-----	0-6	silty clay loam	CL	A-6, A-7	0	0	100	100	85-100	85-100	35-45	15-25
	6-55	silty clay	CH, CL	A-7	0	0	100	100	85-100	85-100	45-55	20-30
	55-60	silty clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	85-100	85-100	35-55	15-30
1579: Delvada-----	0-6	silty clay loam	CL	A-6, A-7	0	0	100	100	85-100	85-100	35-45	15-25
	6-55	silty clay	CH, CL	A-7	0	0	100	100	85-100	85-100	45-55	20-30
	55-60	silty clay, silty clay loam	CH, CL	A-6, A-7	0	0	100	100	85-100	85-100	35-55	15-30
1580: Isolde-----	0-3	fine sand	SP, SP-SM	A-3	0	0	100	100	75-90	0-10	---	NP
	3-60	fine sand, sand	SP, SP-SM	A-3	0	0	100	100	50-80	0-10	---	NP
Essal-----	0-18	silt loam	ML	A-4	0	0	95-100	95-100	85-95	70-80	25-35	NP-10
	18-34	stratified very fine sand to silt loam	SM	A-4	0	0	100	100	70-80	40-50	---	NP
	34-60	fine sand, loamy fine sand	SM	A-2	0	0	100	100	65-80	20-35	---	NP
Essal-----	0-2	loamy fine sand	SM	A-2	0	0	100	100	80-100	15-30	---	NP
	2-34	stratified very fine sand to silt loam	ML	A-4	0	0	100	95-100	70-80	55-75	15-25	NP-5
	34-60	stratified fine sand to loamy fine sand	SM	A-2	0	0	100	95-100	65-80	20-35	---	NP
1594: Boton-----	0-15	silt loam	ML	A-4	0	0	100	100	95-100	75-95	25-35	NP-5
	15-21	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	30-40	5-15
	21-60	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	30-40	5-15
Boton-----	0-15	silt loam	ML	A-4	0	0	100	100	95-100	75-95	25-35	NP-5
	15-21	silt loam	CL, ML	A-4, A-6	0	0	100	100	95-100	80-95	30-40	5-15
	21-60	stratified very fine sandy loam to silty clay loam	CL, ML	A-4, A-6	0	0	100	100	90-100	80-95	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	
1600: Clurde-----	0-5	loam	ML	A-4	0	0	80-100	75-100	70-85	55-65	20-25	NP-5
	5-22	loam, silt loam, clay loam	CL, CL-ML	A-4, A-6	0	0	80-100	75-100	70-85	55-65	25-35	5-15
	22-60	stratified gravelly sandy loam to clay loam	SC-SM	A-2, A-4	0	0	70-95	55-90	45-60	25-45	25-30	5-10
1610: Gochea-----	0-11	gravelly loam	GM, SC-SM, GC-GM, SM	A-2, A-4	0	0-5	55-80	50-75	30-55	25-50	20-30	NP-10
	11-23	gravelly clay loam, gravelly sandy clay loam, clay loam	CL, GC, SC	A-6, A-7	0	0-5	60-95	50-90	45-85	35-65	30-45	10-20
	23-28	sandy loam, gravelly loam	GM, SM, ML	A-2, A-4	0	0-5	60-95	55-90	35-75	25-55	20-25	NP-5
	28-60	stratified extremely gravelly coarse sandy loam to very gravelly loam	GM	A-1	0	0-5	25-40	20-35	15-30	10-20	20-25	NP-5
Gochea-----	0-11	gravelly loam	GM, GC-GM, SC-SM, SM	A-2, A-4	0	0-5	55-80	50-75	30-55	25-50	20-30	NP-10
	11-23	gravelly clay loam, gravelly sandy clay loam, clay loam	CL, GC, SC	A-6, A-7	0	0-5	60-95	50-90	45-85	35-65	30-45	10-20
	23-28	sandy loam, gravelly loam	GM, SM, ML	A-2, A-4	0	0-5	60-95	55-90	35-75	25-55	20-25	NP-5
	28-60	stratified extremely gravelly coarse sandy loam to very gravelly loam	GM	A-1	0	0-5	25-40	20-35	15-30	10-20	20-25	NP-5
Igdell-----	0-7	gravelly loam	CL, SC, GC	A-6	0	0-5	60-85	55-75	50-65	40-55	30-35	10-15
	7-16	clay, gravelly clay, silty clay	CH	A-7	0	0-10	60-95	55-90	50-85	50-80	50-70	25-40
	16-21	gravelly clay loam, gravelly sandy clay loam, gravelly loam	CL, GC, SC, ML	A-6, A-7	0	0-10	60-85	55-80	35-70	35-60	35-45	10-20
	21-42	indurated			---	---	---	---	---	---	---	---
1620: Weso-----	0-5	very fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	80-90	40-55	15-25	NP-5
	5-11	fine sandy loam, very fine sandy loam, loam	ML, SC-SM, CL-ML, SM	A-4	0	0	95-100	85-100	70-85	45-60	15-30	NP-10
	11-26	fine sandy loam, very fine sandy loam	ML, SM	A-4	0	0	95-100	85-100	70-85	45-60	15-25	NP-5
	26-65	stratified very gravelly loamy sand to fine sandy loam	SM	A-1, A-2	0	0	80-90	70-80	45-55	20-30	---	NP

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)

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
100: Anawalt-----	0-2 2-16 16-20	18-27 35-60 ---	1.30-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.06-0.10 0.11-0.17 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 0.5-1.0 ---	.10 .28 ---	.43 .43 ---	1	7	38
Vanwyper-----	0-7 7-27 27-31	18-25 35-55 ---	1.10-1.25 1.30-1.50 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.09-0.12 0.07-0.10 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.17 .10 ---	.43 .43 ---	2	7	38
Alyan-----	0-17 17-39 39-43	8-15 40-55 ---	1.30-1.45 1.15-1.35 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.10-0.15 0.10-0.12 ---	0.0-2.9 6.0-8.9 ---	2.0-3.0 0.5-2.0 ---	.20 .15 ---	.32 .37 ---	2	7	38
101: Anawalt-----	0-2 2-16 16-20	18-27 35-60 ---	1.30-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 ---	0.10-0.15 0.11-0.17 ---	3.0-5.9 6.0-8.9 ---	1.0-2.0 0.5-1.0 ---	.20 .28 ---	.32 .43 ---	1	7	38
Ninemile-----	0-2 2-14 14-18	10-20 40-60 ---	1.15-1.35 1.20-1.40 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.07-0.12 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-3.0 1.0-2.0 ---	.15 .20 ---	.43 .37 ---	1	7	38
Alyan-----	0-17 17-39 39-43	18-27 40-55 ---	1.10-1.25 1.15-1.35 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.07-0.10 0.12-0.14 ---	0.0-2.9 6.0-8.9 ---	2.0-3.0 0.5-1.0 ---	.10 .15 ---	.32 .28 ---	2	7	38
102: Anawalt-----	0-2 2-16 16-20	18-27 35-60 ---	1.30-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.06-0.10 0.11-0.17 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 0.5-1.0 ---	.10 .28 ---	.43 .43 ---	1	7	38
Ninemile-----	0-2 2-14 14-18	10-20 40-60 ---	1.15-1.35 1.20-1.40 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.07-0.12 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-3.0 1.0-2.0 ---	.15 .20 ---	.43 .37 ---	1	7	38
Tusk-----	0-13 13-40 40-60	10-27 27-35 20-35	1.15-1.30 1.20-1.40 1.30-1.50	4.00-14.00 1.40-4.00 4.00-14.00	0.12-0.14 0.15-0.17 0.05-0.06	0.0-2.9 3.0-5.9 0.0-2.9	2.0-4.0 1.0-3.0 0.5-1.0	.24 .32 .10	.43 .55 .49	4	6	48
106: Anawalt-----	0-2 2-16 16-20	18-27 35-60 ---	1.30-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.06-0.10 0.11-0.17 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 0.5-1.0 ---	.10 .28 ---	.43 .43 ---	1	7	38
Ninemile-----	0-2 2-14 14-18	10-20 40-60 ---	1.15-1.35 1.20-1.40 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.07-0.12 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-3.0 1.0-2.0 ---	.15 .20 ---	.43 .37 ---	1	7	38
Alyan-----	0-17 17-39 39-43	18-27 40-55 ---	1.10-1.25 1.15-1.35 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.10-0.15 0.09-0.14 ---	3.0-5.9 6.0-8.9 ---	2.0-3.0 0.5-1.0 ---	.20 .15 ---	.37 .28 ---	2	7	38
107: Anawalt-----	0-2 2-16 16-20	18-27 35-60 ---	1.30-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.06-0.10 0.11-0.17 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 0.5-1.0 ---	.10 .28 ---	.43 .43 ---	1	7	38

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Ninemile-----	0-2	10-20	1.15-1.35	4.00-14.00	0.07-0.12	0.0-2.9	1.0-3.0	.15	.43	1	7	38
	2-14	40-60	1.20-1.40	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.20	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Tusk-----	0-13	10-27	1.15-1.30	4.00-14.00	0.12-0.14	0.0-2.9	2.0-4.0	.24	.43	4	6	48
	13-40	27-35	1.20-1.40	1.40-4.00	0.15-0.17	3.0-5.9	1.0-3.0	.32	.55			
	40-60	20-35	1.30-1.50	4.00-14.00	0.05-0.06	0.0-2.9	0.5-1.0	.10	.49			
108: Anawalt-----	0-2	18-27	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-2.0	.10	.43	1	7	38
	2-16	35-60	1.25-1.45	0.42-1.40	0.11-0.17	6.0-8.9	0.5-1.0	.28	.43			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
Ninemile-----	0-2	15-25	1.35-1.50	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.15	.55	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-3.0	.28	.37			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
Alyan-----	0-17	18-27	1.10-1.25	4.00-14.00	0.10-0.15	3.0-5.9	2.0-3.0	.20	.37	2	7	38
	17-39	40-55	1.15-1.35	0.42-1.40	0.09-0.14	6.0-8.9	0.5-1.0	.15	.28			
	39-43	---	---	0.00-0.01	---	---	---	---	---			
110: Adelaide-----	0-3	6-18	1.35-1.50	4.00-14.00	0.14-0.20	0.0-2.9	0.5-1.0	.55	.64	2	5	56
	3-11	6-18	1.35-1.50	4.00-14.00	0.14-0.20	0.0-2.9	0.0-0.5	.55	.64			
	11-16	---	---	0.42-1.40	---	---	---	---	---			
	16-28	27-40	1.35-1.55	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			
	28-35	---	---	0.00-0.01	---	---	---	---	---			
	35-60	0-5	1.55-1.75	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.10	.24			
120: Bregar-----	0-2	15-25	1.15-1.25	4.00-14.00	0.07-0.10	0.0-2.9	1.0-2.0	.17	.55	1	7	38
	2-12	25-35	1.40-1.45	1.40-4.00	0.07-0.10	0.0-2.9	0.5-1.0	.05	.43			
	12-16	---	---	0.00-0.01	---	---	---	---	---			
Tusk-----	0-13	10-27	1.15-1.30	4.00-14.00	0.12-0.14	0.0-2.9	2.0-4.0	.24	.43	4	6	48
	13-40	27-35	1.20-1.40	1.40-4.00	0.15-0.17	3.0-5.9	1.0-3.0	.32	.55			
	40-60	20-35	1.30-1.50	4.00-14.00	0.05-0.06	0.0-2.9	0.5-1.0	.10	.49			
Bregar-----	0-1	12-25	1.10-1.30	4.00-14.00	0.11-0.13	0.0-2.9	1.0-2.0	.10	.43	1	7	38
	1-9	25-35	1.30-1.50	1.40-4.00	0.07-0.10	0.0-2.9	0.5-1.0	.05	.43			
	9-13	---	---	0.00-0.01	---	---	---	---	---			
Cumelic Haplaquolls----	---	---	---	---	---	---	---	---	---	---	---	---
122: Bregar-----	0-2	15-25	1.15-1.25	4.00-14.00	0.07-0.10	0.0-2.9	1.0-2.0	.17	.55	1	7	38
	2-12	25-35	1.40-1.45	1.40-4.00	0.07-0.10	0.0-2.9	0.5-1.0	.05	.43			
	12-16	---	---	0.00-0.01	---	---	---	---	---			
Tusel-----	0-22	10-20	1.20-1.40	4.00-14.00	0.09-0.15	0.0-2.9	2.0-5.0	.20	.37	3	6	48
	22-46	25-35	1.25-1.45	1.40-4.00	0.08-0.11	3.0-5.9	0.5-2.0	.20	.43			
	46-50	---	---	0.00-0.01	---	---	---	---	---			
Cleavage-----	0-7	15-25	1.15-1.35	4.00-14.00	0.12-0.14	0.0-2.9	1.0-3.0	.10	.43	1	7	38
	7-16	20-35	1.25-1.45	1.40-4.00	0.10-0.12	0.0-2.9	1.0-2.0	.10	.55			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
131: Benin-----	0-8	15-25	1.30-1.50	4.00-14.00	0.17-0.19	0.0-2.9	0.0-0.5	.49	.49	3	4L	86
	8-70	40-50	1.50-1.70	0.01-0.42	0.14-0.16	6.0-8.9	0.0-0.5	.37	.37			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
133: Benin-----	0-8 8-70	15-25 40-50	1.30-1.50 1.50-1.70	4.00-14.00 0.01-0.42	0.17-0.19 0.14-0.16	0.0-2.9 6.0-8.9	0.0-0.5 0.0-0.5	.49 .37	.49 .37	3	4L	86
141: Beoska-----	0-5 5-16 16-40 40-60	5-15 25-35 5-10 5-10	1.45-1.65 1.35-1.55 1.45-1.65 1.45-1.65	4.00-14.00 1.40-4.00 14.00-42.00 14.00-42.00	0.11-0.14 0.16-0.21 0.10-0.14 0.05-0.08	0.0-2.9 3.0-5.9 0.0-2.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5 0.0-0.5	.24 .49 .28 .10	.43 .55 .55 .37	4	4	86
Bluewing-----	0-2 2-60	6-10 3-8	1.40-1.60 1.45-1.65	14.00-42.00 141.0-705.0	0.05-0.07 0.03-0.05	0.0-2.9 0.0-2.9	0.0-0.5 0.0-0.5	.10 .05	.32 .20	5	5	56
143: Beoska-----	0-5 5-26 26-60	8-15 25-35 5-15	1.40-1.55 1.30-1.50 1.35-1.55	4.00-14.00 1.40-4.00 14.00-42.00	0.15-0.18 0.18-0.20 0.10-0.12	0.0-2.9 3.0-5.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5	.55 .49 .28	.64 .64 .55	4	3	86
Broyles-----	0-3 3-12 12-60	8-18 8-18 5-15	1.35-1.55 1.40-1.60 1.40-1.60	4.00-14.00 4.00-14.00 14.00-42.00	0.16-0.18 0.16-0.18 0.09-0.11	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.49 .43 .24	.49 .43 .32	5	3	86
144: Beoska-----	0-5 5-26 26-60	5-15 25-35 5-15	1.40-1.55 1.30-1.50 1.35-1.55	4.00-14.00 1.40-4.00 14.00-42.00	0.18-0.20 0.16-0.21 0.10-0.14	0.0-2.9 3.0-5.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5	.49 .49 .28	.55 .55 .32	4	3	86
Dun Glen-----	0-6 6-23 23-60	10-15 11-16 9-14	1.40-1.55 1.35-1.55 1.35-1.55	4.00-14.00 4.00-14.00 4.00-14.00	0.13-0.15 0.15-0.21 0.11-0.17	0.0-2.9 0.0-2.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5	.32 .43 .32	.32 .43 .32	5	3	86
145: Beoska-----	0-5 5-26 26-60	5-15 25-35 5-10	1.40-1.55 1.30-1.50 1.35-1.55	4.00-14.00 1.40-4.00 14.00-42.00	0.11-0.14 0.16-0.21 0.10-0.14	0.0-2.9 3.0-5.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5	.24 .49 .28	.43 .55 .43	4	4	86
Beoska-----	0-5 5-26 26-60	5-15 25-35 5-10	1.40-1.55 1.30-1.50 1.35-1.55	4.00-14.00 1.40-4.00 14.00-42.00	0.11-0.14 0.16-0.21 0.10-0.14	0.0-2.9 3.0-5.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5	.24 .49 .28	.43 .55 .43	4	4	86
Weso-----	0-5 5-11 11-26 26-65	5-18 5-20 4-15 4-12	1.40-1.55 1.40-1.55 1.55-1.70 1.45-1.65	4.00-14.00 4.00-14.00 4.00-14.00 14.00-42.00	0.13-0.15 0.13-0.18 0.13-0.17 0.11-0.13	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5 0.0-0.5	.49 .49 .49 .28	.49 .55 .55 .43	4	3	86
151: Blackhawk-----	0-4 4-19 19-24 24-60	5-10 5-10 --- 0-12	1.30-1.45 1.20-1.35 --- 1.45-1.65	4.00-14.00 4.00-14.00 0.42-1.40 42.00-141.0	0.19-0.24 0.17-0.24 --- 0.05-0.12	0.0-2.9 0.0-2.9 --- 0.0-2.9	1.0-2.0 0.0-0.5 --- 0.0-0.5	.55 .55 --- .17	.55 .55 --- .24	2	5	56
152: Blackhawk-----	0-4 4-19 19-24 24-60	5-10 5-10 --- 0-12	1.30-1.45 1.20-1.35 --- 1.45-1.65	4.00-14.00 4.00-14.00 0.42-1.40 42.00-141.0	0.19-0.24 0.17-0.24 --- 0.05-0.12	0.0-2.9 0.0-2.9 --- 0.0-2.9	1.0-2.0 0.0-0.5 --- 0.0-0.5	.55 .55 --- .17	.55 .55 --- .24	2	5	56

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
154: Blackhawk-----	0-4	5-10	1.30-1.45	4.00-14.00	0.17-0.24	0.0-2.9	1.0-2.0	.43	.43	2	3	86
	4-19	5-10	1.20-1.35	4.00-14.00	0.17-0.24	0.0-2.9	0.0-0.5	.55	.55			
	19-24	---	---	0.42-1.40	---	---	---	---	---			
	24-60	0-12	1.45-1.65	42.00-141.0	0.05-0.12	0.0-2.9	0.0-0.5	.17	.24			
Golconda-----	0-13	10-17	1.30-1.45	1.40-4.00	0.19-0.21	0.0-2.9	0.5-1.0	.55	.55	3	5	56
	13-22	27-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-1.0	.24	.37			
	22-26	---	---	0.42-1.40	---	---	---	---	---			
	26-60	---	---	0.42-14.00	---	---	---	---	---			
Orovada-----	0-8	7-15	1.35-1.50	4.00-14.00	0.11-0.14	0.0-2.9	0.9-2.0	.37	.43	5	6	48
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.55			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.5-1.0	.43	.49			
155: Blackhawk-----	0-4	2-5	1.40-1.60	14.00-42.00	0.09-0.11	0.0-2.9	1.0-2.0	.24	.24	2	2	134
	4-19	5-10	1.30-1.50	4.00-14.00	0.16-0.20	0.0-2.9	0.0-0.5	.55	.55			
	19-24	---	---	0.42-1.40	---	---	---	---	---			
	24-60	0-12	1.45-1.65	42.00-141.0	0.05-0.07	0.0-2.9	0.0-0.5	.17	.24			
156: Blackhawk-----	0-4	5-10	1.30-1.45	4.00-14.00	0.17-0.24	0.0-2.9	1.0-2.0	.43	.43	2	3	86
	4-19	5-10	1.20-1.35	4.00-14.00	0.17-0.24	0.0-2.9	0.0-0.5	.55	.55			
	19-24	---	---	0.42-1.40	---	---	---	---	---			
	24-60	0-12	1.45-1.65	42.00-141.0	0.05-0.12	0.0-2.9	0.0-0.5	.17	.24			
Clurde-----	0-5	10-15	1.35-1.50	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	5	3	86
	5-22	18-30	1.30-1.50	1.40-4.00	0.17-0.19	3.0-5.9	0.5-1.0	.49	.55			
	22-60	15-25	1.40-1.60	14.00-42.00	0.13-0.16	0.0-2.9	0.0-0.5	.32	.49			
157: Blackhawk-----	0-4	5-10	1.30-1.45	4.00-14.00	0.17-0.24	0.0-2.9	1.0-2.0	.43	.43	2	3	86
	4-19	5-10	1.20-1.35	4.00-14.00	0.17-0.24	0.0-2.9	0.0-0.5	.55	.55			
	19-24	---	---	0.42-1.40	---	---	---	---	---			
	24-60	0-12	1.45-1.65	42.00-141.0	0.05-0.12	0.0-2.9	0.0-0.5	.17	.24			
Broyles-----	0-12	5-15	1.35-1.55	4.00-14.00	0.13-0.16	0.0-2.9	0.5-1.0	.55	.55	5	3	86
	12-60	5-15	1.40-1.60	14.00-42.00	0.09-0.11	0.0-2.9	0.0-0.5	.24	.32			
158: Blackhawk-----	0-4	5-10	1.40-1.60	14.00-42.00	0.07-0.13	0.0-2.9	0.5-1.0	.10	.28	2	5	56
	4-19	5-10	1.45-1.65	4.00-14.00	0.14-0.19	0.0-2.9	0.5-1.0	.37	.64			
	19-24	---	---	0.01-0.42	---	---	---	---	---			
	24-30	5-12	1.50-1.70	42.00-141.0	0.06-0.10	0.0-2.9	0.0-0.5	.17	.28			
	30-60	0-5	1.50-1.70	141.0-705.0	0.03-0.06	0.0-2.9	0.0-0.5	.05	.20			
Trocken-----	0-5	5-18	1.40-1.55	14.00-42.00	0.07-0.09	0.0-2.9	0.0-0.5	.20	.64	5	5	56
	5-60	8-18	1.50-1.70	4.00-14.00	0.05-0.08	0.0-2.9	0.0-0.5	.17	.32			
160: Bliss-----	0-4	8-14	1.35-1.50	14.00-42.00	0.12-0.15	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
161: Bliss-----	0-4	8-18	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.55	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			
Chiara-----	0-3	5-10	1.30-1.45	14.00-42.00	0.13-0.15	0.0-2.9	1.0-2.0	.37	.37	1	3	86
	3-14	10-18	1.35-1.55	4.00-14.00	0.16-0.19	0.0-2.9	0.5-1.0	.49	.49			
	14-60	---	---	0.00-0.01	---	---	---	---	---			
163: Bliss-----	0-4	8-14	1.35-1.50	14.00-42.00	0.12-0.15	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			
Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			
165: Bliss-----	0-4	8-18	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.55	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			
Dugchip-----	0-5	10-18	1.40-1.55	14.00-42.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	5-18	8-18	1.50-1.70	1.40-4.00	0.14-0.18	0.0-2.9	0.0-0.5	.49	.55			
	18-31	25-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.32	.37			
	31-39	---	---	0.00-0.01	---	---	---	---	---			
	39-60	2-8	1.65-1.85	1.40-4.00	0.03-0.05	0.0-2.9	0.0-0.5	.02	.20			
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.18-0.20	0.0-2.9	0.9-2.0	.49	.49	5	5	56
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
166: Bliss-----	0-4	8-14	1.35-1.50	14.00-42.00	0.12-0.15	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.9-2.0	.49	.49	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
167: Bliss-----	0-4	8-14	1.35-1.50	14.00-42.00	0.12-0.15	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			
Blackhawk-----	0-4	5-10	1.30-1.45	4.00-14.00	0.17-0.24	0.0-2.9	1.0-2.0	.43	.43	2	3	86
	4-19	5-10	1.20-1.35	4.00-14.00	0.17-0.24	0.0-2.9	0.0-0.5	.55	.55			
	19-24	---	---	0.42-1.40	---	---	---	---	---			
	24-60	0-12	1.45-1.65	42.00-141.0	0.05-0.12	0.0-2.9	0.0-0.5	.17	.24			
Adelaide-----	0-3	6-18	1.35-1.50	4.00-14.00	0.14-0.20	0.0-2.9	0.5-1.0	.55	.64	2	3	86
	3-11	6-18	1.35-1.50	4.00-14.00	0.14-0.20	0.0-2.9	0.0-0.5	.55	.64			
	11-16	---	---	0.42-1.40	---	---	---	---	---			
	16-28	27-40	1.35-1.55	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			
	28-60	---	---	0.00-0.01	---	---	---	---	---			
169: Bliss-----	0-4	8-14	1.35-1.50	14.00-42.00	0.12-0.15	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.18-0.20	0.0-2.9	0.9-2.0	.49	.49	5	5	56
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
171: Bubus-----	0-5	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.64	5	3	86
	5-63	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.49			
174: Bubus-----	0-5	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.64	5	3	86
	5-63	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.49			
Needle Peak-----	0-4	20-27	1.25-1.40	1.40-4.00	0.19-0.21	3.0-5.9	0.5-1.0	.55	.55	5	6	48
	4-60	20-35	1.30-1.45	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
178: Bubus-----	0-5	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.64	5	3	86
	5-63	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.49			
Preble-----	0-10	10-15	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.5-1.0	.37	.37	4	3	86
	10-55	8-15	1.60-1.75	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	55-65	0-5	1.50-1.65	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.17			
184: Chiara-----	0-3	10-15	1.25-1.40	14.00-42.00	0.09-0.12	0.0-2.9	1.0-2.0	.17	.32	1	4	86
	3-14	10-15	1.35-1.55	4.00-14.00	0.16-0.19	0.0-2.9	0.5-1.0	.55	.55			
	14-60	---	---	0.00-0.01	---	---	---	---	---			
McConnel-----	0-1	5-15	1.35-1.50	14.00-42.00	0.11-0.13	0.0-2.9	1.0-2.0	.37	.43	2	3	86
	1-16	5-15	1.40-1.60	14.00-42.00	0.12-0.15	0.0-2.9	0.8-2.0	.32	.32			
	16-60	0-5	1.45-1.60	141.0-705.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
185: Chiara-----	0-3	10-18	1.25-1.40	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.55	1	3	86
	3-14	10-18	1.35-1.55	4.00-14.00	0.16-0.19	0.0-2.9	0.5-1.0	.49	.49			
	14-60	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
Dacker-----	0-7	10-20	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	2	3	86
	7-18	27-35	1.25-1.45	1.40-4.00	0.16-0.19	3.0-5.9	0.5-1.0	.37	.49			
	18-22	18-25	1.25-1.45	4.00-14.00	0.09-0.19	0.0-2.9	0.0-0.5	.49	.64			
	22-26	---	---	0.00-0.01	---	---	---	---	---			
McConnel-----	0-16	5-18	1.35-1.50	14.00-42.00	0.10-0.13	0.0-2.9	0.8-2.0	.32	.37	2	4	86
	16-60	0-5	1.45-1.60	141.0-705.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.15			
186: Chiara-----	0-3	10-18	1.25-1.40	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.55	1	3	86
	3-14	10-18	1.35-1.55	4.00-14.00	0.16-0.19	0.0-2.9	0.5-1.0	.49	.49			
	14-60	---	---	0.00-0.01	---	---	---	---	---			
Hunnton-----	0-6	10-18	1.30-1.45	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	6-12	20-35	1.25-1.45	1.40-4.00	0.16-0.20	3.0-5.9	0.0-0.5	.49	.55			
	12-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.0-0.5	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	2-10	1.55-1.70	14.00-42.00	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
187: Chiara-----	0-3	10-15	1.25-1.40	4.00-14.00	0.11-0.13	0.0-2.9	1.0-2.0	.20	.37	1	6	48
	3-14	10-15	1.35-1.55	4.00-14.00	0.16-0.19	0.0-2.9	0.5-1.0	.55	.55			
	14-60	---	---	0.00-0.01	---	---	---	---	---			
Boyer-----	0-6	10-18	1.25-1.45	4.00-14.00	0.12-0.15	0.0-2.9	1.0-2.0	.32	.55	1	4	86
	6-19	10-18	1.35-1.55	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.15	.49			
	19-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
Chiara-----	0-3	10-18	1.25-1.40	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.55	1	3	86
	3-14	10-18	1.35-1.55	4.00-14.00	0.16-0.19	0.0-2.9	0.5-1.0	.49	.49			
	14-60	---	---	0.00-0.01	---	---	---	---	---			
188: Chiara-----	0-3	10-18	1.25-1.40	4.00-14.00	0.12-0.14	0.0-2.9	1.0-2.0	.17	.55	1	5	56
	3-14	10-18	1.35-1.55	4.00-14.00	0.16-0.18	0.0-2.9	0.5-1.0	.49	.55			
	14-60	---	---	0.00-0.01	---	---	---	---	---			
Chiara-----	0-3	10-18	1.25-1.40	4.00-14.00	0.17-0.19	0.0-2.9	1.0-2.0	.28	.49	1	6	48
	3-14	10-18	1.35-1.55	4.00-14.00	0.16-0.18	0.0-2.9	0.5-1.0	.49	.55			
	14-60	---	---	0.00-0.01	---	---	---	---	---			
190: Beeox-----	0-3	10-18	1.50-1.70	4.00-14.00	0.16-0.18	0.0-2.9	0.0-0.5	.37	.64	2	6	48
	3-12	10-18	1.60-1.80	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.5	.55	.64			
	12-21	35-55	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.37			
	21-44	15-25	1.40-1.60	4.00-14.00	0.11-0.17	3.0-5.9	0.0-0.5	.37	.37			
	44-60	5-10	1.30-1.50	14.00-42.00	0.03-0.05	0.0-2.9	0.0-0.5	.02	.15			
Oxcoral-----	0-5	16-24	1.35-1.50	4.00-14.00	0.11-0.14	0.0-2.9	0.0-0.5	.20	.37	2	6	48
	5-24	35-50	1.30-1.50	0.01-0.42	0.15-0.18	6.0-8.9	0.0-0.5	.28	.32			
	24-60	8-15	1.50-1.70	14.00-42.00	0.05-0.08	0.0-2.9	0.0-0.5	.10	.37			
191: Beeox-----	0-3	10-18	1.50-1.70	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.55	.64	2	3	86
	3-12	10-18	1.60-1.80	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.5	.55	.64			
	12-21	35-55	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.37			
	21-44	15-25	1.40-1.60	4.00-14.00	0.11-0.17	3.0-5.9	0.0-0.5	.37	.37			
	44-60	5-10	1.30-1.50	14.00-42.00	0.03-0.05	0.0-2.9	---	.02	.15			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
Connel-----	0-6	10-15	1.35-1.55	14.00-42.00	0.09-0.15	0.0-2.9	0.8-2.0	.24	.43	3	4	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.5-1.0	.28	.32			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
192:												
Beeox-----	0-3	10-18	1.50-1.70	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.55	.64	2	3	86
	3-12	10-18	1.60-1.80	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.5	.55	.64			
	12-21	35-55	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.37			
	21-44	15-25	1.40-1.60	4.00-14.00	0.11-0.17	3.0-5.9	0.0-0.5	.37	.37			
	44-60	5-10	1.30-1.50	14.00-42.00	0.03-0.05	0.0-2.9	0.0-0.5	.02	.15			
Bliss-----	0-4	8-18	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.55	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			
200:												
Davey-----	0-5	2-5	1.45-1.65	42.00-141.0	0.09-0.10	0.0-2.9	0.5-1.0	.20	.20	5	2	134
	5-14	5-10	1.40-1.60	14.00-42.00	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28			
	14-67	2-5	1.50-1.65	42.00-141.0	0.06-0.10	0.0-2.9	0.0-0.5	.20	.24			
201:												
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
202:												
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
203:												
Davey-----	0-5	3-6	1.45-1.60	42.00-141.0	0.08-0.10	0.0-2.9	0.6-1.0	.32	.32	3	2	134
	5-20	10-15	1.50-1.65	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.28	.32			
	20-50	5-10	1.50-1.65	42.00-141.0	0.08-0.10	0.0-2.9	0.0-0.5	.20	.20			
	50-60	---	---	0.01-0.42	---	---	---	---	---			
Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	1	250
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			
204:												
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
Blackhawk-----	0-4	2-5	1.40-1.60	14.00-42.00	0.09-0.11	0.0-2.9	1.0-2.0	.24	.24	2	2	134
	4-19	5-10	1.30-1.50	4.00-14.00	0.16-0.20	0.0-2.9	0.0-0.5	.55	.55			
	19-24	---	---	0.42-1.40	---	---	---	---	---			
	24-60	0-12	1.45-1.65	42.00-141.0	0.05-0.07	0.0-2.9	0.0-0.5	.17	.24			
205:												
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
Hawsley-----	0-3	5-12	1.50-1.65	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.15	.15	5	2	134
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
206: Broyles-----	0-3	8-18	1.35-1.55	4.00-14.00	0.16-0.18	0.0-2.9	0.5-1.0	.49	.49	5	3	86
	3-12	8-18	1.40-1.60	4.00-14.00	0.16-0.18	0.0-2.9	0.0-0.5	.43	.43			
	12-60	5-15	1.40-1.60	14.00-42.00	0.09-0.11	0.0-2.9	0.0-0.5	.24	.32			
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
Dun Glen-----	0-6	10-15	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.32	.32	5	3	86
	6-23	11-16	1.35-1.55	4.00-14.00	0.15-0.21	0.0-2.9	0.0-0.5	.43	.43			
	23-60	9-14	1.35-1.55	4.00-14.00	0.11-0.17	0.0-2.9	0.0-0.5	.32	.32			
207: Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
Pumper-----	0-4	8-18	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.0-0.5	.28	.32	2	3	86
	4-11	12-20	1.40-1.60	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.49	.55			
	11-18	8-15	1.40-1.60	14.00-42.00	0.04-0.09	0.0-2.9	0.0-0.5	.10	.55			
	18-60	0-5	1.60-1.75	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
208: Davey-----	0-5	5-10	1.40-1.60	14.00-42.00	0.13-0.18	0.0-2.9	0.8-2.0	.24	.24	2	3	86
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
210: Flue-----	0-6	10-18	1.30-1.50	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	5	56
	6-13	10-20	1.40-1.60	1.40-4.00	0.15-0.19	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-7	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			
Connel-----	0-6	10-15	1.35-1.55	14.00-42.00	0.09-0.15	0.0-2.9	0.8-2.0	.24	.43	3	4	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.5-1.0	.28	.32			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
211: Flue-----	0-6	10-18	1.35-1.55	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	6-13	10-20	1.40-1.60	1.40-4.00	0.15-0.19	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-7	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			
Golconda-----	0-13	10-17	1.30-1.45	1.40-4.00	0.19-0.21	0.0-2.9	0.5-1.0	.55	.55	3	5	56
	13-22	27-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.24	.37			
	22-26	---	---	0.42-1.40	---	---	---	---	---			
	26-60	---	---	0.42-1.40	---	---	---	---	---			
Snapp-----	0-5	8-15	1.30-1.45	1.40-4.00	0.15-0.17	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	5-21	35-60	1.25-1.40	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
212: Flue-----	0-6	10-18	1.30-1.50	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	5	56
	6-13	10-20	1.40-1.60	1.40-4.00	0.15-0.19	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-7	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.9-2.0	.49	.49	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
213: Flue-----	0-6	10-18	1.30-1.50	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	5	56
	6-13	10-20	1.40-1.60	1.40-4.00	0.15-0.19	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-7	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			
Puett-----	0-5	8-15	1.30-1.50	14.00-42.00	0.08-0.10	0.0-2.9	0.5-1.0	.15	.43	2	7	38
	5-10	5-10	1.35-1.55	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.15	.24			
	10-14	---	---	0.01-0.42	---	---	---	---	---			
215: Flue-----	0-6	10-18	1.30-1.50	4.00-14.00	0.10-0.15	0.0-2.9	1.0-2.0	.28	.55	2	6	48
	6-13	10-20	1.40-1.60	1.40-4.00	0.17-0.21	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-8	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			
Snapp-----	0-5	8-15	1.30-1.45	1.40-4.00	0.15-0.17	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	5-21	35-60	1.25-1.40	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			
Snapp-----	0-5	5-15	1.30-1.45	4.00-14.00	0.07-0.12	0.0-2.9	1.0-2.0	.15	.49	2	5	56
	5-21	35-60	1.25-1.45	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.6	.05	.24			
216: Flue-----	0-6	10-18	1.35-1.55	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	6-13	10-20	1.40-1.60	1.40-4.00	0.15-0.19	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-7	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			
217: Flue-----	0-6	10-18	1.30-1.50	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	5	56
	6-13	10-20	1.40-1.60	1.40-4.00	0.15-0.19	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-7	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			
218: Flue-----	0-6	10-18	1.30-1.50	4.00-14.00	0.10-0.15	0.0-2.9	1.0-2.0	.28	.55	2	6	48
	6-13	10-20	1.40-1.60	1.40-4.00	0.17-0.21	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-8	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Rodock-----	0-2	10-18	1.35-1.55	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.32	.37	4	5	56
	2-20	15-25	1.40-1.60	4.00-14.00	0.11-0.18	0.0-2.9	0.5-3.0	.28	.43			
	20-27	8-15	1.45-1.65	1.40-4.00	0.05-0.12	0.0-2.9	0.5-1.0	.17	.32			
	27-60	0-5	1.45-1.65	14.00-42.00	0.03-0.06	0.0-2.9	0.0-0.5	.02	.20			
Snapp-----	0-5	8-15	1.30-1.45	1.40-4.00	0.15-0.17	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	5-21	35-60	1.25-1.40	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			
222: Bloor-----	0-15	8-18	1.35-1.55	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.49	.49	5	3	86
	15-30	27-35	1.40-1.60	0.42-1.40	0.12-0.19	3.0-5.9	0.0-0.5	.43	.43			
	30-42	10-15	1.50-1.70	0.42-1.40	0.12-0.18	0.0-2.9	0.0-0.5	.49	.49			
	42-60	10-20	1.40-1.60	4.00-14.00	0.07-0.16	0.0-2.9	0.0-0.5	.43	.49			
231: Dun Glen-----	0-6	10-15	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.32	.32	5	3	86
	6-23	11-16	1.35-1.55	4.00-14.00	0.15-0.21	0.0-2.9	0.0-0.5	.43	.43			
	23-60	9-14	1.35-1.55	4.00-14.00	0.11-0.17	0.0-2.9	0.0-0.5	.32	.32			
233: Dun Glen-----	0-6	10-15	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.32	.32	5	3	86
	6-23	11-16	1.35-1.55	4.00-14.00	0.15-0.21	0.0-2.9	0.0-0.5	.43	.43			
	23-60	9-14	1.35-1.55	4.00-14.00	0.11-0.17	0.0-2.9	0.0-0.5	.32	.32			
241: Sojur-----	0-5	18-25	1.25-1.45	4.00-14.00	0.05-0.08	0.0-2.9	0.0-0.5	.05	.43	1	8	0
	5-9	---	---	0.00-0.01	---	---	---	---	---			
250: Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.8-2.0	.32	.37	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	1	250
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			
251: Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
252: Connel-----	0-6	10-15	1.35-1.55	14.00-42.00	0.09-0.15	0.0-2.9	0.8-2.0	.24	.43	3	4	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.5-1.0	.28	.32			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
253: Connel-----	0-6	10-18	1.05-1.25	4.00-14.00	0.15-0.19	0.0-2.9	1.0-2.0	.55	.55	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
McConnel-----	0-16	10-18	1.35-1.50	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.37	.37	2	5	56
	16-60	0-5	1.45-1.60	141.0-705.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
254: Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
Zevadex-----	0-9	10-25	1.20-1.40	4.00-14.00	0.15-0.17	3.0-5.9	1.0-2.0	.37	.43	5	5	56
	9-20	20-30	1.30-1.50	1.40-4.00	0.16-0.20	3.0-5.9	0.5-1.0	.24	.43			
	20-55	12-18	1.65-1.80	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.6	.37	.43			
	55-60	8-12	1.55-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.0-0.6	.32	.32			
255: Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
McConnel-----	0-16	5-18	1.35-1.50	14.00-42.00	0.10-0.13	0.0-2.9	0.8-2.0	.32	.37	2	4	86
	16-60	0-5	1.45-1.60	141.0-705.0	0.03-0.05	0.0-2.9	---	.02	.15			
257: Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
258: Connel-----	0-6	10-18	1.05-1.25	4.00-14.00	0.15-0.19	0.0-2.9	1.0-2.0	.55	.55	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
262: Golconda-----	0-13	10-17	1.30-1.45	1.40-4.00	0.19-0.21	0.0-2.9	0.5-1.0	.55	.55	3	5	56
	13-22	27-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.24	.37			
	22-26	---	---	0.42-1.40	---	---	---	---	---			
	26-60	---	---	0.42-14.00	---	---	---	---	---			
Snapp-----	0-5	8-15	1.30-1.45	1.40-4.00	0.16-0.18	0.0-2.9	1.0-2.0	.37	.37	2	5	56
	5-21	35-60	1.25-1.40	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			
263: Bliss-----	0-4	8-18	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.55	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			
Golconda-----	0-13	10-17	1.35-1.50	1.40-4.00	0.15-0.17	0.0-2.9	0.5-1.0	.55	.64	3	3	86
	13-22	27-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.24	.37			
	22-26	---	---	0.42-1.40	---	---	---	---	---			
	26-60	---	---	0.42-14.00	---	---	---	---	---			
Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
270: Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	1	250
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
302:												
Essal-----	0-18	15-20	1.55-1.70	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.55	.55	3	3	86
	18-34	5-12	1.50-1.70	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.5	.55	.55			
	34-60	2-5	1.60-1.80	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.20	.20			
Isolde-----	0-3	0-5	1.40-1.60	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.17	.17	5	1	250
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.17	.17			
Playas-----	0-6	35-40	1.50-1.70	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	---	5	4L	86
	6-60	35-70	1.60-1.80	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	---			
305:												
Essal-----	0-2	2-5	1.55-1.75	42.00-141.0	0.09-0.10	0.0-2.9	0.0-0.5	.15	.15	3	2	134
	2-34	8-18	1.50-1.70	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.55	.55			
	34-60	2-8	1.60-1.80	42.00-141.0	0.06-0.09	0.0-2.9	0.0-0.5	.20	.20			
Isolde-----	0-3	0-5	1.40-1.60	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.17	.17	5	1	250
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.17	.17			
Hawsley-----	0-3	0-5	1.50-1.70	42.00-141.0	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15	5	1	250
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
307:												
Essal-----	0-2	2-5	1.55-1.75	42.00-141.0	0.09-0.10	0.0-2.9	0.0-0.5	.15	.15	3	2	134
	2-34	8-18	1.50-1.70	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.55	.55			
	34-60	2-8	1.60-1.80	42.00-141.0	0.06-0.09	0.0-2.9	0.0-0.5	.20	.20			
Isolde-----	0-3	0-5	1.40-1.60	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.17	.17	5	1	250
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.17	.17			
Tressed-----	0-10	0-5	1.50-1.70	42.00-141.0	0.06-0.10	0.0-2.9	0.0-0.5	.24	.24	5	2	134
	10-25	35-55	1.35-1.55	0.42-1.40	0.15-0.18	6.0-8.9	0.0-0.5	.32	.32			
	25-60	5-18	1.45-1.65	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.55	.55			
311:												
Harcany-----	0-4	7-10	1.20-1.40	4.00-14.00	0.10-0.12	0.0-2.9	3.0-5.0	.20	.43	5	7	38
	4-18	5-10	1.20-1.40	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.15	.49			
	18-72	10-15	1.30-1.50	14.00-42.00	0.10-0.12	0.0-2.9	0.5-2.0	.10	.32			
Croesus-----	0-3	10-18	1.30-1.45	4.00-14.00	0.06-0.10	0.0-2.9	2.0-4.0	.10	.37	2	7	38
	3-33	10-18	1.30-1.45	4.00-14.00	0.03-0.07	0.0-2.9	1.0-3.0	.05	.32			
	33-37	---	---	0.00-0.01	---	---	---	---	---			
Hackwood-----	0-32	18-27	1.10-1.25	4.00-14.00	0.16-0.21	3.0-5.9	2.0-4.0	.37	.43	5	6	48
	32-60	18-27	1.25-1.40	4.00-14.00	0.10-0.17	3.0-5.9	1.0-2.0	.28	.49			
Cumelic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
312:												
Harcany-----	0-4	10-15	1.20-1.40	4.00-14.00	0.10-0.15	0.0-2.9	3.0-5.0	.28	.49	5	6	48
	4-18	5-10	1.30-1.50	4.00-14.00	0.16-0.18	0.0-2.9	2.0-4.0	.15	.49			
	18-72	10-15	1.45-1.65	14.00-42.00	0.10-0.12	0.0-2.9	1.0-2.0	.10	.32			
Hackwood-----	0-32	18-27	1.10-1.25	4.00-14.00	0.16-0.21	3.0-5.9	2.0-4.0	.37	.43	5	6	48
	32-60	18-27	1.25-1.40	4.00-14.00	0.10-0.17	3.0-5.9	1.0-2.0	.28	.49			
Cleavage-----	0-7	15-25	1.15-1.35	4.00-14.00	0.12-0.14	0.0-2.9	1.0-3.0	.10	.32	1	7	38
	7-16	20-35	1.25-1.45	1.40-4.00	0.10-0.12	0.0-2.9	0.5-1.0	.10	.49			
	16-20	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
321: Humboldt-----	0-18 18-60	27-40 35-45	1.00-1.15 1.10-1.20	1.40-14.00 1.40-4.00	0.19-0.21 0.17-0.19	3.0-5.9 3.0-5.9	3.0-6.0 0.0-3.0	.37 .28	.37 .28	5	4	86
322: Humboldt-----	0-18 18-60	30-40 35-45	1.15-1.25 1.05-1.15	1.40-14.00 1.40-4.00	0.19-0.21 0.17-0.19	3.0-5.9 3.0-5.9	1.0-3.0 0.0-0.5	.37 .32	.37 .32	5	4L	86
325: Humboldt-----	0-18 18-60	27-40 35-45	1.00-1.15 1.10-1.20	1.40-14.00 1.40-4.00	0.19-0.21 0.17-0.19	3.0-5.9 3.0-5.9	3.0-6.0 0.0-3.0	.37 .28	.37 .28	5	4	86
Wendane-----	0-20 20-35 35-60	15-25 15-25 27-35	1.35-1.50 1.30-1.50 1.30-1.50	4.00-14.00 4.00-14.00 1.40-4.00	0.15-0.21 0.19-0.21 0.19-0.21	0.0-2.9 0.0-2.9 3.0-5.9	1.0-2.0 0.0-0.5 0.0-0.5	.55 .43 .43	.55 .43 .43	5	4	86
330: McConnel-----	0-1 1-16 16-60	5-15 5-15 0-5	1.35-1.50 1.40-1.60 1.45-1.60	14.00-42.00 14.00-42.00 141.0-705.0	0.11-0.13 0.12-0.15 0.03-0.05	0.0-2.9 0.0-2.9 0.0-2.9	1.0-2.0 0.8-2.0 0.0-0.5	.37 .32 .02	.43 .32 .10	2	3	86
331: McConnel-----	0-1 1-16 16-60	7-15 5-15 0-5	1.35-1.50 1.40-1.60 1.45-1.60	14.00-42.00 14.00-42.00 141.0-705.0	0.12-0.15 0.12-0.15 0.03-0.05	0.0-2.9 0.0-2.9 0.0-2.9	1.0-2.0 0.8-2.0 0.0-0.5	.32 .32 .02	.64 .32 .10	2	4	86
333: McConnel-----	0-9 9-16 16-60	0-5 10-15 0-5	1.50-1.70 1.40-1.60 1.45-1.60	14.00-42.00 14.00-42.00 141.0-705.0	0.10-0.12 0.15-0.18 0.03-0.05	0.0-2.9 0.0-2.9 0.0-2.9	0.6-1.0 1.0-2.0 0.0-0.5	.49 .55 .02	.49 .64 .15	2	2	134
Shabliss-----	0-4 4-15 15-20 20-52 52-62	5-10 5-10 --- 5-10 0-5	1.35-1.55 1.35-1.55 --- 1.50-1.70 1.40-1.60	14.00-42.00 4.00-14.00 0.42-1.40 14.00-42.00 42.00-141.0	0.13-0.15 0.16-0.20 --- 0.11-0.14 0.06-0.08	0.0-2.9 0.0-2.9 --- 0.0-2.9 0.0-2.9	0.6-1.0 0.5-1.0 --- 0.0-0.5 0.0-0.5	.32 .49 --- .43 .24	.32 .49 --- .49 .28	2	3	86
335: McConnel-----	0-1 1-16 16-60	5-10 10-18 0-5	1.35-1.50 1.35-1.50 1.45-1.60	14.00-42.00 14.00-42.00 141.0-705.0	0.05-0.10 0.09-0.12 0.03-0.04	0.0-2.9 0.0-2.9 0.0-2.9	1.0-2.0 0.0-0.5 0.0-0.5	.05 .17 .02	.32 .32 .15	2	5	56
338: McConnel-----	0-1 1-16 16-60	7-15 5-15 0-5	1.35-1.50 1.40-1.60 1.45-1.60	14.00-42.00 14.00-42.00 141.0-705.0	0.12-0.15 0.12-0.15 0.03-0.05	0.0-2.9 0.0-2.9 0.0-2.9	1.0-2.0 0.8-2.0 0.0-0.5	.32 .32 .02	.64 .32 .10	2	4	86
Pumper-----	0-4 4-11 11-18 18-60	10-18 12-20 8-15 0-5	1.40-1.60 1.40-1.60 1.40-1.60 1.60-1.75	4.00-14.00 4.00-14.00 14.00-42.00 42.00-141.0	0.16-0.20 0.15-0.20 0.04-0.09 0.03-0.05	0.0-2.9 0.0-2.9 0.0-2.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5 0.0-0.5	.55 .49 .10 .02	.64 .55 .55 .10	2	3	86
Whirlo-----	0-14 14-43 43-60	7-10 5-10 0-10	1.30-1.50 1.30-1.50 1.30-1.50	4.00-14.00 14.00-42.00 14.00-42.00	0.10-0.14 0.07-0.09 0.05-0.07	0.0-2.9 0.0-2.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5	.28 .15 .15	.49 .43 .32	5	4	86
340: Boger-----	0-6 6-19 19-28 28-32	10-18 10-18 --- ---	1.25-1.45 1.35-1.55 --- ---	4.00-14.00 4.00-14.00 0.00-0.01 0.00-0.01	0.12-0.15 0.07-0.12 --- ---	0.0-2.9 0.0-2.9 --- ---	1.0-2.0 0.0-0.6 --- ---	.32 .15 --- ---	.55 .49 --- ---	1	6	48

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.15	.55	1	7	38
	4-14	25-35	1.30-1.50	1.40-4.00	0.08-0.11	3.0-5.9	0.5-1.0	.15	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
342: Boger-----	0-6	10-18	1.25-1.45	4.00-14.00	0.12-0.15	0.0-2.9	1.0-2.0	.32	.55	1	6	48
	6-19	10-18	1.35-1.55	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.15	.49			
	19-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
Goosel-----	0-13	18-26	1.35-1.55	14.00-42.00	0.09-0.14	3.0-5.9	1.0-2.0	.28	.49	2	7	38
	13-21	35-60	1.20-1.40	0.42-1.40	0.15-0.20	6.0-8.9	0.0-0.5	.32	.37			
	21-25	12-25	1.50-1.70	4.00-14.00	0.08-0.10	0.0-2.9	0.0-0.5	.20	.49			
	25-26	---	---	0.00-0.01	---	---	---	---	---			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
Soughe-----	0-4	10-20	1.30-1.45	1.40-4.00	0.05-0.07	0.0-2.9	1.0-2.0	.10	.32	1	7	38
	4-14	25-35	1.20-1.40	1.40-4.00	0.08-0.11	3.0-5.9	0.0-0.5	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
343: Boger-----	0-6	8-18	1.25-1.45	4.00-14.00	0.15-0.18	0.0-2.9	1.0-2.0	.32	.55	1	6	48
	6-19	10-18	1.35-1.55	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.15	.55			
	19-28	---	---	0.00-0.01	---	---	---	---	---			
	28-38	---	---	0.00-0.01	---	---	---	---	---			
351: Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.05-0.07	0.0-2.9	0.5-1.0	.28	.28	5	1	250
	7-60	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.24	.24			
Prideen-----	0-7	0-5	1.45-1.65	42.00-141.0	0.09-0.10	0.0-2.9	0.5-1.0	.24	.24	5	2	134
	7-46	20-35	1.35-1.55	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
	46-61	35-50	1.35-1.50	0.42-1.40	0.16-0.18	6.0-8.9	0.0-0.5	.43	.43			
Playas-----	0-6	35-40	1.50-1.70	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	.37	5	4L	86
	6-60	35-70	1.60-1.80	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	.37			
352: Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	1	250
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			
Kleck-----	0-3	4-10	1.55-1.70	42.00-141.0	0.09-0.10	0.0-2.9	0.5-0.9	.37	.37	2	2	134
	3-15	18-35	1.45-1.60	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.6	.43	.43			
	15-60	---	---	0.01-0.42	---	---	---	---	---			
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
360: Needle Peak-----	0-4	20-27	1.25-1.40	1.40-4.00	0.19-0.21	3.0-5.9	0.5-1.0	.55	.55	5	6	48
	4-60	20-35	1.30-1.45	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
363: Needle Peak-----	0-4	10-15	1.35-1.50	14.00-42.00	0.13-0.15	0.0-2.9	0.5-1.0	.20	.20	5	3	86
	4-60	20-35	1.30-1.45	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
Batán-----	0-4	2-5	1.50-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.0-0.5	.20	.20	5	2	134
	4-60	20-30	1.25-1.45	1.40-4.00	0.19-0.25	3.0-5.9	0.0-0.5	.49	.49			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	1	250
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			
370:												
Wieland-----	0-8	5-20	1.25-1.45	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	5	3	86
	8-17	40-55	1.25-1.40	0.42-1.40	0.09-0.13	6.0-8.9	0.5-1.0	.28	.43			
	17-33	27-35	1.45-1.60	0.42-1.40	0.10-0.17	3.0-5.9	0.0-0.5	.43	.49			
	33-60	10-20	1.45-1.65	4.00-14.00	0.09-0.16	0.0-2.9	0.0-0.5	.49	.64			
Wieland-----	0-8	18-27	1.15-1.30	4.00-14.00	0.06-0.12	0.0-2.9	1.0-2.0	.20	.64	5	7	38
	8-17	40-55	1.25-1.40	0.42-1.40	0.09-0.13	6.0-8.9	0.5-1.0	.28	.43			
	17-33	27-35	1.45-1.60	0.42-1.40	0.10-0.17	3.0-5.9	0.0-0.5	.28	.55			
	33-60	10-20	1.45-1.65	4.00-14.00	0.09-0.16	0.0-2.9	0.0-0.5	.32	.32			
380:												
Bullump-----	0-13	15-25	1.10-1.20	4.00-14.00	0.10-0.15	0.0-2.9	2.0-5.0	.20	.37	3	7	38
	13-23	15-25	1.10-1.20	4.00-14.00	0.08-0.12	0.0-2.9	0.5-2.0	.15	.49			
	23-52	25-35	1.35-1.45	1.40-4.00	0.09-0.14	0.0-2.9	0.5-1.0	.10	.32			
	52-56	---	---	0.00-0.01	---	---	---	---	---			
Tusel-----	0-22	10-20	1.20-1.40	4.00-14.00	0.09-0.15	0.0-2.9	2.0-5.0	.20	.37	3	6	48
	22-46	25-35	1.25-1.45	1.40-4.00	0.08-0.11	3.0-5.9	0.5-2.0	.20	.43			
	46-50	---	---	0.00-0.01	---	---	---	---	---			
381:												
Bullump-----	0-23	15-25	1.10-1.20	4.00-14.00	0.11-0.14	0.0-2.9	2.0-6.0	.20	.37	3	6	48
	23-52	25-35	1.35-1.45	1.40-4.00	0.09-0.14	0.0-2.9	0.5-3.0	.10	.32			
	52-56	---	---	0.00-0.01	---	---	---	---	---			
Tusel-----	0-22	10-20	1.20-1.40	4.00-14.00	0.09-0.15	0.0-2.9	2.0-5.0	.20	.37	3	6	48
	22-46	25-35	1.25-1.45	1.40-4.00	0.08-0.11	3.0-5.9	0.5-2.0	.20	.43			
	46-50	---	---	0.00-0.01	---	---	---	---	---			
Hackwood-----	0-32	18-27	1.10-1.25	4.00-14.00	0.16-0.21	3.0-5.9	2.0-4.0	.37	.43	5	6	48
	32-60	18-27	1.25-1.40	4.00-14.00	0.10-0.17	3.0-5.9	1.0-2.0	.28	.49			
391:												
Aycab-----	0-2	3-5	1.40-1.60	42.00-141.0	0.05-0.07	0.0-2.9	2.0-4.0	.05	.10	3	4	86
	2-24	10-18	1.45-1.65	14.00-42.00	0.07-0.09	0.0-2.9	1.0-2.0	.10	.17			
	24-28	---	---	0.01-0.42	---	---	---	---	---			
Rock Outcrop---	---	---	---	---	---	---	---	---	---	---	---	
403:												
Orovada-----	0-8	5-10	1.35-1.50	14.00-42.00	0.13-0.15	0.0-2.9	0.9-2.0	.43	.43	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.49			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
406:												
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.9-2.0	.49	.49	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.49			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
407:												
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.18-0.20	0.0-2.9	0.9-2.0	.49	.49	5	5	56
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.49			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
409:												
Orovada-----	0-8	5-10	1.35-1.50	14.00-42.00	0.13-0.15	0.0-2.9	0.9-2.0	.43	.43	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	2	134
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			
410:												
Bliss-----	0-4	3-8	1.40-1.60	42.00-141.0	0.09-0.10	0.0-2.9	1.0-2.0	.32	.32	2	2	134
	4-22	8-16	1.35-1.55	4.00-14.00	0.15-0.20	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.55	4.00-14.00	0.14-0.19	0.0-2.9	0.0-0.5	.55	.64			
	28-60	---	---	0.01-0.42	---	---	0.0-0.5	---	---			
Orovada-----	0-2	3-10	1.40-1.60	42.00-141.0	0.09-0.10	0.0-2.9	0.5-1.0	.32	.37	5	2	134
	2-26	5-18	1.40-1.60	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.55			
	26-60	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
411:												
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.9-2.0	.49	.49	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
Dugchip-----	0-5	10-18	1.40-1.55	14.00-42.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	5-18	8-18	1.50-1.70	1.40-4.00	0.14-0.18	0.0-2.9	0.0-0.5	.49	.55			
	18-31	25-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.32	.37			
	31-39	---	---	0.00-0.01	---	---	---	---	---			
	39-60	2-8	1.65-1.85	1.40-4.00	0.03-0.05	0.0-2.9	0.0-0.5	.02	.20			
417:												
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.9-2.0	.49	.49	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.49			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.8-2.0	.32	.37	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
420:												
Bubus-----	0-5	10-15	1.40-1.55	4.00-14.00	0.15-0.21	0.0-2.9	0.0-0.5	.49	.64	5	5	56
	5-63	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.49			
431:												
Preble-----	0-10	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43	4	3	86
	10-55	8-15	1.60-1.75	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	55-65	0-5	1.50-1.65	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.17			
432:												
Preble-----	0-10	10-15	1.40-1.55	4.00-14.00	0.19-0.21	0.0-2.9	0.5-1.0	.43	.43	4	5	86
	10-55	8-15	1.60-1.75	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	55-65	0-5	1.50-1.65	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.17			
Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.05-0.07	0.0-2.9	0.5-1.0	.28	.28	5	1	250
	7-60	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.24	.24			
Playas-----	0-6	35-40	1.50-1.70	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	---	5	4L	86
	6-60	35-70	1.60-1.80	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
435: Preble-----	0-10	10-15	1.40-1.55	4.00-14.00	0.19-0.21	0.0-2.9	0.5-1.0	.43	.43	4	5	56
	10-55	8-15	1.60-1.75	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	55-65	0-5	1.50-1.65	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.17			
436: Preble-----	0-10	10-15	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.5-1.0	.37	.37	4	3	86
	10-55	8-15	1.60-1.75	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	55-65	0-5	1.50-1.65	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.17			
Valmy-----	0-3	5-15	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.5-1.0	.32	.37	4	3	86
	3-43	5-15	1.40-1.55	14.00-42.00	0.09-0.13	0.0-2.9	0.0-0.5	.28	.37			
	43-66	1-5	1.30-1.50	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.05	.15			
Valmy-----	0-3	5-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.0-0.5	.43	.49	5	3	86
	3-60	5-15	1.40-1.60	14.00-42.00	0.08-0.14	0.0-2.9	0.0-0.5	.28	.43			
437: Preble-----	0-10	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43	4	3	86
	10-55	8-15	1.60-1.75	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	55-65	0-5	1.50-1.65	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.17			
Davey-----	0-5	2-5	1.45-1.65	42.00-141.0	0.09-0.10	0.0-2.9	0.5-1.0	.20	.20	5	2	134
	5-14	5-10	1.40-1.60	14.00-42.00	0.11-0.15	0.0-2.9	0.5-1.0	.28	.28			
	14-67	2-5	1.50-1.65	42.00-141.0	0.06-0.10	0.0-2.9	0.0-0.5	.20	.24			
438: Preble-----	0-10	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43	4	3	86
	10-55	8-15	1.60-1.75	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	55-65	0-5	1.50-1.65	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.17			
Subus-----	0-5	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.64	5	3	86
	5-63	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.49			
440: Prideen-----	0-7	8-18	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.5-1.0	.49	.49	5	5	56
	7-46	20-35	1.35-1.55	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
	46-61	35-50	1.35-1.50	0.42-1.40	0.16-0.18	6.0-8.9	0.0-0.5	.43	.43			
441: Prideen-----	0-7	8-18	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.5-1.0	.49	.49	5	5	56
	7-46	20-35	1.35-1.55	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
	46-61	35-50	1.35-1.50	0.42-1.40	0.16-0.18	6.0-8.9	0.0-0.5	.43	.43			
452: Kingsriver-----	0-12	10-18	1.20-1.40	4.00-14.00	0.16-0.20	0.0-2.9	2.0-5.0	.32	.32	5	5	56
	12-60	8-18	1.45-1.60	4.00-14.00	0.12-0.16	0.0-2.9	0.5-2.0	.32	.32			
453: Kingsriver-----	0-12	10-18	1.20-1.40	4.00-14.00	0.16-0.20	0.0-2.9	2.0-5.0	.32	.32	5	5	56
	12-60	8-18	1.45-1.60	4.00-14.00	0.12-0.16	0.0-2.9	0.5-4.0	.32	.32			
Kingsriver-----	---	---	---	---	---	---	---	---	---	-	---	---
Typic Fluvaquents----	---	---	---	---	---	---	---	---	---	-	---	---

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
460: Rad-----	0-6	0-5	1.55-1.70	42.00-141.0	0.08-0.11	0.0-2.9	0.5-0.7	.20	.20	5	2	134
	6-20	5-10	1.30-1.50	4.00-14.00	0.15-0.21	0.0-2.9	0.5-1.0	.43	.43			
	20-39	5-10	1.30-1.50	0.42-1.40	0.17-0.21	0.0-2.9	0.0-0.5	.43	.43			
	39-60	5-10	1.30-1.50	4.00-14.00	0.13-0.21	0.0-2.9	0.0-0.5	.43	.43			
461: Rad-----	0-6	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-2.0	.37	.37	5	3	86
	6-20	5-10	1.30-1.50	4.00-14.00	0.15-0.21	0.0-2.9	0.5-1.0	.43	.43			
	20-39	5-10	1.30-1.50	0.42-1.40	0.17-0.21	0.0-2.9	0.0-0.5	.43	.43			
	39-60	5-10	1.30-1.50	4.00-14.00	0.13-0.21	0.0-2.9	0.0-0.5	.43	.43			
462: Rad-----	0-6	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-2.0	.37	.37	5	3	86
	6-20	5-10	1.30-1.50	4.00-14.00	0.15-0.21	0.0-2.9	0.5-1.0	.43	.43			
	20-39	5-10	1.30-1.50	0.42-1.40	0.17-0.21	0.0-2.9	0.0-0.5	.43	.43			
	39-60	5-10	1.30-1.50	4.00-14.00	0.13-0.21	0.0-2.9	0.0-0.5	.43	.43			
470: Raglan-----	0-6	10-20	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.5-1.0	.55	.55	5	5	56
	6-14	10-25	1.30-1.50	4.00-14.00	0.19-0.21	3.0-5.9	0.0-0.5	.55	.55			
	14-64	18-25	1.40-1.60	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
471: Raglan-----	0-6	10-20	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.5-1.0	.55	.55	5	5	56
	6-14	10-25	1.30-1.50	4.00-14.00	0.19-0.21	3.0-5.9	0.0-0.5	.55	.55			
	14-60	18-25	1.40-1.60	1.40-4.00	0.15-0.18	3.0-5.9	0.0-0.5	.43	.43			
474: Raglan-----	0-6	10-20	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.5-1.0	.55	.55	5	5	56
	6-14	10-25	1.30-1.50	4.00-14.00	0.19-0.21	3.0-5.9	0.0-0.5	.55	.55			
	14-60	18-25	1.40-1.60	1.40-4.00	0.15-0.18	3.0-5.9	0.0-0.5	.43	.43			
Kleck-----	0-3	8-18	1.40-1.60	4.00-14.00	0.15-0.17	0.0-2.9	0.8-2.0	.49	.49	2	3	86
	3-15	18-35	1.45-1.60	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.6	.43	.43			
	15-60	---	---	0.01-0.42	---	---	---	---	---			
480: Rebel-----	0-4	10-18	1.35-1.50	14.00-42.00	0.16-0.18	0.0-2.9	0.7-2.0	.49	.49	5	5	56
	4-60	10-18	1.35-1.55	14.00-42.00	0.13-0.16	0.0-2.9	0.0-0.6	.20	.24			
487: Rebel-----	0-18	10-15	1.35-1.50	14.00-42.00	0.15-0.18	0.0-2.9	0.7-1.0	.28	.28	5	3	86
	18-60	10-18	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.0-0.6	.20	.24			
490: Rose Creek-----	0-10	10-15	1.30-1.45	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.37	.37	5	5	56
	10-60	10-18	1.50-1.70	14.00-42.00	0.13-0.15	0.0-2.9	0.5-2.0	.28	.37			
Humboldt-----	---	---	---	---	---	---	---	---	---	-	---	---
491: Rose Creek-----	0-10	8-18	1.30-1.45	4.00-14.00	0.19-0.21	0.0-2.9	1.0-2.0	.43	.43	5	5	56
	10-60	8-18	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.5-2.0	.28	.32			
492: Rose Creek-----	0-10	30-40	1.20-1.35	1.40-4.00	0.19-0.21	3.0-5.9	1.0-2.0	.37	.37	5	4	86
	10-60	10-18	1.50-1.70	14.00-42.00	0.13-0.15	0.0-2.9	0.5-2.0	.28	.37			
Humboldt-----	---	---	---	---	---	---	---	---	---	-	---	---

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
501: Enko-----	0-6	3-6	1.40-1.55	42.00-141.0	0.10-0.13	0.0-2.9	0.6-1.0	.55	.64	5	2	134
	6-28	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.5-1.0	.37	.37			
	28-60	10-18	1.65-1.75	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.24	.24			
502: Enko-----	0-6	3-6	1.40-1.55	42.00-141.0	0.10-0.13	0.0-2.9	0.6-1.0	.55	.64	5	2	134
	6-28	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.5-1.0	.37	.37			
	28-60	10-18	1.65-1.75	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.24	.24			
Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	1	250
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			
503: Enko-----	0-6	10-18	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	5	3	86
	6-12	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.8-2.0	.43	.49			
	12-28	10-18	1.55-1.65	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
	28-37	10-18	1.65-1.70	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.37	.43			
	37-60	10-18	1.40-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
504: Enko-----	0-6	10-18	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	5	3	86
	6-12	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.8-2.0	.43	.49			
	12-28	10-18	1.55-1.65	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
	28-37	10-18	1.65-1.70	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.37	.43			
	37-60	10-18	1.40-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			
505: Enko-----	0-28	10-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.8-2.0	.55	.55	4	3	86
	28-52	10-18	1.45-1.65	0.42-1.40	0.12-0.18	0.0-2.9	0.0-0.5	.37	.37			
	52-60	2-10	1.55-1.75	141.0-705.0	0.03-0.04	0.0-2.9	0.0-0.5	.05	.24			
507: Enko-----	0-6	10-18	1.35-1.45	14.00-42.00	0.11-0.15	0.0-2.9	1.0-2.0	.43	.49	5	3	86
	6-12	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.5-1.0	.43	.49			
	12-28	10-18	1.55-1.65	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
	28-37	10-18	1.65-1.70	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.37	.43			
	37-60	10-18	1.40-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.9-2.0	.49	.49	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			
511: Mazuma-----	0-6	10-14	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.43	.49	5	3	86
	6-60	5-15	1.45-1.65	14.00-42.00	0.10-0.14	0.0-2.9	0.0-0.5	.24	.55			
Trocken-----	0-5	5-15	1.40-1.55	4.00-14.00	0.09-0.11	0.0-2.9	0.0-0.5	.32	.55	5	4	86
	5-60	8-18	1.50-1.70	4.00-14.00	0.05-0.08	0.0-2.9	0.0-0.5	.17	.32			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
520: Lunder-----	0-9	18-27	1.30-1.45	4.00-14.00	0.13-0.15	3.0-5.9	1.0-3.0	.24	.43	1	7	38
	9-19	50-60	1.25-1.45	0.42-1.40	0.11-0.14	6.0-8.9	0.0-0.5	.24	.37			
	19-60	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-5	18-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.28	.55	1	7	38
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
522: Lunder-----	0-9	27-35	1.30-1.45	1.40-4.00	0.04-0.08	0.0-2.9	1.0-3.0	.02	.20	1	8	0
	9-19	50-60	1.25-1.45	0.42-1.40	0.11-0.14	6.0-8.9	0.0-0.5	.24	.37			
	19-60	---	---	0.00-0.01	---	---	---	---	---			
Runnton-----	0-6	12-18	1.20-1.35	4.00-14.00	0.11-0.15	0.0-2.9	1.0-2.0	.49	.55	2	6	48
	6-12	20-30	1.25-1.45	1.40-4.00	0.15-0.21	3.0-5.9	0.0-1.0	.49	.55			
	12-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.0-0.5	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	---	---	0.42-14.00	---	---	---	---	---			
530: Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			
532: Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			
Enko-----	0-6	10-18	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	5	3	86
	6-12	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.8-2.0	.43	.49			
	12-28	10-18	1.55-1.65	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
	28-37	10-18	1.65-1.70	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.37	.43			
	37-60	10-18	1.40-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
Valmy-----	0-3	5-15	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.5-1.0	.32	.37	4	3	86
	3-43	5-15	1.40-1.55	14.00-42.00	0.09-0.13	0.0-2.9	0.0-0.5	.28	.37			
	43-66	1-5	1.30-1.50	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.05	.15			
533: Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			
Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.12-0.14	0.0-2.9	0.8-2.0	.32	.37	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink-swell potential Pct	Organic matter Pct	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
534: Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			
Puett-----	0-5	8-15	1.30-1.50	14.00-42.00	0.08-0.10	0.0-2.9	0.5-1.0	.15	.43	2	7	38
	5-10	5-10	1.35-1.55	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.15	.24			
	10-14	---	---	0.01-0.42	---	---	---	---	---			
536: Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			
Enko-----	0-6	10-18	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	5	3	86
	6-12	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.8-2.0	.43	.49			
	12-28	10-18	1.55-1.65	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
	28-37	10-18	1.65-1.70	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.37	.43			
	37-60	10-18	1.40-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
Dugchip-----	0-5	10-18	1.40-1.55	14.00-42.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	5-18	8-18	1.50-1.70	1.40-4.00	0.14-0.18	0.0-2.9	0.0-0.5	.49	.55			
	18-31	25-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.32	.37			
	31-39	---	---	0.00-0.01	---	---	---	---	---			
	39-60	2-8	1.65-1.85	1.40-4.00	0.03-0.05	0.0-2.9	0.0-0.5	.02	.20			
537: Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			
Bliss-----	0-4	8-18	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.55	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			
Genaw-----	0-5	12-22	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	1.0-2.0	.24	.43	2	6	48
	5-10	18-30	1.25-1.45	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.24	.43			
	10-18	15-24	1.35-1.55	4.00-14.00	0.09-0.14	0.0-2.9	0.0-0.5	.15	.43			
	18-22	---	---	0.00-0.01	---	---	---	---	---			
543: Pumper-----	0-4	10-18	1.40-1.60	4.00-14.00	0.16-0.20	0.0-2.9	0.0-0.5	.55	.64	2	3	86
	4-11	12-20	1.40-1.60	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.49	.55			
	11-18	8-15	1.40-1.60	14.00-42.00	0.04-0.09	0.0-2.9	0.0-0.5	.10	.55			
	18-60	0-5	1.60-1.75	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
544:												
Pumper-----	0-4	8-18	1.40-1.60	14.00-42.00	0.14-0.17	0.0-2.9	0.0-0.5	.28	.37	2	4	86
	4-11	12-20	1.40-1.60	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.49	.55			
	11-18	8-15	1.40-1.60	14.00-42.00	0.04-0.09	0.0-2.9	0.0-0.5	.10	.55			
	18-60	0-5	1.60-1.75	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
Weso-----	0-5	5-18	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.49	.49	4	3	86
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			
545:												
Dun Glen-----	0-6	10-15	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.32	.32	5	3	86
	6-23	11-16	1.35-1.55	4.00-14.00	0.15-0.21	0.0-2.9	0.0-0.5	.43	.43			
	23-60	9-14	1.35-1.55	4.00-14.00	0.11-0.17	0.0-2.9	0.0-0.5	.32	.32			
Pumper-----	0-4	8-18	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.0-0.5	.28	.32	2	3	86
	4-11	12-20	1.40-1.60	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.49	.55			
	11-18	8-15	1.40-1.60	14.00-42.00	0.04-0.09	0.0-2.9	0.0-0.5	.10	.55			
	18-60	0-5	1.60-1.75	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
551:												
Ninemile-----	0-2	10-20	1.15-1.35	4.00-14.00	0.07-0.12	0.0-2.9	1.0-3.0	.15	.43	1	7	38
	2-14	40-60	1.20-1.40	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.20	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Carstump-----	0-2	12-20	1.25-1.45	4.00-14.00	0.14-0.17	0.0-2.9	1.0-3.0	.28	.49	2	6	48
	2-9	15-25	1.20-1.40	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.28	.49			
	9-28	40-55	1.20-1.40	0.42-1.40	0.13-0.15	3.0-5.9	0.0-0.5	.20	.37			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
552:												
Ninemile-----	0-2	20-27	1.35-1.50	4.00-14.00	0.13-0.15	3.0-5.9	1.0-2.0	.28	.49	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.28	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Ninemile-----	0-2	20-27	1.35-1.50	4.00-14.00	0.13-0.15	3.0-5.9	1.0-2.0	.28	.49	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.28	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Vanwyper-----	0-7	18-25	1.10-1.25	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.17	.43	2	7	38
	7-27	35-55	1.30-1.50	0.42-1.40	0.07-0.10	3.0-5.9	0.5-1.0	.10	.43			
	27-31	---	---	0.00-0.01	---	---	---	---	---			
553:												
Ninemile-----	0-2	20-27	1.35-1.50	4.00-14.00	0.13-0.15	3.0-5.9	1.0-2.0	.28	.49	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.28	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Ninemile-----	0-2	20-27	1.35-1.50	4.00-14.00	0.13-0.15	3.0-5.9	1.0-2.0	.28	.49	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.28	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Tusk-----	0-13	10-27	1.15-1.30	4.00-14.00	0.12-0.14	0.0-2.9	2.0-4.0	.24	.43	4	6	48
	13-40	27-35	1.20-1.40	1.40-4.00	0.15-0.17	3.0-5.9	1.0-3.0	.32	.55			
	40-60	20-35	1.30-1.50	4.00-14.00	0.05-0.06	0.0-2.9	0.5-1.0	.10	.49			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
555: Ninemile-----	0-2 2-14 14-18	10-20 40-60 ---	1.15-1.35 1.20-1.40 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.07-0.12 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-3.0 1.0-2.0 ---	.15 .20 ---	.43 .37 ---	1	7	38
Tusel-----	0-22 22-46 46-50	10-20 25-35 ---	1.20-1.40 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.15 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	2.0-5.0 0.5-2.0 ---	.20 .20 ---	.37 .43 ---	3	6	48
Alyan-----	0-17 17-39 39-43	18-27 40-55 ---	1.10-1.25 1.15-1.35 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.07-0.10 0.12-0.14 ---	0.0-2.9 6.0-8.9 ---	2.0-3.0 0.5-1.0 ---	.10 .15 ---	.32 .28 ---	2	7	38
557: Ninemile-----	0-2 2-14 14-24	15-25 40-60 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.08-0.11 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	2.0-4.0 1.0-3.0 ---	.15 .28 ---	.55 .37 ---	1	7	38
558: Ninemile-----	0-2 2-14 14-18	10-20 40-60 ---	1.15-1.35 1.20-1.40 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.07-0.12 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-3.0 1.0-2.0 ---	.15 .20 ---	.43 .37 ---	1	7	38
Anawalt-----	0-2 2-16 16-20	18-27 35-60 ---	1.30-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.06-0.10 0.11-0.17 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 0.5-1.0 ---	.10 .28 ---	.43 .43 ---	1	7	38
Vanwyper-----	0-7 7-27 27-31	18-25 35-55 ---	1.10-1.25 1.30-1.50 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.09-0.12 0.07-0.10 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.17 .10 ---	.43 .43 ---	2	7	38
559: Ninemile-----	0-2 2-14 14-18	20-27 40-60 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.13-0.15 0.14-0.16 ---	3.0-5.9 6.0-8.9 ---	1.0-2.0 1.0-2.0 ---	.28 .28 ---	.49 .37 ---	1	7	38
Devada-----	0-8 8-17 17-27	18-25 40-60 ---	1.30-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.10-0.15 0.10-0.16 ---	3.0-5.9 6.0-8.9 ---	1.0-3.0 0.5-2.0 ---	.28 .15 ---	.49 .43 ---	1	7	38
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
Fluvaquentic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
561: Sonoma-----	0-6 6-60	20-27 25-35	1.35-1.50 1.35-1.50	4.00-14.00 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	0.5-1.0 0.5-1.0	.43 .37	.43 .37	5	4L	86
Humboldt-----	---	---	---	---	---	---	---	---	---	-	---	---
562: Sonoma-----	0-6 6-60	27-35 25-35	1.35-1.50 1.35-1.50	0.42-1.40 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	0.5-1.0 0.0-0.5	.37 .37	.37 .37	5	4L	86
Humboldt-----	---	---	---	---	---	---	---	---	---	-	---	---
563: Sonoma-----	0-6 6-60	27-35 25-35	1.35-1.50 1.35-1.50	1.40-4.00 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	0.5-1.0 0.5-1.0	.37 .37	.37 .37	5	4L	86

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
564: Sonoma-----	0-6 6-60	20-27 25-35	1.35-1.50 1.35-1.50	4.00-14.00 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	1.0-2.0 0.5-2.0	.43 .37	.43 .37	5	4L	86
566: Sonoma-----	0-6 6-60	20-27 25-35	1.35-1.50 1.35-1.50	4.00-14.00 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	0.5-1.0 0.5-1.0	.43 .37	.43 .37	5	4L	86
Paranat-----	0-19 19-60	18-27 18-35	1.05-1.20 1.10-1.25	1.40-4.00 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	1.0-3.0 0.5-2.0	.55 .49	.55 .49	5	4L	86
567: Sonoma-----	0-6 6-60	27-35 25-35	1.35-1.50 1.35-1.50	0.42-1.40 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	0.5-1.0 0.0-0.5	.37 .37	.37 .37	5	4L	86
Humboldt-----	---	---	---	---	---	---	---	---	---	-	---	---
573: Spinlin-----	0-6 6-36 36-46	18-25 45-60 ---	1.15-1.25 1.10-1.15 ---	4.00-14.00 0.42-1.40 0.01-0.42	0.10-0.12 0.11-0.13 ---	0.0-2.9 6.0-8.9 ---	1.0-3.0 0.5-2.0 ---	.15 .10 ---	.49 .37 ---	3	7	38
Harcany-----	0-4 4-18 18-72	7-10 5-10 10-15	1.20-1.40 1.20-1.40 1.30-1.50	4.00-14.00 4.00-14.00 14.00-42.00	0.10-0.12 0.16-0.18 0.10-0.12	0.0-2.9 0.0-2.9 0.0-2.9	3.0-5.0 1.0-3.0 0.5-2.0	.20 .15 .10	.43 .49 .32	5	7	38
Hackwood-----	0-32 32-60	18-27 18-27	1.10-1.25 1.25-1.40	4.00-14.00 4.00-14.00	0.16-0.21 0.10-0.17	3.0-5.9 3.0-5.9	2.0-4.0 1.0-2.0	.37 .28	.43 .49	5	6	48
Cumelic Haplaquolls---	---	---	---	---	---	---	---	---	---	-	---	---
574: Spinlin-----	0-6 6-36 36-46	18-25 45-60 ---	1.15-1.25 1.10-1.15 ---	4.00-14.00 0.42-1.40 0.01-0.42	0.10-0.12 0.11-0.13 ---	0.0-2.9 6.0-8.9 ---	1.0-3.0 0.5-2.0 ---	.15 .10 ---	.49 .37 ---	3	7	38
Hackwood-----	0-32 32-60	18-27 18-27	1.10-1.25 1.25-1.40	4.00-14.00 4.00-14.00	0.16-0.21 0.10-0.17	3.0-5.9 3.0-5.9	2.0-4.0 1.0-2.0	.37 .28	.43 .49	5	6	48
Tusel-----	0-22 22-46 46-50	10-20 25-35 ---	1.20-1.40 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.15 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	2.0-5.0 0.5-2.0 ---	.20 .20 ---	.37 .43 ---	3	6	48
580: Sumine-----	0-6 6-28 28-38	10-20 25-35 ---	1.20-1.40 1.40-1.60 ---	4.00-14.00 4.00-14.00 0.00-0.01	0.11-0.13 0.10-0.13 ---	0.0-2.9 0.0-2.9 ---	2.0-4.0 0.5-3.0 ---	.24 .15 ---	.43 .55 ---	2	6	48
Ninemile-----	0-2 2-14 14-18	20-27 40-60 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.13-0.15 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 1.0-2.0 ---	.28 .28 ---	.49 .37 ---	1	7	38
Softscrabble---	0-8 8-60	10-20 27-35	1.20-1.40 1.25-1.45	4.00-14.00 0.42-1.40	0.14-0.16 0.10-0.13	0.0-2.9 0.0-2.9	1.0-3.0 1.0-2.0	.20 .10	.37 .37	5	6	48
581: Sumine-----	0-6 6-28 28-38	10-20 25-35 ---	1.20-1.40 1.40-1.60 ---	4.00-14.00 4.00-14.00 0.00-0.01	0.08-0.11 0.10-0.13 ---	0.0-2.9 0.0-2.9 ---	2.0-4.0 0.5-3.0 ---	.15 .15 ---	.43 .55 ---	2	7	38

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Gosumi-----	0-8	10-15	1.25-1.40	4.00-14.00	0.16-0.18	0.0-2.9	2.0-4.0	.37	.55	3	6	48
	8-32	35-50	1.25-1.45	0.01-0.42	0.10-0.14	3.0-5.9	0.5-2.0	.10	.28			
	32-42	10-15	1.35-1.55	14.00-42.00	0.07-0.09	0.0-2.9	0.5-1.0	.20	.32			
	42-50	10-15	1.35-1.55	14.00-42.00	0.05-0.07	0.0-2.9	0.5-1.0	.15	.32			
	50-60	---	---	---	0.00-0.01	---	---	---	---			
Nomara-----	0-4	12-18	1.25-1.40	4.00-14.00	0.15-0.19	0.0-2.9	2.0-4.0	.28	.43	2	6	48
	4-19	12-18	1.25-1.40	4.00-14.00	0.18-0.20	0.0-2.9	2.0-4.0	.32	.43			
	19-40	20-35	1.30-1.50	1.40-4.00	0.07-0.10	0.0-2.9	1.0-2.0	.10	.49			
	40-44	---	---	---	0.00-0.01	---	---	---	---			
582: Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.09-0.12	0.0-2.9	2.0-4.0	.17	.43	2	7	38
	6-28	25-35	1.40-1.60	4.00-14.00	0.08-0.12	0.0-2.9	0.5-2.0	.15	.55			
	28-32	---	---	---	0.00-0.01	---	---	---	---			
Anawalt-----	0-2	18-27	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-2.0	.10	.43	1	7	38
	2-16	35-60	1.25-1.45	0.42-1.40	0.11-0.17	6.0-8.9	0.5-1.0	.28	.43			
	16-20	---	---	---	0.00-0.01	---	---	---	---			
Ninemile-----	0-2	10-20	1.15-1.35	4.00-14.00	0.07-0.12	0.0-2.9	1.0-3.0	.15	.43	1	7	38
	2-14	40-60	1.20-1.40	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.20	.37			
	14-18	---	---	---	0.00-0.01	---	---	---	---			
583: Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.15	.43	2	7	38
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-38	---	---	---	0.00-0.01	---	---	---	---			
Gosumi-----	0-8	10-18	1.25-1.40	4.00-14.00	0.08-0.12	0.0-2.9	2.0-4.0	.17	.43	3	7	38
	8-32	35-50	1.25-1.45	0.01-0.42	0.08-0.13	3.0-5.9	1.0-2.0	.10	.28			
	32-50	10-15	1.35-1.55	14.00-42.00	0.06-0.09	0.0-2.9	0.0-0.5	.15	.37			
	50-60	---	---	---	0.00-0.01	---	---	---	---			
Harcany-----	0-4	5-10	1.20-1.40	4.00-14.00	0.13-0.15	0.0-2.9	3.0-5.0	.24	.43	5	6	48
	4-18	5-10	1.20-1.40	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.15	.49			
	18-72	10-15	1.30-1.50	14.00-42.00	0.10-0.12	0.0-2.9	0.5-2.0	.10	.32			
584: Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.11-0.13	0.0-2.9	2.0-4.0	.24	.43	2	6	48
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-38	---	---	---	0.00-0.01	---	---	---	---			
Ninemile-----	0-2	20-27	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	1.0-2.0	.28	.49	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.28	.37			
	14-18	---	---	---	0.00-0.01	---	---	---	---			
Tusel-----	0-22	10-20	1.20-1.40	4.00-14.00	0.09-0.15	0.0-2.9	2.0-5.0	.20	.37	3	6	48
	22-46	25-35	1.25-1.45	1.40-4.00	0.08-0.11	3.0-5.9	0.5-2.0	.20	.43			
	46-50	---	---	---	0.00-0.01	---	---	---	---			
585: Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.15	.43	2	7	38
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-38	---	---	---	0.00-0.01	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	---	---	
Ninemile-----	0-2	15-25	1.35-1.50	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.15	.55	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-3.0	.28	.37			
	14-24	---	---	---	0.00-0.01	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
586:												
Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.15	.43	2	7	38
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-38	---	---	0.00-0.01	---	---	---	---	---			
Rubble Land----	0-60	0-0	1.70-2.35	141.0-705.0	0.00-0.10	0.0-2.9	0.0-0.1	---	---	-	8	0
Reluctan-----	0-9	15-20	1.30-1.45	1.40-4.00	0.11-0.13	0.0-2.9	2.0-4.0	.10	.20	2	7	38
	9-38	25-35	1.40-1.60	1.40-4.00	0.12-0.17	3.0-5.9	0.5-2.0	.32	.43			
	38-42	---	---	0.00-0.01	---	---	---	---	---			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
587:												
Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.15	.43	2	7	38
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-38	---	---	0.00-0.01	---	---	---	---	---			
Gosumi-----	0-8	10-18	1.25-1.40	4.00-14.00	0.08-0.12	0.0-2.9	2.0-4.0	.17	.43	3	7	38
	8-32	35-50	1.25-1.45	0.01-0.42	0.08-0.13	3.0-5.9	1.0-2.0	.10	.28			
	32-50	10-15	1.35-1.55	14.00-42.00	0.06-0.09	0.0-2.9	0.0-0.5	.15	.37			
	50-60	---	---	0.00-0.01	---	---	---	---	---			
Harcany-----	0-4	5-10	1.20-1.40	4.00-14.00	0.13-0.15	0.0-2.9	3.0-5.0	.24	.43	5	6	48
	4-18	5-10	1.20-1.40	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.15	.49			
	18-72	10-15	1.30-1.50	14.00-42.00	0.10-0.12	0.0-2.9	0.5-2.0	.10	.32			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
588:												
Sumine-----	0-6	15-20	1.20-1.40	4.00-14.00	0.12-0.14	0.0-2.9	2.0-5.0	.28	.32	2	7	38
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
Cleavage-----	0-7	15-25	1.15-1.35	4.00-14.00	0.12-0.14	0.0-2.9	1.0-3.0	.10	.43	1	7	38
	7-16	20-35	1.25-1.45	1.40-4.00	0.10-0.12	0.0-2.9	1.0-2.0	.10	.55			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
Rubble Land----	0-60	0-0	1.70-2.35	141.0-705.0	0.00-0.10	0.0-2.9	0.0-0.1	---	---	-	8	0
589:												
Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.15	.43	2	7	38
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-38	---	---	0.00-0.01	---	---	---	---	---			
Ninemile-----	0-2	20-27	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	1.0-2.0	.28	.49	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.28	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Harcany-----	0-4	5-10	1.20-1.40	4.00-14.00	0.13-0.15	0.0-2.9	3.0-5.0	.24	.43	5	6	48
	4-18	5-10	1.20-1.40	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.15	.49			
	18-72	10-15	1.30-1.50	14.00-42.00	0.10-0.12	0.0-2.9	0.5-2.0	.10	.32			
590:												
Trunk-----	0-6	15-27	1.30-1.45	4.00-14.00	0.10-0.13	0.0-2.9	1.0-2.0	.15	.37	2	7	38
	6-36	35-50	1.30-1.45	0.01-0.42	0.10-0.13	6.0-8.9	0.5-2.0	.20	.37			
	36-40	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Madeline-----	0-10	20-27	1.20-1.35	4.00-14.00	0.10-0.12	3.0-5.9	2.0-3.0	.17	.32	1	7	38
	10-14	40-60	1.20-1.35	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.15	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
592: Trunk-----	0-6	15-27	1.30-1.45	4.00-14.00	0.12-0.15	0.0-2.9	1.0-2.0	.24	.43	2	7	38
	6-36	35-50	1.30-1.45	0.01-0.42	0.10-0.13	6.0-8.9	0.5-2.0	.20	.37			
	36-40	---	---	0.00-0.01	---	---	---	---	---			
Pocan-----	0-9	15-25	1.30-1.50	4.00-14.00	0.16-0.18	3.0-5.9	1.0-2.0	.43	.49	3	6	48
	9-20	18-25	1.35-1.55	4.00-14.00	0.11-0.17	3.0-5.9	0.0-0.6	.28	.43			
	20-43	18-25	1.35-1.55	4.00-14.00	0.11-0.13	3.0-5.9	0.0-0.6	.24	.43			
	43-47	---	---	0.00-0.01	---	---	---	---	---			
	47-51	---	---	0.00-0.01	---	---	---	---	---			
593: Trunk-----	0-6	10-20	1.35-1.50	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.43	.49	2	5	56
	6-36	35-50	1.30-1.45	0.01-0.42	0.10-0.13	6.0-8.9	0.5-2.0	.20	.37			
	36-40	---	---	0.00-0.01	---	---	---	---	---			
Vanwyper-----	0-7	18-25	1.10-1.25	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.17	.43	2	7	38
	7-27	35-55	1.30-1.50	0.42-1.40	0.07-0.10	3.0-5.9	0.5-1.0	.10	.43			
	27-31	---	---	0.00-0.01	---	---	---	---	---			
Panlee-----	0-10	8-15	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	0.8-2.0	.49	.55	3	3	86
	10-42	8-15	1.40-1.60	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.17	.64			
	42-45	---	---	0.00-0.01	---	---	---	---	---			
	45-55	---	---	0.00-0.01	---	---	---	---	---			
594: Burrita-----	0-7	12-18	1.15-1.35	4.00-14.00	0.13-0.16	0.0-2.9	0.8-2.0	.32	.43	1	6	48
	7-14	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-2.0	.10	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Trunk-----	0-6	10-20	1.35-1.50	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.43	.49	2	5	56
	6-36	35-50	1.30-1.45	0.01-0.42	0.10-0.13	6.0-8.9	0.5-2.0	.20	.37			
	36-40	---	---	0.00-0.01	---	---	---	---	---			
Quomus-----	0-9	8-18	1.40-1.55	14.00-42.00	0.15-0.17	0.0-2.9	1.0-3.0	.49	.55	5	3	86
	9-24	10-18	1.45-1.60	4.00-14.00	0.11-0.16	0.0-2.9	1.0-2.0	.49	.64			
	24-60	10-18	1.45-1.60	4.00-14.00	0.11-0.16	0.0-2.9	0.0-0.5	.49	.64			
596: Trunk-----	0-6	15-27	1.30-1.45	4.00-14.00	0.08-0.10	0.0-2.9	1.0-2.0	.10	.37	2	7	38
	6-36	35-50	1.30-1.45	0.01-0.42	0.10-0.13	6.0-8.9	0.5-2.0	.20	.37			
	36-40	---	---	0.00-0.01	---	---	---	---	---			
Burrita-----	0-7	12-18	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.8-2.0	.28	.43	1	6	48
	7-14	35-50	1.25-1.45	0.42-1.40	0.09-0.12	3.0-5.9	0.5-2.0	.10	.49			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
597: Trunk-----	0-6	10-20	1.35-1.50	4.00-14.00	0.12-0.15	0.0-2.9	1.0-2.0	.24	.43	2	6	48
	6-36	35-50	1.30-1.45	0.01-0.42	0.10-0.13	6.0-8.9	0.0-0.5	.20	.37			
	36-40	---	---	0.00-0.01	---	---	---	---	---			
Burrita-----	0-7	10-18	1.15-1.35	4.00-14.00	0.08-0.13	0.0-2.9	0.8-2.0	.15	.49	1	6	48
	7-14	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-2.0	.10	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Burrita-----	0-7	12-18	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.8-2.0	.28	.43	1	6	48
	7-14	35-50	1.25-1.45	0.42-1.40	0.09-0.12	3.0-5.9	0.5-2.0	.10	.49			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
600:												
Valmy-----	0-3	5-15	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.5-1.0	.32	.37	4	3	86
	3-43	5-15	1.40-1.55	14.00-42.00	0.09-0.13	0.0-2.9	0.0-0.5	.28	.37			
	43-66	1-5	1.30-1.50	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.05	.15			
603:												
Valmy-----	0-3	5-15	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.5-1.0	.32	.37	4	3	86
	3-43	5-15	1.40-1.55	14.00-42.00	0.09-0.13	0.0-2.9	0.0-0.5	.28	.37			
	43-66	1-5	1.30-1.50	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.05	.15			
Goldrun-----												
Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	1	250
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			
604:												
Valmy-----	0-3	5-15	1.35-1.55	14.00-42.00	0.13-0.17	0.0-2.9	0.5-1.0	.43	.49	4	3	86
	3-43	5-15	1.40-1.55	14.00-42.00	0.09-0.13	0.0-2.9	0.0-0.5	.28	.37			
	43-66	1-5	1.30-1.50	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.05	.15			
Bubus-----												
Bubus-----	0-5	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.64	5	3	86
	5-63	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.49			
Needle Peak----												
Needle Peak----	0-4	20-27	1.25-1.40	1.40-4.00	0.19-0.21	3.0-5.9	0.5-1.0	.55	.55	5	6	48
	4-60	20-35	1.30-1.45	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
606:												
Valmy-----	0-3	7-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.55	5	5	56
	3-60	5-15	1.40-1.55	14.00-42.00	0.09-0.13	0.0-2.9	0.0-0.5	.28	.37			
611:												
Weso-----	0-5	3-8	1.50-1.65	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.28	.28	4	2	134
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			
613:												
Weso-----	0-5	5-18	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.49	.49	4	3	86
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			
Orovada-----												
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.9-2.0	.49	.49	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
Shabliss-----												
Shabliss-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.32	.32	2	3	86
	4-15	5-10	1.35-1.55	4.00-14.00	0.16-0.20	0.0-2.9	0.5-1.0	.49	.49			
	15-20	---	---	0.42-1.40	---	---	---	---	---			
	20-52	5-10	1.50-1.70	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.43	.49			
	52-62	0-5	1.40-1.60	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.24	.28			
614:												
Weso-----	0-5	10-20	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.5-1.0	.55	.55	4	5	56
	5-26	8-18	1.55-1.70	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.6	.32	.37			
	26-60	5-15	1.55-1.70	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.6	.20	.28			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
615: Weso-----	0-5	5-18	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.49	.49	5	3	86
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-60	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
617: Weso-----	0-5	7-18	1.30-1.50	4.00-14.00	0.16-0.19	0.0-2.9	0.0-0.5	.55	.55	4	5	56
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			
618: Weso-----	0-5	5-18	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.49	.49	4	3	86
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			
Kelk-----	0-13	18-27	1.15-1.30	4.00-14.00	0.19-0.21	3.0-5.9	1.0-2.0	.55	.55	5	6	48
	13-60	18-27	1.40-1.60	0.42-1.40	0.19-0.21	3.0-5.9	0.5-1.0	.49	.49			
619: Weso-----	0-5	5-18	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.49	.49	4	3	86
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			
Rebel-----	0-4	10-18	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	0.6-2.0	.55	.55	5	3	86
	4-60	10-18	1.35-1.55	14.00-42.00	0.13-0.16	0.0-2.9	0.0-0.6	.20	.24			
620: Carstump-----	0-2	12-20	1.25-1.45	4.00-14.00	0.14-0.17	0.0-2.9	1.0-3.0	.28	.49	2	6	48
	2-9	15-25	1.20-1.40	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.28	.49			
	9-28	40-55	1.20-1.40	0.42-1.40	0.13-0.15	3.0-5.9	0.0-0.5	.20	.37			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.11-0.13	0.0-2.9	1.0-2.0	.24	.49	1	6	48
	4-14	25-35	1.30-1.50	1.40-4.00	0.08-0.11	3.0-5.9	0.5-1.0	.15	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Ninemile-----	0-2	15-25	1.35-1.50	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.15	.55	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-3.0	.28	.37			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
631: Burrita-----	0-7	12-18	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.8-2.0	.28	.43	1	6	48
	7-14	35-50	1.25-1.45	0.42-1.40	0.09-0.12	3.0-5.9	0.5-2.0	.10	.49			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
Panlee-----	0-10	8-15	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	0.8-2.0	.49	.55	3	3	86
	10-42	8-15	1.40-1.60	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.17	.64			
	42-45	---	---	0.00-0.01	---	---	---	---	---			
	45-55	---	---	0.00-0.01	---	---	---	---	---			
633: Burrita-----	0-7	10-18	1.15-1.35	4.00-14.00	0.08-0.13	0.0-2.9	0.8-2.0	.15	.49	1	7	38
	7-14	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-2.0	.10	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Midraw-----	0-4	18-25	1.20-1.40	4.00-14.00	0.14-0.16	3.0-5.9	1.0-2.0	.24	.43	1	7	38
	4-14	35-45	1.35-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
Clementine-----	---	---	---	---	---	---	---	---	---	-	---	---
634:												
Burrita-----	0-7	10-18	1.15-1.35	4.00-14.00	0.08-0.13	0.0-2.9	0.8-2.0	.15	.49	1	7	38
	7-14	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-2.0	.10	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-8	15-27	1.10-1.30	4.00-14.00	0.07-0.09	3.0-5.9	1.0-3.0	.15	.37	1	7	38
	8-17	40-60	1.20-1.40	0.42-1.40	0.14-0.16	6.0-8.9	0.8-2.0	.17	.32			
	17-21	---	---	0.00-0.01	---	---	---	---	---			
Zymans-----	0-4	15-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.20	.37	4	6	48
	4-37	45-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	0.5-2.0	.24	.28			
	37-56	35-60	1.25-1.45	0.42-1.40	0.14-0.21	6.0-8.9	0.0-0.5	.24	.43			
	56-60	---	---	0.01-0.42	---	---	---	---	---			
636:												
Burrita-----	0-7	12-18	1.35-1.50	4.00-14.00	0.08-0.10	0.0-2.9	0.8-2.0	.15	.49	1	7	38
	7-14	35-50	1.25-1.45	0.42-1.40	0.09-0.12	3.0-5.9	0.5-2.0	.10	.49			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
Rubble Land-----	0-60	0-0	1.70-2.35	141.0-705.0	0.00-0.10	0.0-2.9	0.0-0.1	---	---	-	8	0
Clementine-----	0-3	15-25	1.00-1.15	4.00-14.00	0.19-0.21	3.0-5.9	3.0-5.0	.49	.49	5	6	48
	3-60	25-35	1.15-1.35	1.40-4.00	0.19-0.21	3.0-5.9	1.0-4.0	.43	.43			
637:												
Burrita-----	0-7	12-18	1.35-1.50	4.00-14.00	0.08-0.10	0.0-2.9	0.8-2.0	.15	.49	1	7	38
	7-14	35-50	1.25-1.45	0.42-1.40	0.09-0.12	3.0-5.9	0.5-2.0	.10	.49			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
Dewar-----	0-5	10-18	1.15-1.25	4.00-14.00	0.14-0.19	0.0-2.9	0.8-2.0	.43	.64	1	6	48
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.0-0.5	.37	.64			
	15-31	---	---	0.00-0.01	---	---	---	---	---			
	31-60	---	---	0.01-0.42	---	---	---	---	---			
Burrita-----	0-7	12-18	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.8-2.0	.28	.43	1	6	48
	7-14	35-50	1.25-1.45	0.42-1.40	0.09-0.12	3.0-5.9	0.5-2.0	.10	.49			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
638:												
Burrita-----	0-7	10-18	1.15-1.35	14.00-42.00	0.03-0.05	0.0-2.9	0.8-2.0	.05	.43	1	8	0
	7-14	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-2.0	.10	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Soughe-----	0-4	10-20	1.30-1.45	1.40-4.00	0.05-0.07	0.0-2.9	1.0-2.0	.10	.32	1	7	38
	4-14	25-35	1.20-1.40	1.40-4.00	0.08-0.11	3.0-5.9	0.0-0.5	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Panlee-----	0-10	8-15	1.35-1.50	14.00-42.00	0.11-0.15	0.0-2.9	0.8-2.0	.28	.55	3	4	86
	10-42	8-15	1.40-1.60	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.17	.64			
	42-45	---	---	0.00-0.01	---	---	---	---	---			
	45-55	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
640: Clementine-----	0-3 3-60	15-25 25-35	1.00-1.15 1.15-1.35	4.00-14.00 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	3.0-5.0 1.0-4.0	.49 .43	.49 .43	5	6	48
641: Clementine-----	0-3 3-60	15-25 25-35	1.00-1.15 1.15-1.35	4.00-14.00 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	3.0-5.0 1.0-4.0	.49 .43	.49 .43	5	5	56
Paranat-----	0-19 19-60	18-27 18-35	1.05-1.20 1.10-1.25	1.40-4.00 1.40-4.00	0.20-0.22 0.19-0.22	3.0-5.9 3.0-5.9	1.0-3.0 1.0-2.0	.55 .49	.55 .49	5	4L	86
642: Clementine-----	0-3 3-44 44-60	15-25 27-35 25-33	1.00-1.15 1.15-1.35 1.25-1.45	4.00-14.00 1.40-4.00 1.40-4.00	0.19-0.21 0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9 3.0-5.9	3.0-5.0 1.0-5.0 0.5-1.0	.49 .43 .32	.49 .43 .32	5	6	48
Rose Creek-----	0-10 10-60	10-18 10-18	1.30-1.45 1.50-1.70	4.00-14.00 14.00-42.00	0.16-0.18 0.13-0.15	0.0-2.9 0.0-2.9	1.0-2.0 0.5-2.0	.37 .28	.37 .37	5	5	56
646: Clementine-----	0-3 3-44 44-60	15-25 27-35 25-33	1.00-1.15 1.15-1.35 1.25-1.45	4.00-14.00 1.40-4.00 1.40-4.00	0.19-0.21 0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9 3.0-5.9	3.0-5.0 1.0-5.0 0.5-1.0	.49 .43 .32	.49 .43 .32	5	6	48
Paranat-----	0-19 19-60	18-27 18-35	1.05-1.20 1.10-1.25	1.40-4.00 1.40-4.00	0.20-0.22 0.19-0.22	3.0-5.9 3.0-5.9	1.0-3.0 1.0-2.0	.55 .49	.55 .49	5	4L	86
651: Burrita-----	0-7 7-14 14-18	12-18 35-50 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.13-0.16 0.07-0.09 ---	0.0-2.9 3.0-5.9 ---	0.8-2.0 0.5-2.0 ---	.32 .10 ---	.43 .49 ---	1	6	48
Soughe-----	0-4 4-14 14-18	10-20 25-35 ---	1.30-1.45 1.20-1.40 ---	1.40-4.00 1.40-4.00 0.00-0.01	0.05-0.07 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.0-0.5 ---	.10 .15 ---	.32 .49 ---	1	7	38
Atlow-----	0-4 4-14 14-18	14-24 27-35 ---	1.15-1.35 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.07-0.10 0.08-0.10 ---	0.0-2.9 0.0-2.9 ---	1.0-2.0 0.5-1.0 ---	.15 .17 ---	.55 .43 ---	1	7	38
652: Burrita-----	0-7 7-14 14-18	12-18 35-50 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.13-0.16 0.07-0.09 ---	0.0-2.9 3.0-5.9 ---	0.8-2.0 0.5-2.0 ---	.32 .10 ---	.43 .49 ---	1	6	48
Havingdon-----	0-7 7-25 25-29	10-20 35-45 ---	1.35-1.50 1.30-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.13-0.15 0.07-0.09 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 --- ---	.28 .17 ---	.49 .49 ---	2	6	48
Reluctan-----	0-9 9-38 38-42	15-22 25-35 ---	1.15-1.35 1.35-1.55 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.11-0.14 0.12-0.15 ---	0.0-2.9 3.0-5.9 ---	2.0-4.0 0.5-2.0 ---	.24 .24 ---	.43 .43 ---	2	6	48
653: Burrita-----	0-7 7-14 14-24	12-18 35-50 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.13-0.15 0.09-0.12 ---	0.0-2.9 3.0-5.9 ---	0.8-2.0 0.5-2.0 ---	.28 .10 ---	.43 .49 ---	1	6	48
Vanwyper-----	0-7 7-27 27-31	18-25 35-55 ---	1.10-1.25 1.30-1.50 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.12-0.14 0.07-0.10 ---	3.0-5.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.20 .10 ---	.37 .43 ---	2	7	38

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
Havingdon-----	0-7 7-25 25-29	15-25 35-45 ---	1.35-1.50 1.30-1.45 ---	14.00-42.00 0.42-1.40 0.00-0.01	0.06-0.10 0.04-0.08 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.10 .05 ---	.49 .37 ---	2	7	38
654: Burrita-----	0-7 7-14 14-24	12-18 35-50 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.08-0.10 0.09-0.12 ---	0.0-2.9 3.0-5.9 ---	0.8-2.0 0.5-2.0 ---	.15 .10 ---	.49 .49 ---	1	7	38
Panlee-----	0-10 10-42 42-45 45-55	8-15 8-15 ---	1.35-1.50 1.40-1.60 ---	14.00-42.00 4.00-14.00 0.00-0.01	0.08-0.12 0.07-0.12 ---	0.0-2.9 0.0-2.9 ---	0.8-2.0 0.0-0.5 ---	.17 .17 ---	.64 .64 ---	3	5	56
Rock Outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
655: Soughe-----	0-4 4-14 14-18	8-18 25-35 ---	1.35-1.50 1.20-1.40 ---	14.00-42.00 1.40-4.00 0.00-0.01	0.03-0.05 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.0-0.5 ---	.05 .15 ---	.32 .49 ---	1	8	0
Hoot-----	0-6 6-15 15-19	14-20 25-35 ---	1.40-1.55 1.40-1.60 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.05-0.08 0.06-0.09 ---	0.0-2.9 0.0-2.9 ---	0.0-0.5 0.0-0.5 ---	.10 .10 ---	.37 .55 ---	1	7	38
657: Burrita-----	0-7 7-14 14-18	10-18 35-50 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.08-0.13 0.07-0.09 ---	0.0-2.9 3.0-5.9 ---	0.8-2.0 0.5-2.0 ---	.15 .10 ---	.49 .49 ---	1	7	38
Snowmore-----	0-2 2-15 15-21 21-24 24-28	15-20 20-30 25-35 ---	1.30-1.50 1.25-1.45 1.40-1.60 ---	4.00-14.00 1.40-4.00 1.40-4.00 0.00-0.01	0.15-0.17 0.17-0.19 0.17-0.19 ---	0.0-2.9 3.0-5.9 3.0-5.9 ---	1.0-2.0 0.5-2.0 0.5-1.0 ---	.32 .32 .24 ---	.37 .37 .32 ---	2	3	86
Rock Outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
658: Burrita-----	0-7 7-14 14-18	12-18 35-50 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.13-0.16 0.07-0.09 ---	0.0-2.9 3.0-5.9 ---	0.8-2.0 0.5-2.0 ---	.32 .10 ---	.43 .49 ---	1	6	48
Panlee-----	0-10 10-42 42-45 45-55	8-15 8-15 ---	1.35-1.50 1.40-1.60 ---	14.00-42.00 4.00-14.00 0.00-0.01	0.11-0.15 0.07-0.12 ---	0.0-2.9 0.0-2.9 ---	0.8-2.0 0.0-0.6 ---	.28 .17 ---	.55 .64 ---	3	4	86
Burrita-----	0-7 7-14 14-18	10-18 35-50 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.08-0.13 0.07-0.09 ---	0.0-2.9 3.0-5.9 ---	0.8-2.0 0.5-2.0 ---	.15 .10 ---	.49 .49 ---	1	7	38
660: Beoska-----	0-5 5-26 26-60	5-15 25-35 5-10	1.40-1.55 1.30-1.50 1.35-1.55	4.00-14.00 1.40-4.00 14.00-42.00	0.11-0.14 0.16-0.21 0.10-0.14	0.0-2.9 3.0-5.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5	.24 .49 .28	.43 .55 .43	4	4	86
Oxcorel-----	0-5 5-24 24-60	8-15 35-50 8-15	1.40-1.55 1.30-1.50 1.50-1.70	4.00-14.00 0.01-0.42 14.00-42.00	0.12-0.16 0.15-0.18 0.05-0.08	0.0-2.9 6.0-8.9 0.0-2.9	0.0-0.5 0.0-0.5 0.0-0.5	.28 .28 .10	.49 .32 .37	2	4	86

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Whirlo-----	0-14	7-10	1.30-1.50	4.00-14.00	0.10-0.14	0.0-2.9	0.0-0.5	.28	.49	5	4	86
	14-43	5-10	1.30-1.50	14.00-42.00	0.07-0.09	0.0-2.9	0.0-0.5	.15	.43			
	43-60	0-10	1.30-1.50	14.00-42.00	0.05-0.07	0.0-2.9	0.0-0.5	.15	.32			
661: Oxcorel-----	0-5	8-15	1.40-1.55	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.28	.49	2	4	86
	5-24	35-50	1.30-1.50	0.01-0.42	0.15-0.18	6.0-8.9	0.0-0.5	.28	.32			
	24-60	8-15	1.50-1.70	14.00-42.00	0.05-0.08	0.0-2.9	0.0-0.5	.10	.37			
Orovada-----	0-8	7-15	1.35-1.50	4.00-14.00	0.11-0.14	0.0-2.9	0.9-2.0	.37	.64	5	4	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.55			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.5-1.0	.43	.49			
663: Oxcorel-----	0-5	8-15	1.40-1.55	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.28	.49	2	4	86
	5-24	35-50	1.30-1.50	0.01-0.42	0.15-0.18	6.0-8.9	0.0-0.5	.28	.32			
	24-60	8-15	1.50-1.70	14.00-42.00	0.05-0.08	0.0-2.9	0.0-0.5	.10	.37			
Weso-----	0-5	5-18	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.49	.49	4	3	86
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			
Beoska-----	0-5	5-15	1.40-1.55	4.00-14.00	0.18-0.20	0.0-2.9	0.0-0.5	.49	.55	4	3	86
	5-26	25-35	1.30-1.50	1.40-4.00	0.16-0.21	3.0-5.9	0.0-0.5	.49	.55			
	26-60	5-15	1.35-1.55	14.00-42.00	0.10-0.14	0.0-2.9	0.0-0.5	.28	.32			
664: Oxcorel-----	0-5	8-15	1.40-1.55	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.28	.49	2	4	86
	5-24	35-50	1.30-1.50	0.01-0.42	0.15-0.18	6.0-8.9	0.0-0.5	.28	.32			
	24-60	8-15	1.50-1.70	14.00-42.00	0.05-0.08	0.0-2.9	0.0-0.5	.10	.37			
Golconda-----	0-13	10-17	1.30-1.45	1.40-4.00	0.19-0.21	0.0-2.9	0.5-1.0	.55	.55	3	5	56
	13-22	27-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.24	.37			
	22-26	---	---	0.42-1.40	---	---	---	---	---			
	26-60	---	---	0.42-14.00	---	---	---	---	---			
665: Oxcorel-----	0-5	5-15	1.40-1.55	14.00-42.00	0.12-0.15	0.0-2.9	0.0-0.7	.17	.37	2	4	86
	5-24	35-50	1.30-1.50	0.01-0.42	0.15-0.18	6.0-8.9	0.0-0.5	.28	.32			
	24-60	8-15	1.50-1.70	14.00-42.00	0.05-0.08	0.0-2.9	0.0-0.5	.10	.37			
Snapp-----	0-5	5-15	1.30-1.45	4.00-14.00	0.07-0.12	0.0-2.9	1.0-2.0	.15	.49	2	5	56
	5-21	35-60	1.25-1.45	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.6	.05	.24			
669: Oxcorel-----	0-5	12-20	1.30-1.40	4.00-14.00	0.16-0.18	0.0-2.9	0.0-0.5	.43	.49	2	3	86
	5-24	35-50	1.30-1.45	0.01-0.42	0.15-0.18	6.0-8.9	0.0-0.5	.28	.32			
	24-60	8-15	1.50-1.70	14.00-42.00	0.05-0.08	0.0-2.9	0.0-0.5	.10	.37			
Dewar-----	0-5	18-25	1.15-1.25	4.00-14.00	0.13-0.17	3.0-5.9	1.0-2.0	.37	.43	1	7	38
	5-15	27-35	1.20-1.35	1.40-4.00	0.12-0.16	3.0-5.9	0.5-1.0	.37	.43			
	15-60	---	---	0.00-0.01	---	---	---	---	---			
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.11-0.13	0.0-2.9	1.0-2.0	.24	.49	1	6	48
	4-14	25-35	1.35-1.50	4.00-14.00	0.11-0.13	3.0-5.9	0.5-2.0	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
670:												
Devada-----	0-5	14-18	1.35-1.55	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28	.49	1	4	86
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-5	14-18	1.35-1.55	14.00-42.00	0.06-0.11	0.0-2.9	1.0-3.0	.17	.49	1	5	56
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
Goosel-----	0-3	10-18	1.35-1.55	4.00-14.00	0.14-0.16	0.0-2.9	1.0-2.0	.43	.43	2	3	86
	3-13	18-26	1.35-1.55	1.40-4.00	0.15-0.19	3.0-5.9	0.0-0.5	.55	.55			
	13-21	35-60	1.20-1.40	0.42-1.40	0.15-0.20	6.0-8.9	0.0-0.5	.32	.37			
	21-25	12-25	1.50-1.70	4.00-14.00	0.08-0.10	0.0-2.9	0.0-0.5	.20	.37			
	25-26	---	---	0.00-0.01	---	---	---	---	---			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
671:												
Devada-----	0-5	18-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.28	.55	1	7	38
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
Burrita-----	0-7	10-18	1.15-1.35	4.00-14.00	0.08-0.13	0.0-2.9	0.8-2.0	.15	.49	1	7	38
	7-14	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-2.0	.10	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop---	---	---	---	---	---	---	---	---	---	-	---	---
Clementine---	---	---	---	---	---	---	---	---	---	-	---	---
673:												
Devada-----	0-8	18-25	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-3.0	.17	.55	1	7	38
	8-17	40-60	1.25-1.45	0.42-1.40	0.10-0.16	6.0-8.9	0.5-2.0	.15	.43			
	17-27	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-5	14-18	1.35-1.55	14.00-42.00	0.06-0.11	0.0-2.9	1.0-3.0	.17	.49	1	7	38
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
676:												
Devada-----	0-5	18-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.28	.55	1	7	38
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
Snowmore-----	0-2	15-20	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.32	.37	2	3	86
	2-15	20-30	1.25-1.45	1.40-4.00	0.17-0.19	3.0-5.9	0.5-2.0	.32	.37			
	15-21	25-35	1.40-1.60	1.40-4.00	0.17-0.19	3.0-5.9	0.5-1.0	.24	.32			
	21-24	---	---	0.00-0.01	---	---	---	---	---			
	24-28	---	---	0.00-0.01	---	---	---	---	---			
Midraw-----	0-4	18-25	1.20-1.40	4.00-14.00	0.14-0.16	3.0-5.9	1.0-2.0	.24	.43	1	7	38
	4-14	35-45	1.35-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
677:												
Devada-----	0-8	18-25	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-3.0	.17	.55	1	7	38
	8-17	40-60	1.25-1.45	0.42-1.40	0.10-0.16	6.0-8.9	0.5-2.0	.15	.43			
	17-27	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Ninemile-----	0-2	20-27	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	1.0-2.0	.28	.49	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.28	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Burrita-----	0-7	12-18	1.15-1.35	4.00-14.00	0.13-0.16	0.0-2.9	0.8-2.0	.32	.43	1	6	48
	7-14	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-2.0	.10	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
678:												
Devada-----	0-5	18-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.28	.55	1	7	38
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-8	10-18	1.30-1.50	14.00-42.00	0.04-0.07	0.0-2.9	1.0-3.0	.05	.32	1	8	0
	8-17	40-60	1.25-1.45	0.42-1.40	0.10-0.16	6.0-8.9	0.5-2.0	.15	.43			
	17-27	---	---	0.00-0.01	---	---	---	---	---			
Rubble Land-----	0-60	0-0	1.70-2.35	141.0-705.0	0.00-0.10	0.0-2.9	0.0-0.1	---	---	-	8	0
680:												
Soughe-----	0-4	10-20	1.30-1.45	1.40-4.00	0.05-0.07	0.0-2.9	1.0-2.0	.10	.32	1	7	38
	4-14	25-35	1.20-1.40	1.40-4.00	0.08-0.11	3.0-5.9	0.0-0.5	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Trunk-----	0-6	15-27	1.30-1.45	4.00-14.00	0.08-0.10	0.0-2.9	1.0-2.0	.10	.37	2	7	38
	6-36	35-50	1.30-1.45	0.01-0.42	0.10-0.13	6.0-8.9	0.5-2.0	.20	.37			
	36-40	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop-----	---	---	---	---	---	---	---	---	-	---	---	
690:												
Sodhouse-----	0-6	8-15	1.40-1.55	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.6	.43	.64	1	5	56
	6-11	8-15	1.40-1.55	4.00-14.00	0.11-0.16	0.0-2.9	0.0-0.5	.43	.55			
	11-19	8-15	1.40-1.55	4.00-14.00	0.10-0.13	0.0-2.9	0.0-0.5	.28	.49			
	19-42	---	---	0.00-0.01	---	---	---	---	---			
	42-60	5-12	1.45-1.65	14.00-42.00	0.03-0.06	0.0-2.9	0.0-0.5	.10	.28			
Golconda-----	0-13	10-17	1.35-1.50	1.40-4.00	0.15-0.17	0.0-2.9	0.5-1.0	.55	.64	3	3	86
	13-22	27-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.24	.37			
	22-26	---	---	0.42-1.40	---	---	---	---	---			
	26-60	---	---	0.42-14.00	---	---	---	---	---			
691:												
Sodhouse-----	0-6	10-18	1.40-1.55	4.00-14.00	0.18-0.21	0.0-2.9	0.0-0.5	.55	.55	1	4L	86
	6-19	10-18	1.40-1.55	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.43	.49			
	19-42	---	---	0.00-0.01	---	---	---	---	---			
	42-60	5-15	1.45-1.65	14.00-42.00	0.07-0.09	0.0-2.9	0.0-0.5	.15	.28			
Chiara-----	0-3	10-18	1.25-1.40	4.00-14.00	0.19-0.21	0.0-2.9	1.0-2.0	.55	.55	1	5	56
	3-14	10-18	1.35-1.55	4.00-14.00	0.16-0.19	0.0-2.9	0.5-1.0	.49	.49			
	14-60	---	---	0.00-0.01	---	---	---	---	---			
700:												
Atlow-----	0-4	15-25	1.15-1.35	4.00-14.00	0.06-0.08	0.0-2.9	1.0-2.0	.17	.55	1	7	38
	4-14	27-35	1.30-1.50	1.40-4.00	0.08-0.10	0.0-2.9	0.0-0.5	.17	.43			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Gowjai-----	0-11	8-18	1.40-1.60	14.00-42.00	0.14-0.17	0.0-2.9	1.0-2.0	.32	.64	3	4	86
	11-36	25-35	1.30-1.50	4.00-14.00	0.08-0.13	3.0-5.9	0.5-2.0	.17	.55			
	36-52	5-15	1.40-1.60	14.00-42.00	0.07-0.10	0.0-2.9	0.5-1.0	.20	.64			
	52-62	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
701: Atlow-----	0-4 4-14 14-18	15-25 27-35 ---	1.15-1.35 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.06-0.08 0.08-0.10 ---	0.0-2.9 0.0-2.9 ---	1.0-2.0 0.0-0.5 ---	.17 .17 ---	.55 .43 ---	1	7	38
Wiskan-----	0-11 11-26 26-30	10-20 25-35 ---	1.35-1.50 1.40-1.60 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.11 0.08-0.10 ---	0.0-2.9 0.0-2.9 ---	1.0-2.0 0.0-0.5 ---	.17 .15 ---	.55 .43 ---	2	7	38
704: Atlow-----	0-4 4-14 14-18	15-25 27-35 ---	1.15-1.35 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.06-0.08 0.08-0.10 ---	0.0-2.9 0.0-2.9 ---	1.0-2.0 0.0-0.5 ---	.17 .17 ---	.55 .43 ---	1	7	38
Hoot-----	0-6 6-15 15-19	14-20 25-35 ---	1.40-1.55 1.40-1.60 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.05-0.08 0.06-0.09 ---	0.0-2.9 0.0-2.9 ---	0.0-0.5 0.0-0.5 ---	.10 .10 ---	.37 .55 ---	1	7	38
Atlow-----	0-4 4-14 14-18	15-25 27-35 ---	1.15-1.35 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.06-0.08 0.08-0.10 ---	0.0-2.9 0.0-2.9 ---	1.0-2.0 0.0-0.5 ---	.17 .17 ---	.55 .43 ---	1	7	38
710: Xipe-----	0-4 4-24 24-60	18-27 18-35 0-5	1.15-1.30 1.25-1.45 1.50-1.70	4.00-14.00 1.40-4.00 141.0-705.0	0.19-0.21 0.19-0.21 0.03-0.07	3.0-5.9 3.0-5.9 0.0-2.9	3.0-5.0 2.0-4.0 1.0-2.0	.55 .49 .05	.55 .49 .10	3	6	48
Clamentine-----	---	---	---	---	---	---	---	---	---	-	---	---
720: Dewar-----	0-5 5-15 15-31 31-60	15-20 27-35 --- ---	1.15-1.35 1.20-1.40 --- ---	4.00-14.00 1.40-4.00 0.00-0.01 0.01-0.42	0.08-0.13 0.12-0.16 --- ---	0.0-2.9 3.0-5.9 --- ---	0.8-2.0 0.5-1.0 --- ---	.17 .37 --- ---	.64 .64 --- ---	1	7	38
Sodhouse-----	0-6 6-19 19-42 42-60	10-18 10-18 --- 5-15	1.40-1.55 1.40-1.55 --- 1.40-1.65	4.00-14.00 4.00-14.00 0.00-0.01 14.00-42.00	0.14-0.16 0.15-0.20 --- 0.07-0.09	0.0-2.9 0.0-2.9 --- 0.0-2.9	0.0-0.5 0.0-0.5 --- 0.0-0.5	.37 .43 --- .15	.64 .49 --- .28	1	5	56
721: Dewar-----	0-5 5-15 15-60	18-25 27-35 ---	1.15-1.25 1.20-1.35 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.13-0.17 0.12-0.16 ---	3.0-5.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.37 .37 ---	.43 .43 ---	1	7	38
Laped-----	0-7 7-15 15-21 21-25	14-22 27-35 --- ---	1.30-1.50 1.40-1.60 --- ---	4.00-14.00 1.40-4.00 0.00-0.01 0.00-0.01	0.10-0.13 0.13-0.15 --- ---	0.0-2.9 3.0-5.9 --- ---	0.0-0.5 0.0-0.5 --- ---	.15 .17 --- ---	.43 .32 --- ---	1	7	38
Orovada-----	0-8 8-26 26-61	10-15 5-18 5-18	1.35-1.50 1.40-1.55 1.40-1.60	4.00-14.00 4.00-14.00 4.00-14.00	0.15-0.17 0.15-0.17 0.14-0.16	0.0-2.9 0.0-2.9 0.0-2.9	0.9-2.0 0.5-1.0 0.0-0.5	.49 .43 .43	.49 .43 .49	5	3	86
722: Dewar-----	0-5 5-15 15-31 31-60	10-18 27-35 --- ---	1.20-1.40 1.20-1.40 --- ---	4.00-14.00 1.40-4.00 0.00-0.01 0.01-0.42	0.12-0.17 0.12-0.16 --- ---	0.0-2.9 3.0-5.9 --- ---	0.8-2.0 0.0-0.5 --- ---	.32 .37 --- ---	.64 .64 --- ---	1	4	86

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Burrita-----	0-7	12-18	1.15-1.35	4.00-14.00	0.13-0.16	0.0-2.9	0.8-2.0	.32	.43	1	6	48
	7-14	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-2.0	.10	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Flue-----	0-6	10-18	1.35-1.55	4.00-14.00	0.08-0.11	0.0-2.9	1.0-2.0	.20	.55	2	5	56
	6-13	10-20	1.40-1.60	1.40-4.00	0.17-0.21	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-8	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			
724: Dewar-----	0-5	10-18	1.15-1.25	4.00-14.00	0.14-0.19	0.0-2.9	0.8-2.0	.43	.64	1	6	48
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.0-0.5	.37	.64			
	15-31	---	---	0.00-0.01	---	---	---	---	---			
	31-60	---	---	0.01-0.42	---	---	---	---	---			
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.15	.43	1	7	38
	4-14	25-35	1.35-1.50	4.00-14.00	0.11-0.13	3.0-5.9	0.5-2.0	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Hoot-----	0-6	14-20	1.40-1.55	4.00-14.00	0.05-0.08	0.0-2.9	0.0-0.5	.10	.37	1	7	38
	6-15	25-35	1.40-1.60	1.40-4.00	0.06-0.09	0.0-2.9	0.0-0.5	.10	.55			
	15-19	---	---	0.00-0.01	---	---	---	---	---			
726: Dewar-----	0-5	10-18	1.15-1.25	4.00-14.00	0.15-0.21	0.0-2.9	0.8-2.0	.37	.64	1	6	48
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.0-0.5	.37	.64			
	15-31	---	---	0.00-0.01	---	---	---	---	---			
	31-60	---	---	0.01-0.42	---	---	---	---	---			
Dewar-----	0-5	10-18	1.20-1.40	4.00-14.00	0.12-0.17	0.0-2.9	0.8-2.0	.32	.64	1	4	86
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.0-0.5	.37	.64			
	15-31	---	---	0.00-0.01	---	---	---	---	---			
	31-60	---	---	0.01-0.42	---	---	---	---	---			
727: Dewar-----	0-5	10-18	1.15-1.25	4.00-14.00	0.14-0.19	0.0-2.9	0.8-2.0	.43	.64	1	6	48
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.0-0.5	.37	.64			
	15-31	---	---	0.00-0.01	---	---	---	---	---			
	31-60	---	---	0.01-0.42	---	---	---	---	---			
Midraw-----	0-4	18-27	1.20-1.40	4.00-14.00	0.10-0.16	3.0-5.9	1.0-2.0	.20	.37	1	7	38
	4-14	35-45	1.35-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
Dewar-----	0-5	10-18	1.20-1.40	4.00-14.00	0.15-0.17	0.0-2.9	0.8-2.0	.55	.64	1	3	86
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.5-1.0	.37	.64			
	15-60	---	---	0.00-0.01	---	---	---	---	---			
728: Dewar-----	0-5	10-18	1.15-1.35	4.00-14.00	0.19-0.21	0.0-2.9	0.8-2.0	.55	.64	1	5	56
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.5-1.0	.37	.64			
	15-60	---	---	0.00-0.01	---	---	---	---	---			
Midraw-----	0-4	10-18	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	1.0-2.0	.55	.64	1	5	56
	4-14	35-45	1.30-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Devada-----	0-5	18-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.28	.55	1	7	38
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
729:												
Dewar-----	0-5	10-18	1.15-1.25	4.00-14.00	0.14-0.19	0.0-2.9	0.8-2.0	.43	.64	1	6	48
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.0-0.5	.37	.64			
	15-31	---	---	0.00-0.01	---	---	---	---	---			
	31-60	---	---	0.01-0.42	---	---	---	---	---			
Boger-----	0-6	8-18	1.25-1.45	4.00-14.00	0.15-0.18	0.0-2.9	1.0-2.0	.32	.55	1	6	48
	6-19	10-18	1.35-1.55	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.15	.55			
	19-28	---	---	0.00-0.01	---	---	---	---	---			
	28-38	---	---	0.00-0.01	---	---	---	---	---			
732:												
Kelk-----	0-3	18-25	1.15-1.30	4.00-14.00	0.17-0.20	3.0-5.9	1.0-2.0	.55	.55	5	6	48
	3-13	18-25	1.30-1.50	4.00-14.00	0.17-0.20	3.0-5.9	0.0-0.5	.55	.55			
	13-60	18-25	1.40-1.60	0.42-1.40	0.15-0.17	3.0-5.9	0.0-0.5	.43	.43			
Kelk-----	0-13	15-20	1.15-1.30	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.49	.49	5	3	86
	13-60	18-27	1.40-1.60	0.42-1.40	0.19-0.21	3.0-5.9	0.5-1.0	.49	.49			
733:												
Kelk-----	0-13	18-27	1.15-1.30	4.00-14.00	0.19-0.21	3.0-5.9	1.0-2.0	.55	.55	5	6	48
	13-60	18-27	1.40-1.60	0.42-1.40	0.19-0.21	3.0-5.9	0.5-1.0	.49	.49			
Enko-----	0-6	3-6	1.40-1.55	42.00-141.0	0.10-0.13	0.0-2.9	0.6-1.0	.55	.64	5	2	134
	6-28	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.5-1.0	.37	.37			
	28-60	10-18	1.65-1.75	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.24	.24			
734:												
Kelk-----	0-13	18-27	1.15-1.30	4.00-14.00	0.19-0.21	3.0-5.9	1.0-2.0	.55	.55	5	6	48
	13-60	18-27	1.40-1.60	0.42-1.40	0.19-0.21	3.0-5.9	0.5-1.0	.49	.49			
736:												
Kelk-----	0-13	15-20	1.15-1.30	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.49	.49	5	3	86
	13-60	18-27	1.40-1.60	0.42-1.40	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
Kortty-----	0-7	8-15	1.30-1.50	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.5	.43	.49	4	5	56
	7-14	25-35	1.35-1.55	1.40-4.00	0.15-0.20	3.0-5.9	0.0-0.5	.32	.37			
	14-32	15-25	1.55-1.75	4.00-14.00	0.15-0.20	3.0-5.9	0.0-0.5	.24	.49			
	32-52	10-20	1.55-1.75	14.00-42.00	0.06-0.08	0.0-2.9	0.0-0.5	.10	.32			
	52-60	---	---	0.01-0.42	---	---	---	---	---			
740:												
Gowjai-----	0-11	8-18	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	1.0-3.0	.55	.64	3	5	56
	11-36	25-35	1.30-1.50	4.00-14.00	0.08-0.13	3.0-5.9	0.5-2.0	.17	.55			
	36-52	5-15	1.40-1.60	14.00-42.00	0.07-0.10	0.0-2.9	0.5-1.0	.20	.64			
	52-62	---	---	0.00-0.01	---	---	---	---	---			
Vanwyper-----	0-7	18-25	1.10-1.25	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.17	.43	2	7	38
	7-27	35-55	1.30-1.50	0.42-1.40	0.07-0.10	3.0-5.9	0.5-1.0	.10	.43			
	27-31	---	---	0.00-0.01	---	---	---	---	---			
Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.15	.43	2	7	38
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-38	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
750: Snapp-----	0-5	8-15	1.30-1.45	1.40-4.00	0.15-0.17	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	5-21	35-60	1.25-1.40	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			
Oxcorel-----	0-5	8-15	1.40-1.55	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.28	.49	2	4	86
	5-24	35-50	1.30-1.50	0.01-0.42	0.15-0.18	6.0-8.9	0.0-0.5	.28	.32			
	24-60	8-15	1.50-1.70	14.00-42.00	0.05-0.08	0.0-2.9	0.0-0.5	.10	.37			
751: Snapp-----	0-5	8-15	1.30-1.45	1.40-4.00	0.15-0.17	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	5-21	35-60	1.25-1.40	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			
Sodhouse-----	0-6	8-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.6	.55	.55	1	3	86
	6-19	8-15	1.40-1.55	4.00-14.00	0.11-0.16	0.0-2.9	0.0-0.5	.43	.55			
	19-42	0-0	---	0.00-0.01	0.00-0.00	---	---	---	---			
	42-60	5-12	1.45-1.65	14.00-42.00	0.03-0.06	0.0-2.9	0.0-0.5	.10	.28			
752: Snapp-----	0-5	8-15	1.30-1.45	1.40-4.00	0.15-0.17	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	5-21	35-60	1.25-1.40	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.9-2.0	.49	.49	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
753: Snapp-----	0-5	8-15	1.30-1.45	4.00-14.00	0.12-0.16	0.0-2.9	1.0-2.0	.28	.49	2	6	48
	5-21	35-60	1.25-1.45	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			
Dugchip-----	0-5	10-18	1.40-1.55	14.00-42.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	5-18	8-18	1.50-1.70	1.40-4.00	0.14-0.18	0.0-2.9	0.0-0.5	.49	.55			
	18-31	25-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.32	.37			
	31-39	---	---	0.00-0.01	---	---	---	---	---			
39-60	2-8	1.65-1.85	1.40-4.00	0.03-0.05	0.0-2.9	0.0-0.5	.02	.20				
Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
754: Snapp-----	0-5	8-15	1.30-1.45	1.40-4.00	0.15-0.17	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	5-21	35-60	1.25-1.40	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			
Puett-----	0-5	8-15	1.30-1.50	14.00-42.00	0.08-0.10	0.0-2.9	0.5-1.0	.15	.43	2	7	38
	5-10	5-10	1.35-1.55	14.00-42.00	0.08-0.15	0.0-2.9	0.0-0.5	.15	.24			
	10-14	---	---	0.01-0.42	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
755: Snapp-----	0-5	10-18	1.25-1.45	4.00-14.00	0.19-0.21	0.0-2.9	1.0-2.0	.55	.64	2	5	56
	5-21	35-60	1.25-1.40	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			
Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
756: Snapp-----	0-5	8-15	1.30-1.45	1.40-4.00	0.15-0.17	0.0-2.9	1.0-2.0	.37	.37	2	3	86
	5-21	35-60	1.25-1.40	0.42-1.40	0.10-0.20	6.0-8.9	0.0-0.6	.24	.37			
	21-25	25-35	1.30-1.50	1.40-4.00	0.14-0.19	3.0-5.9	0.0-0.6	.24	.43			
	25-60	5-10	1.55-1.70	4.00-14.00	0.04-0.06	0.0-2.9	0.0-0.6	.05	.20			
Adelaide-----	0-3	6-18	1.35-1.50	4.00-14.00	0.14-0.20	0.0-2.9	0.5-1.0	.55	.64	2	5	56
	3-11	6-18	1.35-1.50	4.00-14.00	0.14-0.20	0.0-2.9	0.0-0.5	.55	.64			
	11-16	---	---	0.42-1.40	---	---	---	---	---			
	16-28	27-40	1.35-1.55	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			
	28-35	---	---	0.00-0.01	---	---	---	---	---			
	35-60	0-5	1.55-1.75	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.10	.24			
McConnel-----	0-1	5-15	1.35-1.50	14.00-42.00	0.11-0.13	0.0-2.9	1.0-2.0	.37	.43	2	3	86
	1-16	5-15	1.40-1.60	14.00-42.00	0.12-0.15	0.0-2.9	0.8-2.0	.32	.32			
	16-60	0-5	1.45-1.60	141.0-705.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
760: Piline-----	0-4	35-40	1.35-1.50	0.42-1.40	0.15-0.17	6.0-8.9	0.0-0.5	.32	.32	5	4	86
	4-60	35-50	1.30-1.50	0.01-0.42	0.14-0.17	6.0-8.9	0.0-0.5	.28	.28			
Piline-----	0-4	35-40	1.35-1.50	0.42-1.40	0.15-0.17	6.0-8.9	0.0-0.5	.32	.32	5	4	86
	4-60	35-50	1.30-1.50	0.01-0.42	0.14-0.17	6.0-8.9	0.0-0.5	.28	.28			
761: Piline-----	0-4	40-50	1.25-1.45	0.42-1.40	0.15-0.17	6.0-8.9	0.0-0.5	.28	.28	5	4	86
	4-60	35-50	1.30-1.50	0.01-0.42	0.14-0.17	6.0-8.9	0.0-0.5	.28	.28			
772: Broyles-----	0-12	5-15	1.35-1.55	4.00-14.00	0.13-0.16	0.0-2.9	0.5-1.0	.55	.55	5	3	86
	12-60	5-15	1.40-1.60	14.00-42.00	0.09-0.11	0.0-2.9	0.0-0.5	.24	.32			
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.9-2.0	.49	.49	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
773: Broyles-----	0-3	8-18	1.35-1.55	4.00-14.00	0.16-0.18	0.0-2.9	0.5-1.0	.49	.49	5	3	86
	3-12	8-18	1.40-1.60	4.00-14.00	0.16-0.18	0.0-2.9	0.0-0.5	.43	.43			
	12-60	5-15	1.40-1.60	14.00-42.00	0.09-0.11	0.0-2.9	0.0-0.5	.24	.32			
774: Broyles-----	0-12	5-15	1.35-1.55	4.00-14.00	0.13-0.16	0.0-2.9	0.5-1.0	.55	.55	5	3	86
	12-60	5-15	1.40-1.60	14.00-42.00	0.09-0.11	0.0-2.9	0.0-0.5	.24	.32			
775: Broyles-----	0-12	5-15	1.35-1.55	14.00-42.00	0.13-0.15	0.0-2.9	0.5-1.0	.32	.32	5	3	86
	12-60	5-15	1.40-1.60	14.00-42.00	0.09-0.11	0.0-2.9	0.0-0.5	.24	.32			
Bubus-----	0-5	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.64	5	3	86
	5-63	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.49			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink-swell potential Pct	Organic matter Pct	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
Goldrun-----	0-7 7-60	1-8 1-8	1.45-1.60 1.50-1.65	42.00-141.0 42.00-141.0	0.05-0.09 0.07-0.09	0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5	.28 .24	.28 .24	5	2	134
780: Dacker-----	0-7 7-18 18-22 22-26	10-20 27-35 18-25 ---	1.30-1.50 1.25-1.45 1.25-1.45 ---	4.00-14.00 1.40-4.00 4.00-14.00 0.00-0.01	0.15-0.17 0.16-0.19 0.09-0.19 ---	0.0-2.9 3.0-5.9 0.0-2.9 ---	1.0-2.0 0.5-1.0 0.0-0.5 ---	.43 .37 .49 ---	.49 .49 .64 ---	2	3	86
Chiara-----	0-3 3-14 14-60	10-18 10-18 ---	1.25-1.40 1.35-1.55 ---	4.00-14.00 4.00-14.00 0.00-0.01	0.16-0.18 0.16-0.19 ---	0.0-2.9 0.0-2.9 ---	1.0-2.0 0.5-1.0 ---	.55 .49 ---	.55 .49 ---	1	3	86
781: Dacker-----	0-7 7-18 18-22 22-26	15-25 27-35 18-25 ---	1.30-1.50 1.25-1.45 1.25-1.45 ---	4.00-14.00 1.40-4.00 4.00-14.00 0.00-0.01	0.18-0.20 0.16-0.19 0.09-0.19 ---	0.0-2.9 3.0-5.9 0.0-2.9 ---	1.0-2.0 0.5-1.0 0.0-0.5 ---	.43 .37 .49 ---	.49 .49 .64 ---	2	6	48
Bilbo-----	0-13 13-40 40-60	15-25 35-50 5-15	1.25-1.40 1.25-1.45 1.40-1.60	4.00-14.00 0.42-1.40 42.00-141.0	0.11-0.13 0.07-0.09 0.03-0.06	3.0-5.9 3.0-5.9 0.0-2.9	1.0-3.0 0.5-1.0 0.5-1.0	.24 .05 .05	.43 .37 .20	3	7	38
782: Dacker-----	0-7 7-18 18-22 22-26	10-20 27-35 18-25 ---	1.30-1.50 1.25-1.45 1.25-1.45 ---	4.00-14.00 1.40-4.00 4.00-14.00 0.00-0.01	0.15-0.17 0.16-0.19 0.09-0.19 ---	0.0-2.9 3.0-5.9 0.0-2.9 ---	1.0-2.0 0.5-1.0 0.0-0.5 ---	.43 .37 .49 ---	.49 .49 .64 ---	2	3	86
Devada-----	0-5 5-15 15-25	14-18 40-60 ---	1.35-1.55 1.25-1.45 ---	14.00-42.00 0.42-1.40 0.00-0.01	0.10-0.14 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-3.0 1.0-2.0 ---	.28 .17 ---	.49 .37 ---	1	4	86
Snowmore-----	0-2 2-15 15-21 21-24 24-28	15-20 20-30 25-35 ---	1.30-1.50 1.25-1.45 1.40-1.60 ---	4.00-14.00 1.40-4.00 1.40-4.00 0.00-0.01	0.15-0.17 0.17-0.19 0.17-0.19 ---	0.0-2.9 3.0-5.9 3.0-5.9 ---	1.0-2.0 0.5-2.0 0.5-1.0 ---	.32 .32 .24 ---	.37 .37 .32 ---	2	3	86
790: Rio King-----	0-12 12-72	8-18 8-18	1.35-1.55 1.40-1.60	4.00-14.00 4.00-14.00	0.16-0.18 0.13-0.18	0.0-2.9 0.0-2.9	1.0-3.0 0.5-1.0	.24 .24	.24 .24	5	5	56
Clementine-----	---	---	---	---	---	---	---	---	---	-	---	---
791: Rio King-----	0-12 12-60	8-18 8-18	1.35-1.55 1.40-1.60	4.00-14.00 4.00-14.00	0.16-0.18 0.13-0.18	0.0-2.9 0.0-2.9	1.0-2.0 0.5-1.0	.24 .24	.24 .24	5	5	56
800: Udelope-----	0-2 2-10 10-18 18-22	7-18 8-18 8-18 ---	1.40-1.60 1.45-1.65 1.45-1.65 ---	4.00-14.00 14.00-42.00 14.00-42.00 0.00-0.01	0.09-0.12 0.11-0.13 0.05-0.07 ---	0.0-2.9 0.0-2.9 0.0-2.9 ---	1.0-3.0 1.0-3.0 1.0-3.0 ---	.32 .32 .24 ---	.37 .32 .32 ---	1	4	86
Bregar-----	0-1 1-9 9-13	12-25 25-35 ---	1.10-1.30 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.11-0.13 0.07-0.10 ---	0.0-2.9 0.0-2.9 ---	1.0-2.0 0.5-1.0 ---	.10 .05 ---	.43 .43 ---	1	7	38
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
801: Udelope-----	0-2	7-18	1.40-1.60	4.00-14.00	0.11-0.13	0.0-2.9	1.0-3.0	.32	.37	1	4	86
	2-10	8-18	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	1.0-3.0	.32	.32			
	10-18	8-18	1.45-1.65	14.00-42.00	0.05-0.07	0.0-2.9	1.0-3.0	.24	.32			
	18-22	---	---	0.00-0.01	---	---	---	---	---			
Hackwood-----	0-32	18-27	1.10-1.25	4.00-14.00	0.16-0.21	3.0-5.9	2.0-4.0	.37	.43	5	6	48
	32-60	18-27	1.25-1.40	4.00-14.00	0.10-0.17	3.0-5.9	1.0-2.0	.28	.49			
Tusel-----	0-22	10-20	1.20-1.40	4.00-14.00	0.09-0.15	0.0-2.9	2.0-5.0	.20	.37	3	6	48
	22-46	25-35	1.25-1.45	1.40-4.00	0.08-0.11	3.0-5.9	0.5-2.0	.20	.43			
	46-50	---	---	0.00-0.01	---	---	---	---	---			
810: Batan-----	0-4	5-15	1.40-1.55	14.00-42.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.49	5	3	86
	4-60	20-30	1.20-1.40	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	2	134
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			
811: Batan-----	0-4	10-15	1.35-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55	5	4L	86
	4-60	20-30	1.20-1.40	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
Batan-----	0-4	2-5	1.50-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.0-0.5	.20	.20	5	2	134
	4-60	20-30	1.25-1.45	1.40-4.00	0.19-0.25	3.0-5.9	0.0-0.5	.49	.49			
813: Batan-----	0-4	10-15	1.35-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55	5	4L	86
	4-60	20-30	1.20-1.40	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
815: Batan-----	0-4	10-15	1.35-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55	5	4L	86
	4-60	20-30	1.20-1.40	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
Prideen-----	0-7	8-18	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.5-1.0	.49	.49	5	5	56
	7-46	20-35	1.35-1.55	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
	46-61	35-50	1.35-1.50	0.42-1.40	0.16-0.18	6.0-8.9	0.0-0.5	.43	.43			
Wendane-----	0-20	15-25	1.35-1.50	4.00-14.00	0.15-0.21	0.0-2.9	0.0-0.5	.55	.55	5	4L	86
	20-35	15-25	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.43	.43			
	35-60	27-35	1.30-1.50	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
818: Batan-----	0-4	2-5	1.50-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.0-0.5	.20	.20	5	2	134
	4-60	20-30	1.25-1.45	1.40-4.00	0.19-0.25	3.0-5.9	0.0-0.5	.49	.49			
Subus-----	0-5	0-8	1.50-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.0-0.5	.43	.49	5	2	134
	5-60	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.49	.49			
Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	1	250
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			
823: Whirlo-----	0-14	10-15	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.64	3	5	56
	14-43	5-10	1.30-1.50	14.00-42.00	0.07-0.09	0.0-2.9	0.0-0.5	.15	.43			
	43-60	0-10	1.30-1.50	14.00-42.00	0.05-0.07	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	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Flue-----	0-6	10-18	1.35-1.55	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	6-13	10-20	1.40-1.60	1.40-4.00	0.15-0.19	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-7	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			
Dewar-----	0-5	10-18	1.20-1.40	4.00-14.00	0.12-0.17	0.0-2.9	0.8-2.0	.32	.64	1	4	86
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.0-0.5	.37	.64			
	15-31	---	---	0.00-0.01	---	---	---	---	---			
	31-60	---	---	0.01-0.42	---	---	---	---	---			
842: Dugchip-----	0-5	10-18	1.40-1.55	14.00-42.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	5-18	8-18	1.50-1.70	1.40-4.00	0.14-0.18	0.0-2.9	0.0-0.5	.49	.55			
	18-31	25-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.32	.37			
	31-39	---	---	0.00-0.01	---	---	---	---	---			
	39-60	2-8	1.65-1.85	1.40-4.00	0.03-0.05	0.0-2.9	0.0-0.5	.02	.20			
Kalk-----	0-13	18-27	1.15-1.30	4.00-14.00	0.19-0.21	3.0-5.9	1.0-2.0	.55	.55	5	6	48
	13-60	18-27	1.40-1.60	0.42-1.40	0.19-0.21	3.0-5.9	0.5-1.0	.49	.49			
844: Dugchip-----	0-5	10-18	1.40-1.55	14.00-42.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	5-18	8-18	1.50-1.70	1.40-4.00	0.14-0.18	0.0-2.9	0.0-0.5	.49	.55			
	18-31	25-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.32	.37			
	31-39	---	---	0.00-0.01	---	---	---	---	---			
	39-60	2-8	1.65-1.85	1.40-4.00	0.03-0.05	0.0-2.9	0.0-0.5	.02	.20			
Chiara-----	0-3	10-15	1.25-1.40	14.00-42.00	0.09-0.12	0.0-2.9	1.0-2.0	.17	.32	1	4	86
	3-14	10-15	1.35-1.55	4.00-14.00	0.16-0.19	0.0-2.9	0.5-1.0	.55	.55			
	14-60	---	---	0.00-0.01	---	---	---	---	---			
845: Dugchip-----	0-5	10-18	1.35-1.55	14.00-42.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	5-18	10-18	1.40-1.60	1.40-4.00	0.14-0.18	0.0-2.9	0.5-1.0	.49	.55			
	18-31	25-35	1.35-1.55	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.32	.37			
	31-39	---	---	0.00-0.01	---	---	---	---	---			
	39-60	2-8	1.50-1.70	1.40-4.00	0.03-0.05	0.0-2.9	0.0-0.5	.02	.20			
Needle Peak----	0-4	20-27	1.25-1.40	1.40-4.00	0.19-0.21	3.0-5.9	0.5-1.0	.55	.55	5	6	48
	4-60	20-35	1.30-1.45	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
860: Goosel-----	0-3	10-18	1.35-1.55	4.00-14.00	0.14-0.16	0.0-2.9	1.0-2.0	.43	.43	2	3	86
	3-13	18-26	1.35-1.55	1.40-4.00	0.15-0.19	3.0-5.9	0.0-0.5	.55	.55			
	13-21	35-60	1.20-1.40	0.42-1.40	0.15-0.20	6.0-8.9	0.0-0.5	.32	.37			
	21-25	12-25	1.50-1.70	4.00-14.00	0.08-0.10	0.0-2.9	0.0-0.5	.20	.37			
	25-26	---	---	0.00-0.01	---	---	---	---	---			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-5	14-18	1.35-1.55	14.00-42.00	0.06-0.11	0.0-2.9	1.0-3.0	.17	.49	1	5	56
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
Vanwyper-----	0-7	18-25	1.10-1.25	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.17	.43	2	7	38
	7-27	35-55	1.30-1.50	0.42-1.40	0.07-0.10	3.0-5.9	0.5-1.0	.10	.43			
	27-31	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
861: Goosel-----	0-3	10-18	1.35-1.55	4.00-14.00	0.14-0.16	0.0-2.9	1.0-2.0	.43	.43	2	3	86
	3-13	18-26	1.35-1.55	1.40-4.00	0.15-0.19	3.0-5.9	0.0-0.5	.55	.55			
	13-21	35-60	1.20-1.40	0.42-1.40	0.15-0.20	6.0-8.9	0.0-0.5	.32	.37			
	21-25	12-25	1.50-1.70	4.00-14.00	0.08-0.10	0.0-2.9	0.0-0.5	.20	.37			
	25-26	---	---	0.00-0.01	---	---	---	---	---			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
862: Goosel-----	0-13	18-26	1.35-1.55	1.40-4.00	0.15-0.19	3.0-5.9	1.0-2.0	.55	.55	2	6	48
	13-21	35-60	1.20-1.40	0.42-1.40	0.15-0.20	6.0-8.9	0.0-0.5	.32	.37			
	21-25	12-25	1.50-1.70	4.00-14.00	0.08-0.10	0.0-2.9	0.0-0.5	.20	.49			
	25-26	---	---	0.00-0.01	---	---	---	---	---			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-5	18-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.28	.55	1	7	38
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
Goosel-----	0-13	18-26	1.35-1.55	4.00-14.00	0.13-0.15	3.0-5.9	1.0-2.0	.28	.55	2	7	38
	13-21	35-60	1.20-1.40	0.42-1.40	0.15-0.20	6.0-8.9	0.0-0.5	.32	.37			
	21-25	12-25	1.50-1.70	4.00-14.00	0.08-0.10	0.0-2.9	0.0-0.5	.20	.49			
	25-26	---	---	0.00-0.01	---	---	---	---	---			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
863: Goosel-----	0-13	18-26	1.35-1.55	14.00-42.00	0.09-0.14	3.0-5.9	1.0-2.0	.28	.49	2	7	38
	13-21	35-60	1.20-1.40	0.42-1.40	0.15-0.20	6.0-8.9	0.0-0.5	.32	.37			
	21-25	12-25	1.50-1.70	4.00-14.00	0.08-0.10	0.0-2.9	0.0-0.5	.20	.49			
	25-26	---	---	0.00-0.01	---	---	---	---	---			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
Midraw-----	0-4	18-27	1.20-1.40	4.00-14.00	0.10-0.16	3.0-5.9	1.0-2.0	.20	.37	1	7	38
	4-14	35-45	1.35-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
880: Cleavage-----	0-7	15-25	1.15-1.35	4.00-14.00	0.12-0.14	0.0-2.9	1.0-3.0	.10	.43	1	7	38
	7-16	20-35	1.25-1.45	1.40-4.00	0.10-0.12	0.0-2.9	1.0-2.0	.10	.55			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.11-0.13	0.0-2.9	2.0-4.0	.24	.43	2	6	48
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-38	---	---	0.00-0.01	---	---	---	---	---			
Harcany-----	0-4	10-15	1.20-1.40	14.00-42.00	0.07-0.12	0.0-2.9	3.0-5.0	.15	.43	5	7	38
	4-18	5-10	1.30-1.50	4.00-14.00	0.16-0.18	0.0-2.9	2.0-4.0	.15	.49			
	18-72	10-15	1.45-1.65	14.00-42.00	0.10-0.12	0.0-2.9	1.0-2.0	.10	.32			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	---	---	---
881: Cleavage-----	0-7	15-25	1.15-1.35	4.00-14.00	0.12-0.14	0.0-2.9	1.0-3.0	.10	.32	1	7	38
	7-16	20-35	1.25-1.45	1.40-4.00	0.10-0.12	0.0-2.9	0.5-1.0	.10	.49			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
Burrita-----	0-7	12-18	1.35-1.50	4.00-14.00	0.08-0.10	0.0-2.9	0.8-2.0	.15	.49	1	7	38
	7-14	35-50	1.25-1.45	0.42-1.40	0.09-0.12	3.0-5.9	0.5-2.0	.10	.49			
	14-24	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Bregar-----	0-2 2-12 12-16	12-25 25-35 ---	1.15-1.25 1.40-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.11-0.13 0.09-0.14 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 0.5-1.0 ---	.10 .10 ---	.49 .55 ---	1	7	38
882: Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.12-0.14 0.10-0.12 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 1.0-2.0 ---	.10 .10 ---	.43 .55 ---	1	7	38
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
883: Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.12-0.14 0.10-0.12 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 0.5-1.0 ---	.10 .10 ---	.32 .49 ---	1	7	38
Tusel-----	0-16 16-46 46-50	10-20 25-35 ---	1.20-1.40 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.13-0.15 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	2.0-5.0 0.5-2.0 ---	.20 .20 ---	.37 .43 ---	3	6	48
Anawalt-----	0-2 2-16 16-20	18-27 35-60 ---	1.30-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.06-0.10 0.11-0.17 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 0.5-1.0 ---	.10 .28 ---	.43 .43 ---	1	7	38
884: Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.12-0.14 0.10-0.12 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 0.5-1.0 ---	.10 .10 ---	.32 .49 ---	1	7	38
Anawalt-----	0-2 2-16 16-20	18-27 35-60 ---	1.30-1.50 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.06-0.10 0.11-0.17 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 0.5-1.0 ---	.10 .28 ---	.43 .43 ---	1	7	38
Tusel-----	0-16 16-46 46-50	10-20 25-35 ---	1.20-1.40 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.13-0.15 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	2.0-5.0 0.5-2.0 ---	.20 .20 ---	.37 .43 ---	3	6	48
885: Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.08-0.11 0.10-0.12 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 1.0-2.0 ---	.05 .10 ---	.49 .55 ---	1	8	0
Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.12-0.14 0.10-0.12 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 1.0-2.0 ---	.10 .10 ---	.43 .55 ---	1	7	38
Reluctan-----	0-9 9-38 38-42	14-18 25-35 ---	1.30-1.45 1.40-1.60 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.12-0.14 0.12-0.17 ---	0.0-2.9 3.0-5.9 ---	2.0-4.0 0.5-2.0 ---	.28 .32 ---	.49 .43 ---	2	6	48
886: Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.15-0.17 0.10-0.12 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 1.0-2.0 ---	.20 .10 ---	.37 .55 ---	1	7	38
Bullump-----	0-13 13-23 23-52 52-56	15-25 15-25 25-35 ---	1.10-1.20 1.10-1.20 1.35-1.45 ---	4.00-14.00 4.00-14.00 1.40-4.00 0.00-0.01	0.10-0.15 0.08-0.12 0.09-0.14 ---	0.0-2.9 0.0-2.9 0.0-2.9 ---	2.0-5.0 0.5-2.0 0.5-1.0 ---	.20 .15 .10 ---	.37 .49 .32 ---	3	7	38

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
891: Softscrabble----	0-8 8-60	10-20 27-35	1.35-1.40 1.35-1.40	4.00-14.00 0.42-1.40	0.10-0.12 0.11-0.13	0.0-2.9 0.0-2.9	2.0-3.0 1.0-2.0	.28 .05	.32 .32	3	4	86
Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.12-0.14 0.10-0.12 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 1.0-2.0 ---	.10 .10 ---	.43 .55 ---	1	7	38
Harcany-----	0-4 4-18 18-72	10-15 5-10 10-15	1.20-1.40 1.30-1.50 1.45-1.65	4.00-14.00 4.00-14.00 14.00-42.00	0.10-0.15 0.16-0.18 0.10-0.12	0.0-2.9 0.0-2.9 0.0-2.9	3.0-5.0 2.0-4.0 1.0-2.0	.28 .15 .10	.49 .49 .32	5	6	48
892: Softscrabble----	0-8 8-60	10-20 27-35	1.20-1.40 1.25-1.45	4.00-14.00 0.42-1.40	0.14-0.16 0.10-0.13	0.0-2.9 0.0-2.9	1.0-3.0 1.0-2.0	.20 .10	.37 .37	5	6	48
Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.15-0.17 0.10-0.12 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 1.0-2.0 ---	.20 .10 ---	.37 .55 ---	1	6	48
Ninemile-----	0-2 2-14 14-18	20-27 40-60 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.13-0.15 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 1.0-2.0 ---	.28 .28 ---	.49 .37 ---	1	7	38
900: Roca-----	0-6 6-37 37-41	18-25 35-50 ---	1.30-1.45 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.13-0.15 0.10-0.13 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.0-0.5 ---	.10 .10 ---	.37 .32 ---	2	7	38
Bregar-----	0-2 2-12 12-16	12-25 25-35 ---	1.15-1.25 1.40-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.11-0.13 0.09-0.14 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 0.5-1.0 ---	.10 .10 ---	.49 .55 ---	1	7	38
Linrose-----	0-13 13-38 38-42	10-18 18-27 ---	1.40-1.50 1.30-1.50 ---	4.00-14.00 4.00-14.00 0.00-0.01	0.13-0.19 0.08-0.14 ---	0.0-2.9 0.0-2.9 ---	1.0-2.0 0.5-2.0 ---	.28 .15 ---	.49 .43 ---	2	6	48
901: Roca-----	0-6 6-37 37-41	18-25 35-50 ---	1.30-1.45 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.13-0.15 0.10-0.13 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.0-0.5 ---	.10 .10 ---	.37 .32 ---	2	7	38
Reluctan-----	0-9 9-38 38-42	15-22 25-35 ---	1.15-1.35 1.35-1.55 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.11-0.14 0.12-0.15 ---	0.0-2.9 3.0-5.9 ---	2.0-4.0 0.5-2.0 ---	.24 .24 ---	.43 .43 ---	2	6	48
902: Roca-----	0-6 6-37 37-41	18-25 35-50 ---	1.30-1.45 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.13-0.15 0.10-0.13 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.0-0.5 ---	.10 .10 ---	.37 .32 ---	2	7	38
Alyan-----	0-17 17-39 39-43	15-27 40-55 ---	1.35-1.55 1.30-1.50 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.16-0.21 0.09-0.14 ---	3.0-5.9 6.0-8.9 ---	2.0-3.0 0.5-1.0 ---	.43 .15 ---	.43 .28 ---	2	6	48
Quomus-----	0-9 9-24 24-60	8-18 10-18 10-18	1.40-1.55 1.45-1.60 1.45-1.60	14.00-42.00 4.00-14.00 4.00-14.00	0.15-0.17 0.11-0.16 0.11-0.16	0.0-2.9 0.0-2.9 0.0-2.9	1.0-3.0 1.0-2.0 0.0-0.5	.49 .49 .49	.55 .64 .64	5	3	86

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
903: Roca-----	0-6	18-25	1.30-1.45	4.00-14.00	0.13-0.15	0.0-2.9	1.0-2.0	.10	.37	2	7	38
	6-37	35-50	1.25-1.45	0.01-0.42	0.10-0.13	3.0-5.9	0.0-0.5	.10	.32			
	37-41	---	---	0.00-0.01	---	---	---	---	---			
Walti-----	0-4	10-20	1.30-1.45	4.00-14.00	0.09-0.12	0.0-2.9	1.0-3.0	.24	.43	2	6	48
	4-8	27-35	1.30-1.50	0.42-1.40	0.15-0.20	3.0-5.9	1.0-2.0	.20	.43			
	8-20	50-60	1.20-1.40	0.01-0.42	0.12-0.15	6.0-8.9	0.5-0.7	.15	.37			
	20-24	---	---	0.00-0.01	---	---	---	---	---			
Reluctan-----	0-9	15-22	1.30-1.45	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.10	.43	2	7	38
	9-38	25-35	1.40-1.60	1.40-4.00	0.12-0.17	3.0-5.9	0.5-2.0	.32	.43			
	38-42	---	---	0.00-0.01	---	---	---	---	---			
907: Roca-----	0-6	18-25	1.30-1.45	4.00-14.00	0.09-0.11	0.0-2.9	1.0-2.0	.10	.32	2	7	38
	6-37	35-50	1.25-1.45	0.01-0.42	0.05-0.12	3.0-5.9	0.5-1.0	.05	.37			
	37-41	---	---	0.00-0.01	---	---	---	---	---			
Climine-----	0-8	12-18	1.20-1.40	4.00-14.00	0.06-0.12	0.0-2.9	2.0-5.0	.15	.49	4	7	38
	8-25	10-18	1.20-1.40	4.00-14.00	0.13-0.18	0.0-2.9	1.0-3.0	.28	.43			
	25-60	18-35	1.40-1.60	4.00-14.00	0.06-0.13	0.0-2.9	0.5-2.0	.15	.55			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
909: Roca-----	0-6	18-25	1.30-1.45	4.00-14.00	0.13-0.15	0.0-2.9	1.0-2.0	.10	.37	2	7	38
	6-37	35-50	1.25-1.45	0.01-0.42	0.10-0.13	3.0-5.9	0.0-0.5	.10	.32			
	37-41	---	---	0.00-0.01	---	---	---	---	---			
Nomara-----	0-4	12-18	1.25-1.40	4.00-14.00	0.15-0.19	0.0-2.9	2.0-4.0	.28	.43	2	6	48
	4-19	12-18	1.25-1.40	4.00-14.00	0.18-0.20	0.0-2.9	2.0-4.0	.32	.43			
	19-40	20-35	1.30-1.50	1.40-4.00	0.07-0.10	0.0-2.9	1.0-2.0	.10	.49			
	40-44	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
911: Barnard-----	0-7	10-20	1.10-1.30	4.00-14.00	0.17-0.19	3.0-5.9	1.0-2.0	.28	.28	2	5	56
	7-27	35-50	1.30-1.50	0.42-1.40	0.13-0.15	6.0-8.9	0.5-1.0	.28	.28			
	27-40	---	---	0.00-0.01	0.00-0.00	---	---	---	---			
	40-60	10-15	1.40-1.60	14.00-42.00	0.00-0.00	0.0-2.9	0.0-0.5	.15	.24			
Barnard-----	0-7	18-25	1.10-1.30	4.00-14.00	0.11-0.13	3.0-5.9	1.0-2.0	.20	.37	2	7	38
	7-27	35-50	1.30-1.50	0.42-1.40	0.13-0.15	6.0-8.9	0.5-1.0	.28	.43			
	27-40	---	---	0.00-0.01	0.00-0.00	---	---	---	---			
	40-60	10-15	1.40-1.60	14.00-42.00	0.00-0.00	0.0-2.9	0.0-0.5	.15	.32			
Devada-----	0-5	14-18	1.35-1.55	14.00-42.00	0.06-0.11	0.0-2.9	1.0-3.0	.17	.49	1	7	38
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
921: Walti-----	0-4	10-20	1.30-1.45	4.00-14.00	0.09-0.12	0.0-2.9	1.0-3.0	.24	.43	2	6	48
	4-8	27-35	1.30-1.50	0.42-1.40	0.15-0.20	3.0-5.9	1.0-2.0	.20	.43			
	8-20	50-60	1.20-1.40	0.01-0.42	0.12-0.15	6.0-8.9	0.5-0.7	.15	.37			
	20-24	---	---	0.00-0.01	---	---	---	---	---			
Reluctan-----	0-9	15-20	1.20-1.40	14.00-42.00	0.08-0.11	0.0-2.9	1.0-2.0	.24	.28	2	3	86
	9-38	25-35	1.35-1.55	1.40-4.00	0.12-0.15	3.0-5.9	0.5-2.0	.24	.49			
	38-42	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Sumine-----	0-6	8-18	1.20-1.40	4.00-14.00	0.12-0.14	0.0-2.9	2.0-4.0	.24	.43	2	6	48
	6-28	25-35	1.40-1.60	4.00-14.00	0.08-0.12	0.0-2.9	0.5-2.0	.15	.55			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
922: Walti-----	0-4	10-20	1.30-1.45	4.00-14.00	0.10-0.14	0.0-2.9	1.0-3.0	.28	.55	2	6	48
	4-8	27-35	1.30-1.50	0.42-1.40	0.15-0.20	3.0-5.9	1.0-2.0	.20	.43			
	8-20	50-60	1.20-1.40	0.01-0.42	0.12-0.15	6.0-8.9	0.5-0.7	.15	.37			
	20-24	---	---	0.00-0.01	---	---	---	---	---			
Reluctan-----	0-9	15-22	1.15-1.35	4.00-14.00	0.11-0.14	0.0-2.9	2.0-4.0	.24	.43	2	6	48
	9-38	25-35	1.35-1.55	1.40-4.00	0.12-0.15	3.0-5.9	0.5-2.0	.24	.43			
	38-42	---	---	0.00-0.01	---	---	---	---	---			
Tusel-----	0-22	10-20	1.20-1.40	4.00-14.00	0.09-0.15	0.0-2.9	2.0-5.0	.20	.37	3	6	48
	22-46	25-35	1.25-1.45	1.40-4.00	0.08-0.11	3.0-5.9	0.5-2.0	.20	.43			
	46-50	---	---	0.00-0.01	---	---	---	---	---			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	---	---	---
923: Walti-----	0-4	10-20	1.30-1.45	4.00-14.00	0.10-0.14	0.0-2.9	1.0-3.0	.28	.55	2	6	48
	4-8	27-35	1.30-1.50	0.42-1.40	0.15-0.20	3.0-5.9	1.0-2.0	.20	.43			
	8-20	50-60	1.20-1.40	0.01-0.42	0.12-0.15	6.0-8.9	0.5-0.7	.15	.37			
	20-24	---	---	0.00-0.01	---	---	---	---	---			
Tusel-----	0-22	10-20	1.20-1.40	4.00-14.00	0.09-0.15	0.0-2.9	2.0-5.0	.20	.37	3	6	48
	22-46	25-35	1.25-1.45	1.40-4.00	0.08-0.11	3.0-5.9	0.5-2.0	.20	.43			
	46-50	---	---	0.00-0.01	---	---	---	---	---			
Anawalt-----	0-2	18-27	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-2.0	.10	.43	1	7	38
	2-16	35-60	1.25-1.45	0.42-1.40	0.11-0.17	6.0-8.9	0.5-1.0	.28	.43			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	---	---	---
924: Walti-----	0-4	10-20	1.30-1.45	4.00-14.00	0.10-0.14	0.0-2.9	1.0-3.0	.28	.55	2	6	48
	4-8	27-35	1.30-1.50	0.42-1.40	0.15-0.20	3.0-5.9	1.0-2.0	.20	.43			
	8-20	50-60	1.20-1.40	0.01-0.42	0.12-0.15	6.0-8.9	0.5-0.7	.15	.37			
	20-24	---	---	0.00-0.01	---	---	---	---	---			
Tusk-----	0-13	10-27	1.15-1.30	4.00-14.00	0.14-0.16	0.0-2.9	2.0-4.0	.32	.37	4	5	56
	13-40	27-35	1.20-1.40	1.40-4.00	0.15-0.17	3.0-5.9	1.0-3.0	.32	.55			
	40-60	20-35	1.30-1.50	4.00-14.00	0.05-0.06	0.0-2.9	0.5-1.0	.10	.49			
Alyan-----	0-17	18-27	1.10-1.25	4.00-14.00	0.10-0.15	3.0-5.9	2.0-3.0	.20	.37	2	7	38
	17-39	40-55	1.15-1.35	0.42-1.40	0.09-0.14	6.0-8.9	0.5-1.0	.15	.28			
	39-43	---	---	0.00-0.01	---	---	---	---	---			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	---	---	---
930: Tenabo-----	0-9	5-10	1.35-1.55	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.49	.64	1	4	86
	9-16	28-35	1.30-1.50	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.37	.49			
	16-22	---	---	0.00-0.01	---	---	---	---	---			
	22-60	5-10	1.45-1.65	14.00-141.0	0.03-0.07	0.0-2.9	0.0-0.5	.17	.20			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink-swell potential Pct	Organic matter Pct	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
Oxcorel-----	0-5 5-24 24-60	10-15 35-50 8-15	1.40-1.55 1.30-1.50 1.50-1.70	4.00-14.00 0.01-0.42 14.00-42.00	0.14-0.16 0.15-0.18 0.05-0.08	0.0-2.9 6.0-8.9 0.0-2.9	0.0-0.7 0.0-0.5 0.0-0.5	.32 .28 .10	.55 .32 .37	2	7	38
940: Soughe-----	0-4 4-14 14-18	10-20 25-35 ---	1.35-1.50 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.12 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.15 .15 ---	.55 .37 ---	1	7	38
Soughe-----	0-4 4-14 14-18	10-20 25-35 ---	1.35-1.50 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.12 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.15 .15 ---	.55 .37 ---	1	7	38
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
941: Soughe-----	0-4 4-14 14-18	10-20 25-35 ---	1.35-1.50 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.12 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.15 .15 ---	.55 .37 ---	1	7	38
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
942: Soughe-----	0-4 4-14 14-18	10-20 25-35 ---	1.35-1.50 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.12 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.15 .15 ---	.55 .37 ---	1	7	38
Ninemile-----	0-2 2-14 14-24	15-25 40-60 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.08-0.11 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	2.0-4.0 1.0-3.0 ---	.15 .28 ---	.55 .37 ---	1	7	38
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
943: Soughe-----	0-4 4-14 14-18	10-20 25-35 ---	1.35-1.50 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.11-0.13 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.24 .15 ---	.49 .37 ---	1	6	48
Vanwyper-----	0-7 7-27 27-31	18-25 35-55 ---	1.10-1.25 1.30-1.50 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.09-0.12 0.07-0.10 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.17 .10 ---	.43 .43 ---	2	7	38
Soughe-----	0-4 4-14 14-18	10-20 25-35 ---	1.35-1.50 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.12 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.15 .15 ---	.55 .37 ---	1	7	38
944: Soughe-----	0-4 4-14 14-18	8-18 25-35 ---	1.35-1.50 1.20-1.40 ---	14.00-42.00 1.40-4.00 0.00-0.01	0.03-0.05 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.0-0.5 ---	.05 .15 ---	.32 .49 ---	1	8	0
Vanwyper-----	0-7 7-27 27-31	18-25 35-55 ---	1.10-1.25 1.30-1.50 ---	4.00-14.00 0.42-1.40 0.00-0.01	0.09-0.12 0.07-0.10 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.17 .10 ---	.43 .43 ---	2	7	38
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
946:												
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.15	.43	1	7	38
	4-14	25-35	1.35-1.50	4.00-14.00	0.11-0.13	3.0-5.9	0.5-2.0	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Rubble Land----	0-60	0-0	1.70-2.35	141.0-705.0	0.00-0.10	0.0-2.9	0.0-0.1	---	---	-	8	0
947:												
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.15	.55	1	7	38
	4-14	25-35	1.30-1.50	1.40-4.00	0.08-0.11	3.0-5.9	0.5-1.0	.15	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.11-0.13	0.0-2.9	1.0-2.0	.24	.49	1	6	48
	4-14	25-35	1.35-1.50	4.00-14.00	0.11-0.13	3.0-5.9	0.5-2.0	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
954:												
Puffer-----	0-2	10-18	1.40-1.55	4.00-14.00	0.07-0.10	0.0-2.9	0.5-1.0	.20	.43	1	7	38
	2-9	10-18	1.40-1.55	14.00-42.00	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
	9-13	---	---	0.00-0.01	---	---	---	---	---			
Xine-----	0-11	10-18	1.15-1.30	14.00-42.00	0.12-0.14	0.0-2.9	2.0-4.0	.24	.43	3	6	48
	11-24	10-18	1.15-1.35	14.00-42.00	0.08-0.11	0.0-2.9	1.0-2.0	.10	.43			
	24-28	---	---	0.01-0.42	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
955:												
Puffer-----	0-2	10-18	1.40-1.55	4.00-14.00	0.07-0.10	0.0-2.9	0.5-1.0	.20	.43	1	6	48
	2-9	10-18	1.40-1.55	14.00-42.00	0.05-0.10	0.0-2.9	0.0-0.5	.15	.43			
	9-13	---	---	0.00-0.01	---	---	---	---	---			
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.15	.55	1	7	38
	4-14	25-35	1.30-1.50	1.40-4.00	0.08-0.11	3.0-5.9	0.5-1.0	.15	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
960:												
Zevadex-----	0-9	10-20	1.30-1.50	4.00-14.00	0.13-0.17	0.0-2.9	1.0-2.0	.43	.49	5	3	86
	9-20	20-35	1.30-1.50	1.40-4.00	0.16-0.20	3.0-5.9	0.0-0.6	.24	.43			
	20-60	10-20	1.65-1.80	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.6	.43	.49			
Wieland-----	0-8	8-22	1.25-1.45	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.49	.55	5	5	56
	8-17	40-55	1.25-1.40	0.42-1.40	0.09-0.13	6.0-8.9	0.5-1.0	.28	.43			
	17-33	27-35	1.45-1.60	0.42-1.40	0.10-0.17	3.0-5.9	0.0-0.5	.43	.49			
	33-60	10-20	1.45-1.65	4.00-14.00	0.09-0.16	0.0-2.9	0.0-0.5	.49	.64			
Kelk-----	0-13	15-20	1.15-1.30	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.49	.49	5	3	86
	13-60	18-27	1.40-1.60	0.42-1.40	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
Piline-----	---	---	---	---	---	---	---	---	---	-	---	---
962:												
Zevadex-----	0-9	10-25	1.20-1.40	4.00-14.00	0.15-0.17	3.0-5.9	1.0-2.0	.37	.43	5	5	56
	9-20	20-30	1.30-1.50	1.40-4.00	0.16-0.20	3.0-5.9	0.5-1.0	.24	.43			
	20-55	12-18	1.65-1.80	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.6	.37	.43			
	55-60	8-12	1.55-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.0-0.6	.32	.32			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Vanwyper-----	0-7	18-25	1.10-1.25	4.00-14.00	0.11-0.15	3.0-5.9	1.0-2.0	.20	.43	2	7	38
	7-27	35-55	1.30-1.50	0.42-1.40	0.06-0.10	3.0-5.9	0.5-1.0	.10	.37			
	27-31	---	---	0.00-0.01	---	---	---	---	---			
963:												
Zevadez-----	0-9	10-25	1.20-1.40	4.00-14.00	0.11-0.15	3.0-5.9	1.0-2.0	.32	.55	5	6	48
	9-20	20-30	1.30-1.50	1.40-4.00	0.16-0.20	3.0-5.9	0.5-1.0	.24	.43			
	20-55	12-18	1.65-1.80	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.6	.37	.43			
	55-60	8-12	1.55-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.0-0.6	.32	.32			
		---	---	---	---	---	---	---	---			
McConnel-----												
0-1	7-15	1.35-1.50	14.00-42.00	0.12-0.15	0.0-2.9	1.0-2.0	.32	.64	2	4	86	
	1-16	5-15	1.40-1.60	14.00-42.00	0.12-0.15	0.0-2.9	0.8-2.0	.32	.32			
	16-60	0-5	1.45-1.60	141.0-705.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
964:												
Zevadez-----	0-9	10-25	1.20-1.40	4.00-14.00	0.15-0.17	3.0-5.9	1.0-2.0	.37	.43	5	5	56
	9-20	20-30	1.30-1.50	1.40-4.00	0.16-0.20	3.0-5.9	0.5-1.0	.24	.43			
	20-55	12-18	1.65-1.80	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.6	.37	.43			
	55-60	8-12	1.55-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.0-0.6	.32	.32			
970:												
Gosumi-----	0-8	10-18	1.25-1.40	4.00-14.00	0.08-0.12	0.0-2.9	2.0-4.0	.17	.43	3	7	38
	8-32	35-50	1.25-1.45	0.01-0.42	0.08-0.13	3.0-5.9	1.0-2.0	.10	.28			
	32-50	10-15	1.35-1.55	14.00-42.00	0.06-0.09	0.0-2.9	0.0-0.5	.15	.37			
	50-60	---	---	0.00-0.01	---	---	---	---	---			
Walti-----												
0-4	10-20	1.30-1.45	4.00-14.00	0.09-0.12	0.0-2.9	1.0-3.0	.24	.43	2	6	48	
	4-8	27-35	1.30-1.50	0.42-1.40	0.15-0.20	3.0-5.9	1.0-2.0	.20	.43			
	8-20	50-60	1.20-1.40	0.01-0.42	0.12-0.15	6.0-8.9	0.5-0.7	.15	.37			
	20-24	---	---	0.00-0.01	---	---	---	---	---			
980:												
Snowmore-----	0-2	10-20	1.35-1.50	14.00-42.00	0.10-0.12	0.0-2.9	1.0-2.0	.17	.37	2	4	86
	2-15	20-30	1.30-1.50	1.40-4.00	0.17-0.19	3.0-5.9	0.0-0.6	.32	.37			
	15-21	25-35	1.40-1.60	1.40-4.00	0.17-0.19	3.0-5.9	0.0-0.6	.28	.37			
	21-24	---	---	0.00-0.01	---	---	---	---	---			
	24-28	---	---	0.00-0.01	---	---	---	---	---			
Snowmore-----												
0-2	15-20	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.32	.37	2	3	86	
	2-15	20-30	1.25-1.45	1.40-4.00	0.17-0.19	3.0-5.9	0.5-2.0	.32	.37			
	15-21	25-35	1.40-1.60	1.40-4.00	0.17-0.19	3.0-5.9	0.5-1.0	.24	.32			
	21-24	---	---	0.00-0.01	---	---	---	---	---			
	24-28	---	---	0.00-0.01	---	---	---	---	---			
981:												
Snowmore-----	0-2	15-20	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.32	.37	2	3	86
	2-15	20-30	1.25-1.45	1.40-4.00	0.17-0.19	3.0-5.9	0.5-2.0	.32	.37			
	15-21	25-35	1.40-1.60	1.40-4.00	0.17-0.19	3.0-5.9	0.5-1.0	.24	.32			
	21-24	---	---	0.00-0.01	---	---	---	---	---			
Zevadez-----												
0-9	10-20	1.30-1.50	4.00-14.00	0.13-0.17	0.0-2.9	1.0-2.0	.43	.49	5	3	86	
	9-20	20-35	1.30-1.50	1.40-4.00	0.16-0.20	3.0-5.9	0.0-0.6	.24	.43			
	20-60	10-20	1.65-1.80	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.6	.43	.49			
Snowmore-----												
0-2	10-20	1.35-1.50	14.00-42.00	0.10-0.12	0.0-2.9	1.0-2.0	.17	.37	2	4	86	
	2-15	20-30	1.30-1.50	1.40-4.00	0.17-0.19	3.0-5.9	0.0-0.6	.32	.37			
	15-21	25-35	1.40-1.60	1.40-4.00	0.17-0.19	3.0-5.9	0.0-0.6	.28	.37			
	21-24	---	---	0.00-0.01	---	---	---	---	---			
	24-28	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
983: Snowmore-----	0-2	15-20	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.32	.37	2	3	86
	2-15	20-30	1.25-1.45	1.40-4.00	0.17-0.19	3.0-5.9	0.5-2.0	.32	.37			
	15-21	25-35	1.40-1.60	1.40-4.00	0.17-0.19	3.0-5.9	0.5-1.0	.24	.32			
	21-24	---	---	0.00-0.01	---	---	---	---	---			
	24-28	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-5	14-18	1.35-1.55	14.00-42.00	0.06-0.11	0.0-2.9	1.0-3.0	.17	.49	1	5	56
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
984: Snowmore-----	0-2	15-20	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.32	.37	2	3	86
	2-15	20-30	1.25-1.45	1.40-4.00	0.17-0.19	3.0-5.9	0.5-2.0	.32	.37			
	15-21	25-35	1.40-1.60	1.40-4.00	0.17-0.19	3.0-5.9	0.5-1.0	.24	.32			
	21-24	---	---	0.00-0.01	---	---	---	---	---			
	24-28	---	---	0.00-0.01	---	---	---	---	---			
Vanwyper-----	0-7	18-25	1.10-1.25	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.17	.43	2	7	38
	7-27	35-55	1.30-1.50	0.42-1.40	0.07-0.10	3.0-5.9	0.5-1.0	.10	.43			
	27-31	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-5	14-18	1.35-1.55	14.00-42.00	0.10-0.14	0.0-2.9	1.0-3.0	.28	.49	1	4	86
	5-15	40-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.17	.37			
	15-25	---	---	0.00-0.01	---	---	---	---	---			
990: Playas-----	0-6	35-40	1.50-1.70	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	.37	5	4L	86
	6-60	35-70	1.60-1.80	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	.37			
994: Dune Land-----	0-6	0-1	1.50-1.60	42.00-141.0	0.04-0.05	0.0-2.9	0.0-0.1	.15	.20	5	1	250
	6-60	0-1	1.50-1.60	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.1	.10	.20			
995: Dune Land-----	0-6	0-1	1.50-1.60	42.00-141.0	0.04-0.05	0.0-2.9	0.0-0.1	.15	.20	5	1	250
	6-60	0-1	1.50-1.60	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.1	.10	.20			
Goldrun-----	0-7	1-8	1.45-1.60	42.00-141.0	0.07-0.09	0.0-2.9	0.7-1.0	.17	.17	5	1	250
	7-67	1-8	1.50-1.65	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.17	.17			
Davey-----	0-5	3-6	1.45-1.60	42.00-141.0	0.08-0.10	0.0-2.9	0.6-1.0	.32	.32	3	2	134
	5-20	10-15	1.50-1.65	14.00-42.00	0.13-0.15	0.0-2.9	0.6-1.0	.28	.32			
	20-50	5-10	1.50-1.65	42.00-141.0	0.08-0.10	0.0-2.9	0.0-0.5	.20	.20			
	50-60	---	---	0.01-0.42	---	---	---	---	---			
998: Dumps-----	0-60	0-1	---	42.00-141.0	0.01-0.02	0.0-2.9	0.0-0.1	---	---	-	8	0
Pits-----	0-60	0-0	---	0.00-0.01	0.00-0.00	---	---	---	---	-	8	0
999: Slickens-----	0-10	0-10	1.30-1.70	1.40-4.00	0.10-0.12	0.0-2.9	0.0-0.1	.64	.64	5	2	134
	10-60	---	1.40-1.70	0.42-141.0	0.00-0.00	---	0.0-0.1	---	---			
1004: Soughe-----	0-4	10-20	1.30-1.45	1.40-4.00	0.05-0.07	0.0-2.9	1.0-2.0	.10	.32	1	7	38
	4-14	25-35	1.20-1.40	1.40-4.00	0.08-0.11	3.0-5.9	0.0-0.5	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Enko-----	0-6	10-18	1.35-1.45	14.00-42.00	0.11-0.15	0.0-2.9	1.0-2.0	.43	.49	5	3	86
	6-12	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.5-1.0	.43	.49			
	12-28	10-18	1.55-1.65	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
	28-37	10-18	1.65-1.70	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.37	.43			
	37-60	10-18	1.40-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
1025: Wholan-----	0-6	5-15	1.35-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55	5	5	56
	6-60	5-15	1.35-1.50	4.00-14.00	0.16-0.19	0.0-2.9	0.0-0.5	.55	.55			
1030: Bullump-----	0-23	15-25	1.10-1.20	4.00-14.00	0.08-0.12	0.0-2.9	2.0-6.0	.15	.43	3	7	38
	23-52	25-35	1.35-1.45	1.40-4.00	0.09-0.14	0.0-2.9	0.5-3.0	.10	.32			
	52-56	---	---	0.00-0.01	---	---	---	---	---			
Westbutte-----	0-10	18-25	1.25-1.45	4.00-14.00	0.13-0.17	0.0-2.9	2.0-4.0	.20	.37	2	7	38
	10-33	18-25	1.30-1.50	4.00-14.00	0.09-0.13	0.0-2.9	2.0-3.0	.15	.37			
	33-37	---	---	---	---	---	---	---	---			
Harcany-----	0-4	10-15	1.20-1.40	4.00-14.00	0.10-0.15	0.0-2.9	3.0-5.0	.28	.49	5	6	48
	4-18	5-10	1.30-1.50	4.00-14.00	0.16-0.18	0.0-2.9	2.0-4.0	.15	.49			
	18-72	10-15	1.45-1.65	14.00-42.00	0.10-0.12	0.0-2.9	1.0-2.0	.10	.32			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	---	---	
1031: Bullump-----	0-23	15-25	1.10-1.20	4.00-14.00	0.11-0.14	0.0-2.9	2.0-6.0	.20	.37	3	6	48
	23-52	25-35	1.35-1.45	1.40-4.00	0.09-0.14	0.0-2.9	0.5-3.0	.10	.32			
	52-56	---	---	0.00-0.01	---	---	---	---	---			
Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.11-0.13	0.0-2.9	2.0-4.0	.24	.43	2	6	48
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-38	---	---	0.00-0.01	---	---	---	---	---			
Cleavage-----	0-7	15-20	1.35-1.55	4.00-14.00	0.04-0.05	0.0-2.9	1.0-3.0	.05	.43	1	8	0
	7-16	20-35	1.35-1.55	1.40-4.00	0.08-0.12	0.0-2.9	1.0-2.0	.10	.49			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
1050: Argenta-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37	5	3	86
	4-60	8-18	1.35-1.55	4.00-14.00	0.14-0.21	0.0-2.9	0.0-0.5	.49	.49			
1051: Argenta-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37	5	3	86
	4-60	8-18	1.35-1.55	4.00-14.00	0.14-0.21	0.0-2.9	0.0-0.5	.49	.49			
Preble-----	0-10	10-15	1.40-1.55	4.00-14.00	0.19-0.21	0.0-2.9	0.5-1.0	.43	.43	4	5	86
	10-55	8-15	1.60-1.75	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	55-65	0-5	1.50-1.65	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.17			
1052: Argenta-----	0-4	10-15	1.35-1.55	4.00-14.00	0.15-0.21	0.0-2.9	0.0-0.5	.49	.49	5	3	86
	4-60	8-18	1.35-1.55	4.00-14.00	0.14-0.21	0.0-2.9	0.0-0.5	.49	.49			
Preble-----	0-10	10-15	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43	4	3	86
	10-55	8-15	1.60-1.75	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	55-65	0-5	1.50-1.65	42.00-141.0	0.04-0.06	0.0-2.9	0.0-0.5	.10	.17			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1055: Argenta-----	0-4 4-60	8-18 8-18	1.35-1.55 1.35-1.55	4.00-14.00 4.00-14.00	0.19-0.25 0.14-0.21	0.0-2.9 0.0-2.9	0.0-0.5 0.0-0.5	.55 .49	.55 .49	5	5	56
1060: Paranat-----	0-19 19-60	27-35 18-35	1.05-1.20 1.10-1.25	1.40-4.00 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	1.0-3.0 0.5-2.0	.49 .49	.49 .49	5	4L	86
1061: Paranat-----	0-19 19-60	18-27 18-35	1.05-1.20 1.10-1.25	1.40-4.00 1.40-4.00	0.20-0.22 0.19-0.22	3.0-5.9 3.0-5.9	1.0-3.0 1.0-2.0	.55 .49	.55 .49	5	4L	86
1064: Paranat-----	0-19 19-60	18-27 18-35	1.05-1.20 1.10-1.25	1.40-4.00 1.40-4.00	0.20-0.22 0.19-0.22	3.0-5.9 3.0-5.9	1.0-3.0 1.0-2.0	.55 .49	.55 .49	5	4L	86
Paranat-----	0-19 19-60	18-27 18-35	1.05-1.20 1.10-1.25	1.40-4.00 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	1.0-3.0 0.5-2.0	.55 .49	.55 .49	5	4L	86
1066: Paranat-----	0-19 19-60	10-18 18-35	1.05-1.20 1.10-1.25	4.00-14.00 1.40-4.00	0.15-0.17 0.19-0.22	0.0-2.9 3.0-5.9	1.0-3.0 1.0-2.0	.49 .49	.49 .49	5	3	86
1067: Paranat-----	0-19 19-60	18-27 18-35	1.05-1.20 1.10-1.25	1.40-4.00 1.40-4.00	0.19-0.21 0.19-0.21	3.0-5.9 3.0-5.9	1.0-3.0 0.5-2.0	.55 .49	.55 .49	5	4L	86
Clementine-----	---	---	---	---	---	---	---	---	---	-	---	---
1072: Hoot-----	0-6 6-15 15-19	14-20 25-35 ---	1.40-1.55 1.40-1.60 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.05-0.08 0.06-0.09 ---	0.0-2.9 0.0-2.9 ---	0.0-0.5 0.0-0.5 ---	.10 .10 ---	.37 .55 ---	1	7	38
Laped-----	0-7 7-15 15-21 21-25	10-18 27-35 --- ---	1.30-1.50 1.40-1.60 --- ---	14.00-42.00 1.40-4.00 0.00-0.01 0.00-0.01	0.10-0.14 0.12-0.18 --- ---	0.0-2.9 3.0-5.9 --- ---	0.0-0.5 0.0-0.5 --- ---	.37 .17 --- ---	.64 .32 --- ---	1	4	86
Rubble Land-----	0-60	0-0	1.70-2.35	141.0-705.0	0.00-0.10	0.0-2.9	0.0-0.1	---	---	-	8	0
1075: Hoot-----	0-6 6-15 15-19	10-18 25-35 ---	1.40-1.55 1.40-1.60 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.06-0.11 0.06-0.09 ---	0.0-2.9 0.0-2.9 ---	0.0-0.5 0.0-0.5 ---	.17 .10 ---	.55 .49 ---	1	7	38
Panlee-----	0-10 10-42 42-45 45-55	8-15 8-15 --- ---	1.35-1.50 1.40-1.60 --- ---	14.00-42.00 4.00-14.00 0.00-0.01 0.00-0.01	0.11-0.15 0.07-0.12 --- ---	0.0-2.9 0.0-2.9 --- ---	0.8-2.0 0.0-0.5 --- ---	.28 .17 --- ---	.49 .64 --- ---	3	4	86
Rock Outcrop-----	---	---	---	---	---	---	---	---	---	-	---	---
1077: Hoot-----	0-6 6-15 15-19	10-18 25-35 ---	1.40-1.55 1.40-1.60 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.06-0.11 0.06-0.09 ---	0.0-2.9 0.0-2.9 ---	0.0-0.5 0.0-0.5 ---	.17 .10 ---	.55 .49 ---	1	7	38
Rock Outcrop-----	---	---	---	---	---	---	---	---	---	-	---	---

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.15	.43	1	7	38
	4-14	25-35	1.35-1.50	4.00-14.00	0.11-0.13	3.0-5.9	0.5-2.0	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
1078: Hoot-----	0-6	10-18	1.40-1.55	4.00-14.00	0.06-0.12	0.0-2.9	0.0-0.5	.20	.64	1	5	56
	6-15	25-35	1.40-1.60	1.40-4.00	0.06-0.09	0.0-2.9	0.0-0.5	.10	.49			
	15-19	---	---	0.00-0.01	---	---	---	---	---			
Genaw-----	0-5	15-25	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	1.0-2.0	.49	.55	2	5	56
	5-10	18-30	1.25-1.45	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.24	.43			
	10-18	15-24	1.35-1.55	4.00-14.00	0.09-0.14	0.0-2.9	0.0-0.5	.15	.43			
	18-22	---	---	0.00-0.01	---	---	---	---	---			
1090: Soclake-----	0-10	5-15	1.40-1.60	14.00-42.00	0.10-0.13	0.0-2.9	0.0-0.5	.28	.28	5	3	86
	10-20	5-15	1.40-1.60	14.00-42.00	0.10-0.13	0.0-2.9	0.0-0.5	.28	.28			
	20-60	0-5	1.55-1.75	14.00-42.00	0.07-0.10	0.0-2.9	0.0-0.5	.20	.20			
Argenta-----	0-4	5-10	1.35-1.55	14.00-42.00	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37	5	3	86
	4-60	8-18	1.35-1.55	4.00-14.00	0.14-0.21	0.0-2.9	0.0-0.5	.49	.49			
1100: Wendane-----	0-20	15-25	1.35-1.50	4.00-14.00	0.15-0.21	0.0-2.9	0.0-0.5	.55	.55	5	4L	86
	20-35	15-25	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.43	.43			
	35-60	27-35	1.30-1.50	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
1101: Wendane-----	0-20	15-25	1.35-1.50	4.00-14.00	0.15-0.21	0.0-2.9	1.0-2.0	.55	.55	5	4L	86
	20-35	15-25	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.43	.43			
	35-60	27-35	1.30-1.50	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
1102: Wendane-----	0-20	15-25	1.35-1.50	4.00-14.00	0.15-0.21	0.0-2.9	1.0-2.0	.55	.55	5	4L	86
	20-35	15-25	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.43	.43			
	35-60	27-35	1.30-1.50	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
Wendane-----	0-20	15-25	1.35-1.50	4.00-14.00	0.15-0.21	0.0-2.9	0.0-0.5	.55	.55	5	4L	86
	20-35	15-25	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.43	.43			
	35-60	27-35	1.30-1.50	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
1104: Wendane-----	0-20	15-25	1.35-1.50	4.00-14.00	0.15-0.21	0.0-2.9	0.0-0.5	.55	.55	5	4L	86
	20-35	15-25	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.43	.43			
	35-60	27-35	1.30-1.50	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.43	.43			
Sonoma-----	0-6	20-27	1.35-1.50	4.00-14.00	0.19-0.21	3.0-5.9	0.5-1.0	.43	.43	5	4L	86
	6-60	25-35	1.35-1.50	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.37	.37			
1110: Theon-----	0-2	10-20	1.40-1.55	4.00-14.00	0.09-0.10	0.0-2.9	0.0-0.5	.17	.43	1	7	38
	2-11	25-35	1.30-1.50	1.40-4.00	0.08-0.11	3.0-5.9	0.0-0.5	.15	.49			
	11-15	---	---	0.00-0.01	---	---	---	---	---			
1120: Relley-----	0-3	18-27	1.25-1.45	4.00-14.00	0.18-0.20	3.0-5.9	0.0-0.5	.55	.55	5	4L	86
	3-36	18-27	1.25-1.45	4.00-14.00	0.18-0.20	3.0-5.9	0.0-0.5	.55	.55			
	36-60	18-27	1.25-1.45	4.00-14.00	0.18-0.20	3.0-5.9	0.0-0.5	.55	.55			
Kelk-----	0-13	15-20	1.15-1.30	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.49	.49	5	3	86
	13-60	18-27	1.40-1.60	0.42-1.40	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1140: Layview-----	0-8 8-14 14-18	14-20 22-35 ---	1.25-1.45 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.07-0.10 0.08-0.10 ---	0.0-2.9 0.0-2.9 ---	1.0-5.0 1.0-2.0 ---	.10 .10 ---	.32 .32 ---	1	7	38
Tusel-----	0-16 16-46 46-50	10-20 25-35 ---	1.20-1.40 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.10 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	2.0-5.0 0.5-2.0 ---	.17 .20 ---	.43 .43 ---	3	7	38
Layview-----	0-8 8-14 14-18	14-20 22-35 ---	1.25-1.45 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.07-0.10 0.08-0.10 ---	0.0-2.9 0.0-2.9 ---	1.0-5.0 1.0-2.0 ---	.10 .10 ---	.32 .32 ---	1	7	38
1142: Layview-----	0-8 8-14 14-18	14-20 22-35 ---	1.25-1.45 1.30-1.50 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.07-0.10 0.08-0.10 ---	0.0-2.9 0.0-2.9 ---	1.0-5.0 1.0-2.0 ---	.10 .10 ---	.32 .32 ---	1	7	38
Udelope-----	0-2 2-10 8-18 8-18 18-22	7-18 8-18 8-18 ---	1.40-1.60 1.45-1.65 1.45-1.65 ---	4.00-14.00 14.00-42.00 14.00-42.00 0.00-0.01	0.11-0.13 0.11-0.13 0.05-0.07 ---	0.0-2.9 0.0-2.9 0.0-2.9 ---	1.0-3.0 1.0-3.0 1.0-3.0 ---	.32 .32 .24 ---	.37 .32 .32 ---	1	4	86
1150: Cotant-----	0-7 7-19 19-31	18-27 40-60 ---	1.10-1.30 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.01-0.42	0.07-0.11 0.14-0.16 ---	3.0-5.9 6.0-8.9 ---	1.0-2.0 0.0-0.5 ---	.15 .24 ---	.43 .28 ---	2	7	38
Say-----	0-9 9-24 24-34 34-38	10-18 18-25 4-15 ---	1.25-1.40 1.30-1.50 1.40-1.55 ---	4.00-14.00 4.00-14.00 14.00-42.00 0.01-0.42	0.13-0.15 0.12-0.15 0.04-0.08 ---	0.0-2.9 3.0-5.9 0.0-2.9 ---	2.0-3.0 0.5-2.0 0.0-0.5 ---	.24 .24 .10 ---	.32 .55 .24 ---	3	6	48
Cotant-----	0-7 7-19 19-31	18-27 40-60 ---	1.10-1.30 1.25-1.45 ---	4.00-14.00 0.42-1.40 0.01-0.42	0.11-0.14 0.14-0.16 ---	3.0-5.9 6.0-8.9 ---	1.0-2.0 0.0-0.5 ---	.24 .24 ---	.49 .28 ---	2	6	48
1151: Cotant-----	0-7 7-19 19-23	20-27 40-60 ---	1.10-1.30 1.25-1.45 ---	1.40-4.00 0.42-1.40 0.01-0.42	0.13-0.17 0.14-0.16 ---	3.0-5.9 6.0-8.9 ---	1.0-2.0 0.5-1.0 ---	.20 .24 ---	.37 .24 ---	2	7	38
Say-----	0-9 9-24 24-34 34-38	10-18 18-25 4-15 ---	1.25-1.40 1.30-1.50 1.40-1.55 ---	4.00-14.00 4.00-14.00 14.00-42.00 0.01-0.42	0.13-0.15 0.12-0.15 0.04-0.08 ---	0.0-2.9 3.0-5.9 0.0-2.9 ---	2.0-3.0 0.5-2.0 0.0-0.5 ---	.24 .24 .10 ---	.32 .55 .24 ---	3	6	48
Gol-----	0-5 5-14 14-18	12-18 18-35 ---	1.30-1.50 1.25-1.45 ---	14.00-42.00 1.40-4.00 0.01-0.42	0.08-0.12 0.12-0.16 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.5-1.0 ---	.17 .05 ---	.32 .43 ---	2	5	56
1160: Hawsley-----	0-3 3-60	0-5 0-5	1.50-1.70 1.50-1.70	42.00-141.0 141.0-705.0	0.05-0.07 0.06-0.08	0.0-2.9 0.0-2.9	0.0-0.5 0.0-0.5	.15 .10	.15 .10	5	1	250
1161: Hawsley-----	0-3 3-60	0-5 0-5	1.50-1.70 1.50-1.70	42.00-141.0 141.0-705.0	0.05-0.07 0.06-0.08	0.0-2.9 0.0-2.9	0.0-0.5 0.0-0.5	.15 .10	.15 .10	5	1	250

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Isolde-----	0-3	0-5	1.40-1.60	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.17	.17	5	1	250
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.17	.17			
1162: Hawsley-----	0-3	0-5	1.50-1.70	42.00-141.0	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15	5	1	250
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
Mazuma-----	0-6	10-14	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.43	.49	5	3	86
	6-60	5-15	1.45-1.65	14.00-42.00	0.10-0.14	0.0-2.9	0.0-0.5	.24	.55			
1167: Hawsley-----	0-3	0-5	1.50-1.70	42.00-141.0	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15	5	1	250
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
1168: Hawsley-----	0-3	0-5	1.50-1.70	42.00-141.0	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15	5	1	250
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
Essal-----	0-2	2-5	1.55-1.75	42.00-141.0	0.09-0.10	0.0-2.9	0.0-0.5	.15	.15	3	2	134
	2-34	8-18	1.50-1.70	4.00-14.00	0.15-0.19	0.0-2.9	0.0-0.5	.55	.55			
	34-60	2-8	1.60-1.80	42.00-141.0	0.06-0.09	0.0-2.9	0.0-0.5	.20	.20			
1169: Hawsley-----	0-3	0-5	1.50-1.70	42.00-141.0	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15	5	1	250
	3-69	0-5	1.50-1.70	141.0-705.0	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
Soughe-----	0-4	10-18	1.30-1.50	4.00-14.00	0.10-0.15	0.0-2.9	1.0-2.0	.32	.43	1	6	48
	4-14	25-35	1.35-1.55	1.40-4.00	0.09-0.11	3.0-5.9	0.0-0.5	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Panlee-----	0-10	8-15	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	0.8-2.0	.49	.55	3	3	86
	10-42	8-15	1.40-1.60	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.17	.64			
	42-45	---	---	0.00-0.01	---	---	---	---	---			
	45-55	---	---	0.00-0.01	---	---	---	---	---			
1170: Hunnton-----	0-6	12-18	1.20-1.35	4.00-14.00	0.11-0.15	0.0-2.9	1.0-2.0	.49	.55	2	6	48
	6-12	20-30	1.25-1.45	1.40-4.00	0.15-0.21	3.0-5.9	0.0-1.0	.49	.55			
	12-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.0-0.5	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	---	---	0.42-14.00	---	---	---	---	---			
Bliss-----	0-4	8-18	1.30-1.50	4.00-14.00	0.12-0.16	0.0-2.9	1.0-2.0	.28	.55	2	6	48
	4-22	8-18	1.40-1.60	4.00-14.00	0.15-0.18	0.0-2.9	0.0-1.0	.55	.64			
	22-28	5-12	1.45-1.65	4.00-14.00	0.14-0.17	0.0-2.9	0.0-0.6	.55	.64			
	28-60	---	---	0.42-1.40	---	---	---	---	---			
Trunk-----	0-6	10-20	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	1.0-2.0	.24	.43	2	6	48
	6-36	35-50	1.30-1.45	0.01-0.42	0.10-0.13	6.0-8.9	0.0-0.5	.20	.37			
	36-40	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1171: Hunnton-----	0-6	10-18	1.30-1.45	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	6-12	20-35	1.25-1.45	1.40-4.00	0.16-0.20	3.0-5.9	0.0-0.5	.49	.55			
	12-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.0-0.5	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	2-10	1.55-1.70	14.00-42.00	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
Dugchip-----	0-5	10-18	1.40-1.55	14.00-42.00	0.16-0.18	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	5-18	8-18	1.50-1.70	1.40-4.00	0.14-0.18	0.0-2.9	0.0-0.5	.49	.55			
	18-31	25-35	1.40-1.60	0.42-1.40	0.16-0.20	3.0-5.9	0.0-0.5	.32	.37			
	31-39	---	---	0.00-0.01	---	---	---	---	---			
	39-60	2-8	1.65-1.85	1.40-4.00	0.03-0.05	0.0-2.9	0.0-0.5	.02	.20			
Orovada-----	0-8	10-15	1.35-1.50	4.00-14.00	0.15-0.17	0.0-2.9	0.9-2.0	.49	.49	5	3	86
	8-26	5-18	1.40-1.55	4.00-14.00	0.15-0.17	0.0-2.9	0.5-1.0	.43	.43			
	26-61	5-18	1.40-1.60	4.00-14.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.49			
1172: Flue-----	0-6	10-18	1.35-1.55	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	6-13	10-20	1.40-1.60	1.40-4.00	0.15-0.19	0.0-2.9	0.5-1.0	.55	.64			
	13-35	35-60	1.30-1.50	0.01-0.42	0.14-0.21	6.0-8.9	0.0-0.5	.32	.43			
	35-40	---	---	0.00-0.01	---	---	---	---	---			
	40-60	2-7	1.50-1.70	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.05	.24			
Hunnton-----	0-6	10-18	1.30-1.45	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	6-12	20-35	1.25-1.45	1.40-4.00	0.16-0.20	3.0-5.9	0.0-0.5	.49	.55			
	12-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.0-0.5	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	2-10	1.55-1.70	14.00-42.00	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
McConnel-----	0-16	5-18	1.35-1.50	14.00-42.00	0.10-0.13	0.0-2.9	0.8-2.0	.32	.37	2	4	86
	16-60	0-5	1.45-1.60	141.0-705.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.15			
1173: Hunnton-----	0-6	10-18	1.30-1.45	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	6-12	20-35	1.25-1.45	1.40-4.00	0.16-0.20	3.0-5.9	0.0-0.5	.49	.55			
	12-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.0-0.5	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	2-10	1.55-1.70	14.00-42.00	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
1174: Hunnton-----	0-6	10-18	1.30-1.45	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	6-12	20-35	1.25-1.45	1.40-4.00	0.16-0.20	3.0-5.9	0.0-0.5	.49	.55			
	12-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.0-0.5	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	2-10	1.55-1.70	14.00-42.00	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
Zevadex-----	0-9	10-20	1.30-1.50	4.00-14.00	0.13-0.17	0.0-2.9	1.0-2.0	.43	.49	5	3	86
	9-20	20-35	1.30-1.50	1.40-4.00	0.16-0.20	3.0-5.9	0.0-0.6	.24	.43			
	20-60	10-20	1.65-1.80	0.42-1.40	0.13-0.17	0.0-2.9	0.0-0.6	.43	.49			
Enko-----	0-6	10-18	1.35-1.45	14.00-42.00	0.11-0.15	0.0-2.9	1.0-2.0	.43	.49	5	3	86
	6-12	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.5-1.0	.43	.49			
	12-28	10-18	1.55-1.65	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
	28-37	10-18	1.65-1.70	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.37	.43			
	37-60	10-18	1.40-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1175: Hunnton-----	0-6	12-18	1.20-1.35	4.00-14.00	0.11-0.15	0.0-2.9	1.0-2.0	.49	.55	2	6	48
	6-12	20-30	1.25-1.45	1.40-4.00	0.15-0.21	3.0-5.9	0.0-1.0	.49	.55			
	12-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.0-0.5	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	---	---	0.42-14.00	---	---	---	---	---			
Goosel-----	0-13	18-26	1.35-1.55	4.00-14.00	0.10-0.13	3.0-5.9	1.0-2.0	.24	.43	2	7	38
	13-21	35-60	1.20-1.40	0.42-1.40	0.15-0.20	6.0-8.9	0.0-0.5	.32	.37			
	21-25	12-25	1.50-1.70	4.00-14.00	0.08-0.10	0.0-2.9	0.0-0.5	.20	.49			
	25-26	---	---	0.00-0.01	---	---	---	---	---			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
Connel-----	0-6	12-18	1.30-1.50	14.00-42.00	0.13-0.17	0.0-2.9	1.0-2.0	.24	.43	3	6	48
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.5-1.0	.28	.32			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
1176: Hunnton-----	0-6	20-27	1.10-1.25	4.00-14.00	0.09-0.12	3.0-5.9	1.0-2.0	.43	.43	2	7	38
	6-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.5-1.0	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	---	---	0.42-14.00	---	---	---	---	---			
Hunnton-----	0-6	12-18	1.20-1.35	4.00-14.00	0.11-0.15	0.0-2.9	1.0-2.0	.49	.55	2	6	48
	6-12	20-30	1.25-1.45	1.40-4.00	0.15-0.21	3.0-5.9	0.0-1.0	.49	.55			
	12-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.0-0.5	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	---	---	0.42-14.00	---	---	---	---	---			
Dacker-----	0-7	15-20	1.30-1.50	4.00-14.00	0.10-0.15	0.0-2.9	1.0-2.0	.15	.43	2	6	48
	7-18	27-35	1.25-1.45	1.40-4.00	0.13-0.19	3.0-5.9	0.5-2.0	.49	.64			
	18-22	20-25	1.25-1.45	4.00-14.00	0.13-0.19	3.0-5.9	0.5-1.0	.49	.64			
	22-26	---	---	0.00-0.01	---	---	---	---	---			
1180: Rocconda-----	0-1	12-18	1.30-1.50	14.00-42.00	0.08-0.10	0.0-2.9	1.0-2.0	.17	.55	1	7	38
	1-5	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.0-0.8	.10	.37			
	5-15	---	---	0.00-0.01	---	---	---	---	---			
Hoot-----	0-6	10-18	1.40-1.55	4.00-14.00	0.06-0.11	0.0-2.9	0.0-0.5	.17	.55	1	7	38
	6-15	25-35	1.40-1.60	1.40-4.00	0.06-0.09	0.0-2.9	0.0-0.5	.10	.49			
	15-19	---	---	0.00-0.01	---	---	---	---	---			
1181: Rocconda-----	0-1	12-18	1.30-1.50	14.00-42.00	0.08-0.11	0.0-2.9	1.0-2.0	.17	.64	1	7	38
	1-5	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.0-0.8	.10	.37			
	5-15	---	---	0.00-0.01	---	---	---	---	---			
Hoot-----	0-6	10-18	1.40-1.55	4.00-14.00	0.06-0.11	0.0-2.9	0.0-0.5	.17	.55	1	7	38
	6-15	25-35	1.40-1.60	1.40-4.00	0.06-0.09	0.0-2.9	0.0-0.5	.10	.49			
	15-19	---	---	0.00-0.01	---	---	---	---	---			
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.15	.55	1	7	38
	4-14	25-35	1.30-1.50	1.40-4.00	0.08-0.11	3.0-5.9	0.5-1.0	.15	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
1184: Rocconda-----	0-1	12-18	1.30-1.50	14.00-42.00	0.08-0.10	0.0-2.9	1.0-2.0	.17	.55	1	7	38
	1-5	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.0-0.8	.10	.37			
	5-15	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Panlee-----	0-10	8-15	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	0.8-2.0	.49	.55	3	3	86
	10-42	8-15	1.40-1.60	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.17	.64			
	42-45	---	---	0.00-0.01	---	---	---	---	---			
	45-55	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
1185:												
Rocconda-----	0-1	12-18	1.30-1.50	14.00-42.00	0.08-0.10	0.0-2.9	1.0-2.0	.17	.55	1	7	38
	1-5	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.0-0.8	.10	.37			
	5-15	---	---	0.00-0.01	---	---	---	---	---			
Quomus-----	0-9	8-18	1.40-1.55	14.00-42.00	0.15-0.17	0.0-2.9	1.0-3.0	.49	.55	5	3	86
	9-24	10-18	1.45-1.60	4.00-14.00	0.11-0.16	0.0-2.9	1.0-2.0	.49	.64			
	24-60	10-18	1.45-1.60	4.00-14.00	0.11-0.16	0.0-2.9	0.0-0.5	.49	.64			
Atlow-----	0-4	14-24	1.15-1.35	4.00-14.00	0.07-0.10	0.0-2.9	1.0-2.0	.15	.55	1	7	38
	4-14	27-35	1.30-1.50	1.40-4.00	0.08-0.10	0.0-2.9	0.5-1.0	.17	.43			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
1186:												
Rocconda-----	0-1	12-18	1.40-1.60	4.00-14.00	0.13-0.18	0.0-2.9	1.0-2.0	.28	.49	1	6	48
	1-5	35-50	1.30-1.50	0.42-1.40	0.07-0.09	3.0-5.9	0.0-0.1	.10	.37			
	5-9	---	---	0.00-0.01	---	---	---	---	---			
Burrita-----	0-7	12-18	1.35-1.50	4.00-14.00	0.08-0.10	0.0-2.9	0.8-2.0	.15	.49	1	7	38
	7-14	35-50	1.25-1.45	0.42-1.40	0.09-0.12	3.0-5.9	0.5-2.0	.10	.49			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
Midraw-----	0-4	18-25	1.20-1.40	4.00-14.00	0.14-0.16	3.0-5.9	1.0-2.0	.24	.43	1	7	38
	4-14	35-45	1.35-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
1187:												
Rocconda-----	0-1	12-18	1.30-1.50	14.00-42.00	0.08-0.11	0.0-2.9	1.0-2.0	.17	.64	1	7	38
	1-5	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.0-0.8	.10	.37			
	5-15	---	---	0.00-0.01	---	---	---	---	---			
Panlee-----	0-10	8-15	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	0.8-2.0	.49	.55	3	3	86
	10-42	8-15	1.40-1.60	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.17	.64			
	42-45	---	---	0.00-0.01	---	---	---	---	---			
	45-55	---	---	0.00-0.01	---	---	---	---	---			
Hoot-----	0-6	10-18	1.40-1.55	4.00-14.00	0.06-0.11	0.0-2.9	0.0-0.5	.17	.55	1	7	38
	6-15	25-35	1.40-1.60	1.40-4.00	0.06-0.09	0.0-2.9	0.0-0.5	.10	.49			
	15-19	---	---	0.00-0.01	---	---	---	---	---			
1188:												
Rocconda-----	0-1	12-18	1.30-1.50	14.00-42.00	0.08-0.10	0.0-2.9	1.0-2.0	.17	.55	1	7	38
	1-5	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.0-0.8	.10	.37			
	5-15	---	---	0.00-0.01	---	---	---	---	---			
Rocconda-----	0-1	12-18	1.30-1.50	14.00-42.00	0.08-0.10	0.0-2.9	1.0-2.0	.17	.55	1	7	38
	1-5	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.0-0.8	.10	.37			
	5-15	---	---	0.00-0.01	---	---	---	---	---			
1189:												
Rocconda-----	0-1	12-18	1.30-1.50	14.00-42.00	0.08-0.11	0.0-2.9	1.0-2.0	.17	.64	1	7	38
	1-5	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.0-0.8	.10	.37			
	5-15	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.11-0.13	0.0-2.9	1.0-2.0	.24	.49	1	6	48
	4-14	25-35	1.30-1.50	1.40-4.00	0.08-0.11	3.0-5.9	0.5-1.0	.15	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
1192:												
Enko-----	0-6	10-18	1.35-1.45	14.00-42.00	0.11-0.15	0.0-2.9	1.0-2.0	.43	.49	5	3	86
	6-12	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.5-1.0	.43	.49			
	12-28	10-18	1.55-1.65	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
	28-37	10-18	1.65-1.70	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.37	.43			
	37-60	10-18	1.40-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
1194:												
Enko-----	0-6	10-18	1.35-1.45	4.00-14.00	0.14-0.18	0.0-2.9	1.0-2.0	.43	.49	5	5	56
	6-12	10-18	1.40-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.5-1.0	.43	.49			
	12-28	10-18	1.55-1.65	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
	28-37	10-18	1.65-1.70	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.5	.37	.43			
	37-60	10-18	1.40-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.43	.49			
1200:												
Erakatak-----	0-6	15-27	1.05-1.20	4.00-14.00	0.11-0.14	3.0-5.9	2.0-5.0	.17	.32	2	7	38
	6-11	35-50	1.10-1.30	1.40-4.00	0.08-0.11	3.0-5.9	1.0-2.0	.05	.37			
	11-27	40-60	1.20-1.40	0.42-1.40	0.06-0.09	3.0-5.9	0.5-2.0	.05	.37			
	27-31	---	---	0.00-0.01	---	---	---	---	---			
Madeline-----												
0-10	18-27	1.20-1.35	1.40-4.00	0.16-0.18	3.0-5.9	2.0-4.0	.32	.37	1	6	48	
	10-14	35-60	1.20-1.35	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.15	.37			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
1201:												
Erakatak-----	0-6	15-27	1.05-1.20	4.00-14.00	0.05-0.08	0.0-2.9	2.0-5.0	.10	.32	2	7	38
	6-11	35-50	1.10-1.30	1.40-4.00	0.08-0.11	3.0-5.9	1.0-2.0	.05	.37			
	11-27	40-60	1.20-1.40	0.42-1.40	0.06-0.09	3.0-5.9	0.5-1.0	.05	.37			
	27-31	---	---	0.00-0.01	---	---	---	---	---			
Ninemile-----												
0-2	20-27	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	1.0-2.0	.28	.49	1	7	38	
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.28	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Harcany-----												
0-4	5-10	1.20-1.40	4.00-14.00	0.13-0.15	0.0-2.9	3.0-5.0	.24	.43	5	6	48	
	4-18	5-10	1.20-1.40	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.15	.49			
	18-72	10-15	1.30-1.50	14.00-42.00	0.10-0.12	0.0-2.9	0.5-2.0	.10	.32			
1202:												
Erakatak-----	0-6	15-25	1.05-1.20	4.00-14.00	0.07-0.11	0.0-2.9	2.0-5.0	.05	.43	2	7	38
	6-11	35-40	1.10-1.30	1.40-4.00	0.08-0.11	3.0-5.9	1.0-2.0	.05	.43			
	11-27	40-60	1.20-1.40	0.42-1.40	0.06-0.09	3.0-5.9	0.5-1.0	.05	.37			
	27-31	---	---	0.00-0.01	---	---	---	---	---			
Bullump-----												
0-23	15-25	1.10-1.20	4.00-14.00	0.08-0.12	0.0-2.9	2.0-6.0	.15	.43	3	7	38	
	23-52	25-35	1.35-1.45	1.40-4.00	0.09-0.14	0.0-2.9	0.5-3.0	.10	.32			
	52-56	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	---	---	
1210:												
Cresal-----	0-6	6-12	1.35-1.55	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55	5	4L	86
	6-21	8-15	1.30-1.50	1.40-4.00	0.17-0.20	0.0-2.9	0.0-0.5	.55	.55			
	21-60	8-18	1.45-1.60	1.40-4.00	0.16-0.20	0.0-2.9	0.0-0.5	.55	.55			
Playas-----												
0-6	35-40	1.50-1.70	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	.37	5	4L	86	
	6-60	35-70	1.60-1.80	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	.37			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
1211: Cresal-----	0-6	6-12	1.35-1.55	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55	5	4L	86
	6-21	8-15	1.30-1.50	1.40-4.00	0.17-0.20	0.0-2.9	0.0-0.5	.55	.55			
	21-60	8-18	1.45-1.60	1.40-4.00	0.16-0.20	0.0-2.9	0.0-0.5	.55	.55			
1212: Cresal-----	0-6	0-3	1.45-1.65	42.00-141.0	0.09-0.10	0.0-2.9	0.5-0.6	.17	.17	5	2	134
	6-21	8-15	1.30-1.50	1.40-4.00	0.17-0.20	0.0-2.9	0.0-0.5	.55	.55			
	21-60	8-18	1.45-1.60	1.40-4.00	0.16-0.20	0.0-2.9	0.0-0.5	.55	.55			
Tresed-----	0-10	2-12	1.35-1.45	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.55	.55	5	2	134
	10-25	35-55	1.20-1.30	0.42-1.40	0.15-0.18	6.0-8.9	0.0-0.5	.32	.32			
	25-60	5-20	1.35-1.45	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.55	.55			
Playas-----	0-6	35-40	1.50-1.70	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	.37	5	4L	86
	6-60	35-70	1.60-1.80	0.01-0.42	0.02-0.04	6.0-8.9	0.0-0.1	.37	.37			
1221: Alyan-----	0-17	18-27	1.10-1.25	4.00-14.00	0.07-0.10	0.0-2.9	2.0-3.0	.10	.32	2	7	38
	17-39	40-55	1.15-1.35	0.42-1.40	0.12-0.14	6.0-8.9	0.5-1.0	.15	.28			
	39-43	---	---	0.00-0.01	---	---	---	---	---			
Bilbo-----	0-13	15-25	1.25-1.40	4.00-14.00	0.09-0.11	0.0-2.9	1.0-3.0	.15	.49	3	7	38
	13-40	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-1.0	.05	.37			
	40-60	5-15	1.40-1.60	42.00-141.0	0.03-0.06	0.0-2.9	0.5-1.0	.05	.20			
1230: Knott-----	0-6	8-14	1.40-1.55	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.5	.24	.43	1	4	86
	6-16	35-50	1.30-1.45	0.42-1.40	0.14-0.18	6.0-8.9	0.0-0.5	.17	.24			
	16-29	---	---	0.00-0.01	---	---	---	---	---			
	29-60	4-10	1.45-1.65	14.00-42.00	0.04-0.07	0.0-2.9	0.0-0.5	.10	.37			
Sodhouse-----	0-6	8-15	1.40-1.55	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.6	.32	.64	1	4	86
	6-19	8-15	1.40-1.55	4.00-14.00	0.11-0.16	0.0-2.9	0.0-0.5	.43	.55			
	19-42	0-0	---	0.00-0.01	0.00-0.00	---	---	---	---			
	42-60	5-12	1.45-1.65	14.00-42.00	0.03-0.06	0.0-2.9	0.0-0.5	.10	.28			
Wholan-----	0-6	5-15	1.35-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55	5	5	56
	6-60	5-15	1.35-1.50	4.00-14.00	0.16-0.19	0.0-2.9	0.0-0.5	.55	.55			
1240: Laped-----	0-7	10-18	1.30-1.50	14.00-42.00	0.07-0.11	0.0-2.9	0.0-0.5	.20	.64	1	5	56
	7-15	27-35	1.40-1.60	1.40-4.00	0.12-0.18	3.0-5.9	0.0-0.5	.17	.32			
	15-21	---	---	0.00-0.01	---	---	---	---	---			
	21-25	---	---	0.00-0.01	---	---	---	---	---			
1241: Laped-----	0-7	12-20	1.30-1.50	4.00-14.00	0.11-0.14	0.0-2.9	0.0-0.5	.28	.55	1	4	86
	7-15	27-35	1.40-1.60	1.40-4.00	0.13-0.15	3.0-5.9	0.0-0.5	.17	.32			
	15-21	---	---	0.00-0.01	---	---	---	---	---			
	21-25	---	---	0.00-0.01	---	---	---	---	---			
Boger-----	0-6	8-18	1.25-1.45	4.00-14.00	0.13-0.15	0.0-2.9	1.0-2.0	.32	.55	1	4	86
	6-19	10-18	1.35-1.55	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.15	.55			
	19-28	---	---	0.00-0.01	---	---	---	---	---			
	28-38	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1255: Dutchjohn-----	0-11	10-18	1.40-1.60	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.32	.37	3	5	56
	11-16	18-27	1.40-1.60	4.00-14.00	0.14-0.16	3.0-5.9	0.6-2.0	.49	.55			
	16-33	18-27	1.45-1.60	1.40-4.00	0.08-0.11	3.0-5.9	0.5-1.0	.43	.55			
	33-51	3-10	1.60-1.80	42.00-141.0	0.03-0.04	0.0-2.9	0.0-0.5	.32	.43			
	51-61	---	---	0.01-0.42	---	---	---	---	---			
Cleavage-----	0-7	15-25	1.15-1.35	4.00-14.00	0.15-0.17	0.0-2.9	1.0-3.0	.20	.37	1	7	38
	7-16	20-35	1.25-1.45	1.40-4.00	0.10-0.12	0.0-2.9	1.0-2.0	.10	.55			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
Bregar-----	0-2	15-25	1.15-1.25	4.00-14.00	0.07-0.10	0.0-2.9	1.0-2.0	.17	.55	1	7	38
	2-12	25-35	1.40-1.45	1.40-4.00	0.07-0.10	0.0-2.9	0.5-1.0	.05	.43			
	12-16	---	---	0.00-0.01	---	---	---	---	---			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
1260: Weso-----	0-5	5-18	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.49	.49	4	3	86
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			
Trocken-----	0-5	5-15	1.40-1.55	4.00-14.00	0.09-0.11	0.0-2.9	0.0-0.5	.32	.55	5	4	86
	5-60	8-18	1.50-1.70	4.00-14.00	0.05-0.08	0.0-2.9	0.0-0.5	.17	.32			
1271: Gol-----	0-5	12-18	1.30-1.50	14.00-42.00	0.06-0.09	0.0-2.9	1.0-2.0	.15	.24	2	5	56
	5-14	18-35	1.25-1.45	1.40-4.00	0.10-0.14	3.0-5.9	0.5-1.0	.10	.32			
	14-18	---	---	---	---	---	---	---	---			
Say-----	0-9	10-18	1.25-1.40	4.00-14.00	0.12-0.16	0.0-2.9	2.0-3.0	.24	.43	3	7	38
	9-24	18-25	1.30-1.50	4.00-14.00	0.12-0.15	3.0-5.9	0.5-2.0	.24	.55			
	24-34	4-15	1.40-1.55	14.00-42.00	0.04-0.08	0.0-2.9	0.0-0.5	.10	.24			
	34-38	---	---	0.01-0.42	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
1285: Igdell-----	0-7	20-27	1.05-1.20	4.00-14.00	0.12-0.15	3.0-5.9	1.0-2.0	.28	.37	2	7	38
	7-16	45-60	1.20-1.35	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.32	.49			
	16-21	20-35	1.25-1.45	4.00-14.00	0.13-0.17	3.0-5.9	1.0-2.0	.32	.43			
	21-42	---	---	0.00-0.01	---	---	---	---	---			
Gochea-----	0-11	10-20	1.30-1.50	4.00-14.00	0.08-0.13	0.0-2.9	1.0-2.0	.17	.37	4	6	48
	11-23	25-35	1.30-1.50	1.40-4.00	0.12-0.18	3.0-5.9	0.5-1.0	.17	.28			
	23-28	10-15	1.50-1.70	14.00-42.00	0.09-0.13	0.0-2.9	0.5-1.0	.28	.43			
	28-60	10-18	1.30-1.50	14.00-42.00	0.05-0.07	0.0-2.9	0.0-0.5	.10	.20			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
1291: Tresed-----	0-10	2-12	1.35-1.45	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.55	.55	5	2	134
	10-25	35-55	1.20-1.30	0.42-1.40	0.15-0.18	6.0-8.9	0.0-0.5	.32	.32			
	25-60	5-20	1.35-1.45	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.55	.55			
Isolde-----	0-3	0-5	1.40-1.60	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.28	.28	5	1	250
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.24	.24			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1292: Tressed-----	0-10	2-12	1.35-1.45	14.00-42.00	0.11-0.14	0.0-2.9	0.0-0.5	.55	.55	5	2	134
	10-25	35-55	1.20-1.30	0.42-1.40	0.15-0.18	6.0-8.9	0.0-0.5	.32	.32			
	25-60	5-20	1.35-1.45	4.00-14.00	0.15-0.17	0.0-2.9	0.0-0.5	.55	.55			
1310: Dewar-----	0-5	10-18	1.15-1.35	4.00-14.00	0.19-0.21	0.0-2.9	0.8-2.0	.55	.64	1	5	56
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.5-1.0	.37	.64			
	15-60	---	---	0.00-0.01	---	---	---	---	---			
Tenabo-----	0-9	5-15	1.35-1.55	4.00-14.00	0.16-0.18	0.0-2.9	0.0-0.5	.55	.55	1	3	86
	9-16	28-35	1.30-1.50	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.37	.49			
	16-22	---	---	0.00-0.01	---	---	---	---	---			
	22-60	5-10	1.45-1.65	14.00-141.0	0.03-0.07	0.0-2.9	0.0-0.5	.17	.32			
1312: Dewar-----	0-5	10-18	1.20-1.40	4.00-14.00	0.15-0.17	0.0-2.9	0.8-2.0	.55	.64	1	3	86
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.5-1.0	.37	.64			
	15-60	---	---	0.00-0.01	---	---	---	---	---			
Dacker-----	0-7	10-20	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	2	3	86
	7-18	27-35	1.25-1.45	1.40-4.00	0.16-0.19	3.0-5.9	0.5-1.0	.37	.49			
	18-22	18-25	1.25-1.45	4.00-14.00	0.09-0.19	0.0-2.9	0.0-0.1	.49	.64			
	22-26	---	---	0.00-0.01	---	---	---	---	---			
Dewar-----	0-5	10-18	1.20-1.40	4.00-14.00	0.15-0.17	0.0-2.9	0.8-2.0	.55	.64	1	3	86
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.5-1.0	.37	.64			
	15-60	---	---	0.00-0.01	---	---	---	---	---			
1313: Dewar-----	0-5	10-18	1.15-1.25	4.00-14.00	0.14-0.19	0.0-2.9	0.8-2.0	.43	.64	1	6	48
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.0-0.5	.37	.64			
	15-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	---	---	0.01-0.42	---	---	---	---	---			
Sodhouse-----	0-6	10-18	1.40-1.55	4.00-14.00	0.18-0.21	0.0-2.9	0.0-0.5	.55	.55	1	4L	86
	6-19	10-18	1.40-1.55	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.43	.49			
	19-42	---	---	0.00-0.01	---	---	---	---	---			
	42-60	5-15	1.45-1.65	14.00-42.00	0.07-0.09	0.0-2.9	0.0-0.5	.15	.28			
Midraw-----	0-4	18-27	1.20-1.40	4.00-14.00	0.10-0.16	3.0-5.9	1.0-2.0	.20	.37	1	7	38
	4-14	35-45	1.35-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
1314: Dewar-----	0-5	10-18	1.20-1.40	4.00-14.00	0.15-0.17	0.0-2.9	0.8-2.0	.55	.64	1	3	86
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.5-1.0	.37	.64			
	15-60	---	---	0.00-0.01	---	---	---	---	---			
Zevadez-----	0-9	10-25	1.20-1.40	4.00-14.00	0.11-0.15	3.0-5.9	1.0-2.0	.32	.55	5	6	48
	9-20	20-30	1.30-1.50	1.40-4.00	0.16-0.20	3.0-5.9	0.5-1.0	.24	.43			
	20-55	12-18	1.65-1.80	0.42-1.40	0.10-0.13	0.0-2.9	0.0-0.6	.37	.43			
	55-60	8-12	1.55-1.75	4.00-14.00	0.11-0.14	0.0-2.9	0.0-0.6	.32	.32			
1315: Dewar-----	0-5	10-18	1.20-1.40	4.00-14.00	0.12-0.17	0.0-2.9	0.8-2.0	.32	.64	1	4	86
	5-15	27-35	1.20-1.40	1.40-4.00	0.12-0.16	3.0-5.9	0.0-0.5	.37	.64			
	15-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	---	---	0.01-0.42	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Soughe-----	0-4 4-14 14-18	10-20 25-35 ---	1.30-1.45 1.20-1.40 ---	1.40-4.00 1.40-4.00 0.00-0.01	0.05-0.07 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	1.0-2.0 0.0-0.5 ---	.10 .15 ---	.32 .49 ---	1	7	38
1331: Siscab-----	0-3 3-12 12-16	5-10 27-35 ---	1.45-1.65 1.35-1.55 ---	14.00-42.00 1.40-4.00 0.01-0.42	0.04-0.07 0.14-0.17 ---	0.0-2.9 3.0-5.9 ---	2.0-3.0 1.0-2.0 ---	.05 .15 ---	.10 .28 ---	2	4	86
Aycab-----	0-2 2-24 24-28	10-18 10-18 ---	1.35-1.55 1.45-1.65 ---	14.00-42.00 14.00-42.00 0.01-0.42	0.07-0.09 0.07-0.09 ---	0.0-2.9 0.0-2.9 ---	2.0-4.0 0.5-1.0 ---	.10 .10 ---	.17 .17 ---	3	4	86
Ola-----	0-9 9-28 28-40 40-44	5-10 5-10 --- ---	1.40-1.60 1.55-1.70 --- ---	14.00-42.00 4.00-14.00 --- ---	0.07-0.09 0.07-0.11 --- ---	0.0-2.9 0.0-2.9 --- ---	2.0-4.0 1.0-2.0 --- ---	.05 .10 --- ---	.20 .17 --- ---	2	5	56
Cumelic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
1332: Siscab-----	0-3 3-12 12-16	5-10 27-35 ---	1.45-1.65 1.35-1.55 ---	14.00-42.00 1.40-4.00 0.01-0.42	0.04-0.07 0.14-0.17 ---	0.0-2.9 3.0-5.9 ---	2.0-3.0 1.0-2.0 ---	.05 .15 ---	.10 .28 ---	2	4	86
Ola-----	0-9 9-28 28-40 40-44	5-10 5-10 --- ---	1.40-1.60 1.55-1.70 --- ---	14.00-42.00 4.00-14.00 --- ---	0.07-0.09 0.07-0.11 --- ---	0.0-2.9 0.0-2.9 --- ---	2.0-4.0 1.0-2.0 --- ---	.05 .10 --- ---	.20 .17 --- ---	2	5	56
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
Cumelic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
1333: Siscab-----	0-3 3-12 12-16	8-18 27-35 ---	1.45-1.65 1.35-1.55 ---	14.00-42.00 1.40-4.00 0.01-0.42	0.08-0.10 0.14-0.17 ---	0.0-2.9 3.0-5.9 ---	2.0-3.0 1.0-2.0 ---	.10 .15 ---	.20 .28 ---	2	5	56
Say-----	0-9 9-24 24-34 34-38	10-18 18-25 4-15 ---	1.25-1.40 1.30-1.50 1.40-1.55 ---	4.00-14.00 4.00-14.00 14.00-42.00 0.01-0.42	0.12-0.16 0.12-0.15 0.04-0.08 ---	0.0-2.9 3.0-5.9 0.0-2.9 ---	2.0-3.0 0.5-2.0 0.0-0.5 ---	.24 .24 .10 ---	.43 .55 .24 ---	3	7	38
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
1334: Siscab-----	0-3 3-12 12-16	8-18 27-35 ---	1.45-1.65 1.35-1.55 ---	14.00-42.00 1.40-4.00 0.01-0.42	0.08-0.10 0.14-0.17 ---	0.0-2.9 3.0-5.9 ---	2.0-3.0 1.0-2.0 ---	.10 .15 ---	.20 .28 ---	2	5	56
Eaglerock-----	0-5 5-23 23-27	10-18 18-27 ---	1.30-1.50 1.30-1.50 ---	14.00-42.00 1.40-4.00 0.01-0.42	0.07-0.09 0.08-0.10 ---	0.0-2.9 0.0-2.9 ---	3.0-5.0 0.5-2.0 ---	.10 .10 ---	.32 .32 ---	3	5	56
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1335: Siscab-----	0-3	8-18	1.45-1.65	14.00-42.00	0.08-0.10	0.0-2.9	2.0-3.0	.10	.20	2	5	56
	3-12	27-35	1.35-1.55	1.40-4.00	0.14-0.17	3.0-5.9	1.0-2.0	.15	.28			
	12-16	---	---	0.01-0.42	---	---	---	---	---			
Westbutte-----	0-10	18-25	1.25-1.45	4.00-14.00	0.13-0.17	0.0-2.9	2.0-4.0	.20	.37	2	7	38
	10-33	18-25	1.30-1.50	4.00-14.00	0.09-0.13	0.0-2.9	2.0-3.0	.15	.37			
	33-37	---	---	---	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
Clementine-----	---	---	---	---	---	---	---	---	---	-	---	---
1341: Longcreek-----	0-3	20-27	1.45-1.55	4.00-14.00	0.07-0.09	0.0-2.9	1.0-4.0	.17	.37	1	7	38
	3-6	35-40	1.30-1.50	0.42-1.40	0.08-0.10	0.0-2.9	1.0-2.0	.17	.32			
	6-14	40-50	1.25-1.45	0.42-1.40	0.07-0.08	3.0-5.9	0.5-1.0	.15	.28			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Menbo-----	0-6	10-18	1.20-1.40	4.00-14.00	0.07-0.12	0.0-2.9	2.0-4.0	.10	.37	2	7	38
	6-26	35-50	1.35-1.55	0.42-1.40	0.06-0.10	6.0-8.9	1.0-2.0	.10	.37			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
1342: Longcreek-----	0-3	20-27	1.45-1.55	4.00-14.00	0.07-0.09	0.0-2.9	1.0-4.0	.17	.37	1	7	38
	3-6	35-40	1.30-1.50	0.42-1.40	0.08-0.10	0.0-2.9	1.0-2.0	.17	.32			
	6-14	40-50	1.25-1.45	0.42-1.40	0.07-0.08	3.0-5.9	0.5-1.0	.15	.28			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
Clementine-----	---	---	---	---	---	---	---	---	---	-	---	---
1344: Longcreek-----	0-3	20-27	1.45-1.55	4.00-14.00	0.07-0.09	0.0-2.9	1.0-4.0	.17	.37	1	7	38
	3-6	35-40	1.30-1.50	0.42-1.40	0.08-0.10	0.0-2.9	1.0-2.0	.17	.32			
	6-14	40-50	1.25-1.45	0.42-1.40	0.07-0.08	3.0-5.9	0.5-1.0	.15	.28			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Softscrabble----	0-8	10-20	1.20-1.40	4.00-14.00	0.08-0.10	0.0-2.9	1.0-5.0	.15	.43	5	7	38
	8-60	27-35	1.25-1.45	1.40-4.00	0.08-0.10	3.0-5.9	1.0-2.0	.20	.43			
Anawalt-----	0-2	18-27	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-2.0	.10	.43	1	7	38
	2-16	35-60	1.25-1.45	0.42-1.40	0.11-0.17	6.0-8.9	0.5-1.0	.28	.43			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
1345: Longcreek-----	0-3	20-27	1.45-1.55	4.00-14.00	0.08-0.10	0.0-2.9	1.0-4.0	.15	.37	1	7	38
	3-6	35-40	1.30-1.50	0.42-1.40	0.08-0.10	0.0-2.9	1.0-2.0	.17	.32			
	6-14	40-50	1.25-1.45	0.42-1.40	0.07-0.08	3.0-5.9	0.5-1.0	.15	.28			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Zymans-----	0-4	15-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.20	.43	4	7	38
	4-37	45-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	0.5-2.0	.24	.28			
	37-56	35-60	1.25-1.45	0.42-1.40	0.14-0.21	6.0-8.9	0.3-1.0	.24	.43			
	56-60	---	---	0.01-0.42	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1360:												
Midraw-----	0-4	18-25	1.20-1.40	4.00-14.00	0.14-0.16	3.0-5.9	1.0-2.0	.24	.43	1	7	38
	4-14	35-45	1.35-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
Midraw-----	0-4	10-18	1.35-1.55	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.49	.49	1	3	86
	4-14	35-45	1.30-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
1362:												
Midraw-----	0-4	10-18	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	1.0-2.0	.55	.64	1	5	56
	4-14	35-45	1.30-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
Midraw-----	0-4	18-27	1.20-1.40	4.00-14.00	0.10-0.16	3.0-5.9	1.0-2.0	.20	.37	1	7	38
	4-14	35-45	1.35-1.50	0.42-1.40	0.14-0.16	6.0-8.9	0.0-0.6	.20	.37			
	14-28	---	---	0.00-0.01	---	---	---	---	---			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
Hunnton-----	0-6	10-18	1.30-1.45	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.64	2	3	86
	6-12	20-35	1.25-1.45	1.40-4.00	0.16-0.20	3.0-5.9	0.0-0.5	.49	.55			
	12-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.0-0.5	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	36-60	2-10	1.55-1.70	14.00-42.00	0.03-0.05	0.0-2.9	0.0-0.5	.05	.28			
1371:												
Devada-----	0-8	18-25	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-3.0	.17	.55	1	7	38
	8-17	40-60	1.25-1.45	0.42-1.40	0.10-0.16	6.0-8.9	0.5-2.0	.15	.43			
	17-27	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-8	18-25	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-3.0	.17	.55	1	7	38
	8-17	40-60	1.25-1.45	0.42-1.40	0.10-0.16	6.0-8.9	0.5-2.0	.15	.43			
	17-27	---	---	0.00-0.01	---	---	---	---	---			
Vanwyper-----	0-7	18-25	1.10-1.25	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.17	.43	2	7	38
	7-27	35-55	1.30-1.50	0.42-1.40	0.07-0.10	3.0-5.9	0.5-1.0	.10	.43			
	27-31	---	---	0.00-0.01	---	---	---	---	---			
1373:												
Devada-----	0-8	18-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.28	.49	1	7	38
	8-17	40-60	1.25-1.45	0.42-1.40	0.10-0.16	6.0-8.9	0.5-2.0	.15	.43			
	17-27	---	---	0.00-0.01	---	---	---	---	---			
Zymans-----	0-4	15-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.20	.37	4	7	38
	4-37	45-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	0.5-2.0	.24	.28			
	37-56	35-60	1.25-1.45	0.42-1.40	0.14-0.21	6.0-8.9	0.0-0.5	.24	.43			
	56-60	---	---	0.01-0.42	---	---	---	---	---			
Devada-----	0-8	10-18	1.30-1.50	14.00-42.00	0.04-0.07	0.0-2.9	1.0-3.0	.05	.32	1	8	0
	8-17	40-60	1.25-1.45	0.42-1.40	0.10-0.16	6.0-8.9	0.5-2.0	.15	.43			
	17-27	---	---	0.00-0.01	---	---	---	---	---			
1380:												
Genaw-----	0-5	15-25	1.30-1.50	4.00-14.00	0.19-0.21	0.0-2.9	1.0-2.0	.49	.55	2	6	48
	5-10	18-30	1.25-1.45	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.24	.43			
	10-18	15-24	1.35-1.55	4.00-14.00	0.09-0.14	0.0-2.9	0.0-0.5	.15	.43			
	18-22	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
1410: Say-----	0-9	10-18	1.25-1.40	4.00-14.00	0.13-0.15	0.0-2.9	2.0-3.0	.24	.32	3	6	48
	9-24	18-25	1.30-1.50	4.00-14.00	0.12-0.15	3.0-5.9	0.5-2.0	.24	.55			
	24-34	4-15	1.40-1.55	14.00-42.00	0.04-0.08	0.0-2.9	0.0-0.5	.10	.24			
	34-38	---	---	0.01-0.42	---	---	---	---	---			
Tosp-----	0-2	10-18	1.25-1.35	14.00-42.00	0.16-0.20	0.0-2.9	3.0-5.0	.24	.32	3	5	56
	2-34	10-18	1.35-1.50	14.00-42.00	0.12-0.14	0.0-2.9	2.0-4.0	.28	.37			
	34-51	10-18	1.35-1.50	14.00-42.00	0.08-0.14	0.0-2.9	1.0-2.0	.20	.24			
	51-55	---	---	0.00-0.01	---	---	---	---	---			
Aycab-----	0-2	10-18	1.35-1.55	4.00-14.00	0.13-0.15	0.0-2.9	2.0-3.0	.24	.37	3	6	48
	2-24	10-18	1.45-1.65	14.00-42.00	0.07-0.09	0.0-2.9	1.0-2.0	.10	.17			
	24-28	---	---	0.01-0.42	---	---	---	---	---			
1411: Say-----	0-9	10-18	1.25-1.40	4.00-14.00	0.13-0.15	0.0-2.9	2.0-3.0	.24	.32	3	6	48
	9-24	18-25	1.30-1.50	4.00-14.00	0.12-0.15	3.0-5.9	0.5-2.0	.24	.55			
	24-34	4-15	1.40-1.55	14.00-42.00	0.04-0.08	0.0-2.9	0.0-0.5	.10	.24			
	34-38	---	---	0.01-0.42	---	---	---	---	---			
Aycab-----	0-2	10-18	1.35-1.55	4.00-14.00	0.13-0.15	0.0-2.9	2.0-3.0	.24	.37	3	6	48
	2-24	10-18	1.45-1.65	14.00-42.00	0.07-0.09	0.0-2.9	1.0-2.0	.10	.17			
	24-28	---	---	0.01-0.42	---	---	---	---	---			
1420: Panlee-----	0-10	8-15	1.35-1.50	14.00-42.00	0.11-0.15	0.0-2.9	0.8-2.0	.28	.55	3	4	86
	10-42	8-15	1.40-1.60	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.17	.64			
	42-45	---	---	0.00-0.01	---	---	---	---	---			
	45-55	---	---	0.00-0.01	---	---	---	---	---			
Panlee-----	0-10	8-15	1.35-1.50	14.00-42.00	0.08-0.12	0.0-2.9	0.8-2.0	.17	.64	3	5	56
	10-42	8-15	1.40-1.60	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.5	.17	.64			
	42-45	---	---	0.00-0.01	---	---	---	---	---			
	45-55	---	---	0.00-0.01	---	---	---	---	---			
Burrita-----	0-7	12-18	1.15-1.35	4.00-14.00	0.13-0.16	0.0-2.9	0.8-2.0	.32	.43	1	6	48
	7-14	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-2.0	.10	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
1421: Panlee-----	0-10	8-15	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	0.8-2.0	.49	.55	3	3	86
	10-42	8-15	1.40-1.60	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.17	.64			
	42-45	---	---	0.00-0.01	---	---	---	---	---			
	45-55	---	---	0.00-0.01	---	---	---	---	---			
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
Soughe-----	0-4	10-20	1.35-1.50	4.00-14.00	0.11-0.13	0.0-2.9	1.0-2.0	.24	.49	1	6	48
	4-14	25-35	1.30-1.50	1.40-4.00	0.08-0.11	3.0-5.9	0.5-1.0	.15	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
1423: Panlee-----	0-10	8-15	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	0.8-2.0	.49	.55	3	3	86
	10-42	8-15	1.40-1.60	4.00-14.00	0.07-0.12	0.0-2.9	0.0-0.6	.17	.64			
	42-45	---	---	0.00-0.01	---	---	---	---	---			
	45-55	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
Vanwyper-----	0-7	18-25	1.10-1.25	4.00-14.00	0.09-0.12	0.0-2.9	1.0-2.0	.17	.43	2	7	38
	7-27	35-55	1.30-1.50	0.42-1.40	0.07-0.10	3.0-5.9	0.5-1.0	.10	.43			
	27-31	---	---	0.00-0.01	---	---	---	---	---			
Carstump-----	0-2	10-18	1.15-1.35	14.00-42.00	0.14-0.17	0.0-2.9	1.0-3.0	.43	.49	2	3	86
	2-9	15-25	1.20-1.40	4.00-14.00	0.11-0.15	0.0-2.9	1.0-2.0	.28	.49			
	9-28	40-55	1.20-1.40	0.42-1.40	0.08-0.10	3.0-5.9	0.0-0.5	.20	.43			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
1431: Hunnton-----	0-6	20-27	1.10-1.25	4.00-14.00	0.09-0.12	3.0-5.9	1.0-2.0	.43	.43	2	7	38
	6-22	45-55	1.20-1.40	0.42-1.40	0.10-0.16	6.0-8.9	0.5-1.0	.28	.37			
	22-36	---	---	0.00-0.01	---	---	---	---	---			
	>36	---	---	0.42-14.00	---	---	---	---	---			
Rodock-----	0-2	8-15	1.40-1.60	14.00-42.00	0.07-0.09	0.0-2.9	1.0-3.0	.17	.32	4	4	86
	2-20	15-25	1.40-1.60	4.00-14.00	0.11-0.18	0.0-2.9	0.5-2.0	.28	.43			
	20-27	8-15	1.45-1.65	1.40-4.00	0.05-0.12	0.0-2.9	0.5-1.0	.17	.32			
	27-60	0-5	1.45-1.65	14.00-42.00	0.03-0.06	0.0-2.9	0.0-0.5	.02	.20			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	---	---	---
1432: Rodock-----	0-2	10-18	1.35-1.55	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.32	.37	4	5	56
	2-20	15-25	1.40-1.60	4.00-14.00	0.11-0.18	0.0-2.9	0.5-3.0	.28	.43			
	20-27	8-15	1.45-1.65	1.40-4.00	0.05-0.12	0.0-2.9	0.5-1.0	.17	.32			
	27-60	0-5	1.45-1.65	14.00-42.00	0.03-0.06	0.0-2.9	0.0-0.5	.02	.20			
Connel-----	0-6	10-15	1.30-1.50	4.00-14.00	0.15-0.17	0.0-2.9	1.0-2.0	.43	.49	3	3	86
	6-20	12-18	1.35-1.55	4.00-14.00	0.16-0.21	0.0-2.9	0.0-0.6	.28	.43			
	20-60	2-8	1.50-1.65	42.00-141.0	0.03-0.05	0.0-2.9	0.0-0.5	.02	.10			
1433: Rodock-----	0-2	8-15	1.40-1.60	14.00-42.00	0.07-0.09	0.0-2.9	1.0-3.0	.17	.32	4	4	86
	2-20	15-25	1.40-1.60	4.00-14.00	0.11-0.18	0.0-2.9	0.5-2.0	.28	.43			
	20-27	8-15	1.45-1.65	1.40-4.00	0.05-0.12	0.0-2.9	0.5-1.0	.17	.32			
	27-60	0-5	1.45-1.65	14.00-42.00	0.03-0.06	0.0-2.9	0.0-0.5	.02	.20			
1436: Rodock-----	0-2	10-18	1.35-1.55	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.32	.37	4	5	56
	2-20	15-25	1.40-1.60	4.00-14.00	0.11-0.18	0.0-2.9	0.5-3.0	.28	.43			
	20-27	8-15	1.45-1.65	1.40-4.00	0.05-0.12	0.0-2.9	0.5-1.0	.17	.32			
	27-60	0-5	1.45-1.65	14.00-42.00	0.03-0.06	0.0-2.9	0.0-0.5	.02	.20			
1437: Rodock-----	0-2	8-15	1.40-1.60	4.00-14.00	0.15-0.17	0.0-2.9	1.0-3.0	.43	.43	4	3	86
	2-20	15-25	1.40-1.60	4.00-14.00	0.11-0.18	0.0-2.9	0.5-2.0	.28	.43			
	20-27	8-15	1.45-1.65	1.40-4.00	0.05-0.12	0.0-2.9	0.5-1.0	.17	.32			
	27-60	0-5	1.45-1.65	14.00-42.00	0.03-0.06	0.0-2.9	0.0-0.5	.02	.20			
1450: Wiskan-----	0-11	10-20	1.35-1.50	4.00-14.00	0.09-0.11	0.0-2.9	1.0-2.0	.17	.55	2	7	38
	11-26	25-35	1.40-1.60	1.40-4.00	0.08-0.10	0.0-2.9	0.0-0.5	.15	.43			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
Climine-----	0-8	15-20	1.20-1.40	4.00-14.00	0.15-0.17	0.0-2.9	2.0-5.0	.32	.37	5	3	86
	8-18	18-27	1.20-1.40	4.00-14.00	0.13-0.18	0.0-2.9	1.0-3.0	.28	.43			
	18-41	18-27	1.40-1.60	4.00-14.00	0.06-0.13	0.0-2.9	0.5-2.0	.15	.49			
	41-60	18-35	1.40-1.60	4.00-14.00	0.06-0.08	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	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1460:												
Ninemile-----	0-2	20-27	1.35-1.50	4.00-14.00	0.13-0.15	0.0-2.9	1.0-2.0	.28	.49	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.28	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Anawalt-----	0-2	18-27	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-2.0	.10	.43	1	7	38
	2-16	35-60	1.25-1.45	0.42-1.40	0.11-0.17	6.0-8.9	0.5-1.0	.28	.43			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
Reluctan-----	0-9	15-22	1.15-1.35	4.00-14.00	0.11-0.14	0.0-2.9	2.0-4.0	.24	.43	2	6	48
	9-38	25-35	1.35-1.55	1.40-4.00	0.12-0.15	3.0-5.9	0.5-2.0	.24	.43			
	38-42	---	---	0.00-0.01	---	---	---	---	---			
1461:												
Ninemile-----	0-2	10-20	1.15-1.35	4.00-14.00	0.07-0.12	0.0-2.9	1.0-3.0	.15	.43	1	7	38
	2-14	40-60	1.20-1.40	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.20	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Tusel-----	0-22	10-20	1.20-1.40	4.00-14.00	0.09-0.15	0.0-2.9	2.0-5.0	.20	.37	3	6	48
	22-46	25-35	1.25-1.45	1.40-4.00	0.08-0.11	3.0-5.9	0.5-2.0	.20	.43			
	46-50	---	---	0.00-0.01	---	---	---	---	---			
Alyan-----	0-17	18-27	1.10-1.25	4.00-14.00	0.13-0.15	3.0-5.9	2.0-3.0	.20	.37	2	7	38
	17-39	40-55	1.15-1.35	0.42-1.40	0.12-0.14	6.0-8.9	0.5-1.0	.15	.28			
	39-43	---	---	0.00-0.01	---	---	---	---	---			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
1462:												
Ninemile-----	0-2	20-27	1.35-1.50	4.00-14.00	0.13-0.15	3.0-5.9	1.0-2.0	.28	.49	1	7	38
	2-14	40-60	1.25-1.45	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.28	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Anawalt-----	0-2	18-27	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-2.0	.10	.43	1	7	38
	2-16	35-60	1.25-1.45	0.42-1.40	0.11-0.17	6.0-8.9	0.5-1.0	.28	.43			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
Anawalt-----	0-2	18-27	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-2.0	.10	.43	1	7	38
	2-16	35-60	1.25-1.45	0.42-1.40	0.11-0.17	6.0-8.9	0.5-1.0	.28	.43			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
1464:												
Anawalt-----	0-2	18-27	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-2.0	.10	.43	1	7	38
	2-16	35-60	1.25-1.45	0.42-1.40	0.11-0.17	6.0-8.9	0.5-1.0	.28	.43			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
Ninemile-----	0-2	10-20	1.15-1.35	4.00-14.00	0.07-0.12	0.0-2.9	1.0-3.0	.15	.43	1	7	38
	2-14	40-60	1.20-1.40	0.01-0.42	0.14-0.16	6.0-8.9	1.0-2.0	.20	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Sumine-----	0-6	15-20	1.20-1.40	4.00-14.00	0.12-0.14	0.0-2.9	2.0-5.0	.28	.32	2	7	38
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-32	---	---	0.00-0.01	---	---	---	---	---			
Cumulic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
1465: Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	1.15-1.35 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.12-0.14 0.10-0.12 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 1.0-2.0 ---	.10 .10 ---	.43 .55 ---	1	7	38
Ninemile-----	0-2 2-14 14-18	10-20 40-60 ---	1.15-1.35 1.20-1.40 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.07-0.12 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-3.0 1.0-2.0 ---	.15 .20 ---	.43 .37 ---	1	7	38
Tusel-----	0-22 22-46 46-50	10-20 25-35 ---	1.20-1.40 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.15 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	2.0-5.0 0.5-2.0 ---	.20 .20 ---	.37 .43 ---	3	6	48
1466: Ninemile-----	0-2 2-14 14-18	20-27 40-60 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.13-0.15 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 1.0-2.0 ---	.28 .28 ---	.49 .37 ---	1	7	38
Bullump-----	0-13 13-23 23-52 52-56	15-25 15-25 25-35 ---	1.10-1.20 1.10-1.20 1.35-1.45 ---	4.00-14.00 4.00-14.00 1.40-4.00 0.00-0.01	0.10-0.15 0.08-0.12 0.09-0.14 ---	0.0-2.9 0.0-2.9 0.0-2.9 ---	2.0-5.0 0.5-2.0 0.5-1.0 ---	.20 .15 .10 ---	.37 .49 .32 ---	3	7	38
Tusel-----	0-22 22-46 46-50	10-20 25-35 ---	1.20-1.40 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.15 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	2.0-5.0 0.5-2.0 ---	.20 .20 ---	.37 .43 ---	3	6	48
1467: Ninemile-----	0-2 2-14 14-24	15-25 40-60 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.08-0.11 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	2.0-4.0 1.0-3.0 ---	.15 .28 ---	.55 .37 ---	1	7	38
Udelope-----	0-2 2-10 10-18 18-22	7-18 8-18 8-18 ---	1.40-1.60 1.45-1.65 1.45-1.65 ---	4.00-14.00 14.00-42.00 14.00-42.00 0.00-0.01	0.11-0.13 0.11-0.13 0.05-0.07 ---	0.0-2.9 0.0-2.9 0.0-2.9 ---	1.0-3.0 1.0-3.0 1.0-3.0 ---	.32 .32 .24 ---	.37 .32 .32 ---	1	4	86
Tusel-----	0-22 22-46 46-50	10-20 25-35 ---	1.20-1.40 1.25-1.45 ---	4.00-14.00 1.40-4.00 0.00-0.01	0.09-0.15 0.08-0.11 ---	0.0-2.9 3.0-5.9 ---	2.0-5.0 0.5-2.0 ---	.20 .20 ---	.37 .43 ---	3	6	48
1468: Ninemile-----	0-2 2-14 14-24	15-25 40-60 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.08-0.11 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	2.0-4.0 1.0-3.0 ---	.15 .28 ---	.55 .37 ---	1	7	38
Softscrabble---	0-8 8-60	10-20 27-35	1.20-1.40 1.25-1.45	4.00-14.00 0.42-1.40	0.14-0.16 0.10-0.13	0.0-2.9 0.0-2.9	1.0-3.0 1.0-2.0	.20 .10	.37 .37	5	6	48
Ninemile-----	0-2 2-14 14-18	20-27 40-60 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.13-0.15 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	1.0-2.0 1.0-2.0 ---	.28 .28 ---	.49 .37 ---	1	7	38
1469: Ninemile-----	0-2 2-14 14-24	15-25 40-60 ---	1.35-1.50 1.25-1.45 ---	4.00-14.00 0.01-0.42 0.00-0.01	0.08-0.11 0.14-0.16 ---	0.0-2.9 6.0-8.9 ---	2.0-4.0 1.0-3.0 ---	.15 .28 ---	.55 .37 ---	1	7	38
Softscrabble---	0-8 8-60	10-20 27-35	1.20-1.40 1.25-1.45	4.00-14.00 0.42-1.40	0.14-0.16 0.10-0.13	0.0-2.9 0.0-2.9	1.0-3.0 1.0-2.0	.20 .10	.37 .37	5	6	48

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth In	Clay Pct	Moist bulk density g/cc	Ksat um/sec	Available water capacity In/in	Shrink- swell potential Pct	Organic matter Pct	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
Sumine-----	0-6	10-20	1.20-1.40	4.00-14.00	0.08-0.11	0.0-2.9	2.0-4.0	.15	.43	2	7	38
	6-28	25-35	1.40-1.60	4.00-14.00	0.10-0.13	0.0-2.9	0.5-3.0	.15	.55			
	28-38	---	---	0.00-0.01	---	---	---	---	---			
1470: Zymans-----	0-4	15-25	1.30-1.50	4.00-14.00	0.07-0.12	0.0-2.9	1.0-3.0	.15	.55	4	7	38
	4-37	45-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	0.5-2.0	.24	.28			
	37-56	35-60	1.25-1.45	0.42-1.40	0.14-0.21	6.0-8.9	0.3-1.0	.24	.43			
	56-60	---	---	0.01-0.42	---	---	---	---	---			
Burrita-----	0-7	12-18	1.15-1.35	4.00-14.00	0.13-0.16	0.0-2.9	0.8-2.0	.32	.43	1	6	48
	7-14	35-50	1.25-1.45	0.42-1.40	0.07-0.09	3.0-5.9	0.5-2.0	.10	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Devada-----	0-8	10-18	1.30-1.50	14.00-42.00	0.04-0.07	0.0-2.9	1.0-3.0	.05	.32	1	8	0
	8-17	40-60	1.25-1.45	0.42-1.40	0.10-0.16	6.0-8.9	0.5-2.0	.15	.43			
	17-27	---	---	0.00-0.01	---	---	---	---	---			
1471: Zymans-----	0-4	15-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.20	.37	4	7	38
	4-37	45-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	0.5-2.0	.24	.28			
	37-56	35-60	1.25-1.45	0.42-1.40	0.14-0.21	6.0-8.9	0.0-0.5	.24	.43			
	56-60	---	---	0.01-0.42	---	---	---	---	---			
Burrita-----	0-7	12-18	1.35-1.50	4.00-14.00	0.05-0.07	0.0-2.9	0.8-2.0	.10	.43	1	8	0
	7-14	35-50	1.25-1.45	0.42-1.40	0.09-0.12	3.0-5.9	0.5-2.0	.10	.49			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
Soughe-----	0-4	10-20	1.30-1.45	1.40-4.00	0.05-0.07	0.0-2.9	1.0-2.0	.10	.32	1	7	38
	4-14	25-35	1.20-1.40	1.40-4.00	0.08-0.11	3.0-5.9	0.0-0.5	.15	.49			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
1472: Zymans-----	0-4	15-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.20	.37	4	7	38
	4-37	45-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	0.5-2.0	.24	.28			
	37-56	35-60	1.25-1.45	0.42-1.40	0.14-0.21	6.0-8.9	0.0-0.5	.24	.43			
	56-60	---	---	0.01-0.42	---	---	---	---	---			
Zymans-----	0-4	15-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.20	.43	4	7	38
	4-37	45-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	0.5-2.0	.24	.28			
	37-56	35-60	1.25-1.45	0.42-1.40	0.14-0.21	6.0-8.9	0.3-1.0	.24	.43			
	56-60	---	---	0.01-0.42	---	---	---	---	---			
Burrita-----	0-7	12-18	1.35-1.50	4.00-14.00	0.08-0.10	0.0-2.9	0.8-2.0	.15	.49	1	7	38
	7-14	35-50	1.25-1.45	0.42-1.40	0.09-0.12	3.0-5.9	0.5-2.0	.10	.49			
	14-24	---	---	0.00-0.01	---	---	---	---	---			
1473: Zymans-----	0-4	15-25	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.20	.37	4	7	38
	4-37	45-60	1.25-1.45	0.42-1.40	0.14-0.16	6.0-8.9	0.5-2.0	.24	.28			
	37-56	35-60	1.25-1.45	0.42-1.40	0.14-0.21	6.0-8.9	0.0-0.5	.24	.43			
	56-60	---	---	0.01-0.42	---	---	---	---	---			
Genaw-----	0-5	12-18	1.35-1.50	4.00-14.00	0.16-0.18	0.0-2.9	1.0-2.0	.37	.49	2	5	56
	5-10	18-30	1.25-1.45	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.24	.43			
	10-18	15-24	1.35-1.55	4.00-14.00	0.06-0.14	0.0-2.9	0.0-0.5	.15	.43			
	18-22	---	---	0.01-0.42	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1520:												
Croesus-----	0-3	10-18	1.30-1.45	4.00-14.00	0.06-0.10	0.0-2.9	2.0-4.0	.10	.37	2	7	38
	3-33	10-18	1.30-1.45	4.00-14.00	0.03-0.07	0.0-2.9	1.0-3.0	.05	.32			
	33-37	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---			
1521:												
Croesus-----	0-3	10-18	1.30-1.45	4.00-14.00	0.06-0.10	0.0-2.9	2.0-4.0	.10	.43	2	6	48
	3-33	10-18	1.30-1.45	4.00-14.00	0.03-0.07	0.0-2.9	1.0-3.0	.05	.32			
	33-37	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---			
1522:												
Croesus-----	0-3	10-18	1.30-1.45	4.00-14.00	0.06-0.10	0.0-2.9	2.0-4.0	.10	.37	2	7	38
	3-33	10-18	1.30-1.45	4.00-14.00	0.03-0.07	0.0-2.9	1.0-3.0	.05	.32			
	33-37	---	---	0.00-0.01	---	---	---	---	---			
Harcany-----	0-4	5-10	1.20-1.40	4.00-14.00	0.13-0.15	0.0-2.9	3.0-5.0	.24	.43	5	6	48
	4-18	5-10	1.20-1.40	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.15	.49			
	18-72	10-15	1.30-1.50	14.00-42.00	0.10-0.12	0.0-2.9	0.5-2.0	.10	.32			
Rock Outcrop----	---	---	---	---	---	---	---	---	---			
1523:												
Croesus-----	0-3	10-18	1.30-1.45	4.00-14.00	0.06-0.10	0.0-2.9	2.0-4.0	.10	.37	2	7	38
	3-33	10-18	1.30-1.45	4.00-14.00	0.03-0.07	0.0-2.9	1.0-3.0	.05	.32			
	33-37	---	---	0.00-0.01	---	---	---	---	---			
Udelope-----	0-2	7-18	1.40-1.60	4.00-14.00	0.09-0.12	0.0-2.9	1.0-3.0	.32	.37	1	5	56
	2-10	8-18	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	1.0-3.0	.32	.32			
	10-18	8-18	1.45-1.65	14.00-42.00	0.05-0.07	0.0-2.9	1.0-3.0	.24	.32			
	18-22	---	---	0.00-0.01	---	---	---	---	---			
Layview-----	0-8	14-20	1.25-1.45	4.00-14.00	0.07-0.10	0.0-2.9	1.0-5.0	.10	.32	1	7	38
	8-14	22-35	1.30-1.50	1.40-4.00	0.08-0.10	0.0-2.9	1.0-2.0	.10	.32			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
1524:												
Croesus-----	0-3	10-18	1.30-1.45	4.00-14.00	0.06-0.10	0.0-2.9	2.0-4.0	.10	.43	2	6	48
	3-33	10-18	1.30-1.45	4.00-14.00	0.03-0.07	0.0-2.9	1.0-3.0	.05	.32			
	33-37	---	---	0.00-0.01	---	---	---	---	---			
Spinlin-----	0-6	18-25	1.15-1.25	4.00-14.00	0.14-0.16	0.0-2.9	1.0-3.0	.17	.37	3	7	38
	6-36	45-60	1.10-1.15	0.42-1.40	0.11-0.13	6.0-8.9	0.5-2.0	.10	.37			
	36-46	---	---	0.01-0.42	---	---	---	---	---			
Cumulic Cryaquolls----	---	---	---	---	---	---	---	---	---			
1530:												
Westbutte-----	0-10	18-25	1.25-1.45	4.00-14.00	0.13-0.17	0.0-2.9	2.0-4.0	.20	.37	2	7	38
	10-33	18-25	1.30-1.50	4.00-14.00	0.09-0.13	0.0-2.9	2.0-3.0	.15	.37			
	33-37	---	---	---	---	---	---	---	---			
1540:												
Locane-----	0-3	15-25	1.35-1.55	4.00-14.00	0.07-0.12	0.0-2.9	1.0-2.0	.10	.37	1	7	38
	3-17	35-50	1.30-1.50	0.42-1.40	0.08-0.13	3.0-5.9	0.0-0.6	.10	.28			
	17-21	---	---	0.00-0.01	---	---	---	---	---			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1551: Charwell-----	0-8	18-27	1.35-1.55	4.00-14.00	0.10-0.15	3.0-5.9	1.0-3.0	.24	.49	2	7	38
	8-18	60-70	1.10-1.30	0.01-0.42	0.07-0.10	6.0-8.9	0.0-1.0	.15	.37			
	18-22	18-35	1.45-1.65	0.42-1.40	0.06-0.12	0.0-2.9	0.0-0.5	.10	.32			
	22-23	---	---	0.00-0.01	---	---	---	---	---			
	23-27	---	---	0.00-0.01	---	---	---	---	---			
Anawalt-----	0-2	18-27	1.30-1.50	4.00-14.00	0.10-0.15	3.0-5.9	1.0-2.0	.20	.32	1	7	38
	2-16	35-60	1.25-1.45	0.42-1.40	0.11-0.17	6.0-8.9	0.5-1.0	.28	.43			
	16-20	---	---	---	---	---	---	---	---			
Anawalt-----	0-2	18-27	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-2.0	.10	.43	1	7	38
	2-16	35-60	1.25-1.45	0.42-1.40	0.11-0.17	6.0-8.9	0.5-1.0	.28	.43			
	16-20	---	---	0.00-0.01	---	---	---	---	---			
1560: Menbo-----	0-6	10-18	1.20-1.40	4.00-14.00	0.07-0.12	0.0-2.9	2.0-4.0	.10	.37	2	7	38
	6-26	35-50	1.35-1.55	0.42-1.40	0.06-0.10	6.0-8.9	1.0-2.0	.10	.37			
	26-30	---	---	0.00-0.01	---	---	---	---	---			
Rock Outcrop----	---	---	---	---	---	---	---	---	---	-	---	---
1561: Menbo-----	0-6	15-25	1.25-1.45	4.00-14.00	0.08-0.10	0.0-2.9	2.0-4.0	.15	.37	2	7	38
	6-26	35-50	1.35-1.55	0.42-1.40	0.06-0.10	6.0-8.9	1.0-2.0	.10	.37			
	26-30	---	---	---	---	---	---	---	---			
Madeline-----	0-10	20-27	1.20-1.35	4.00-14.00	0.10-0.12	3.0-5.9	2.0-3.0	.17	.32	1	7	38
	10-14	40-60	1.20-1.35	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.15	.37			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Tusel-----	0-16	10-20	1.20-1.40	4.00-14.00	0.13-0.15	0.0-2.9	2.0-5.0	.20	.37	3	6	48
	16-46	25-35	1.25-1.45	1.40-4.00	0.08-0.11	3.0-5.9	0.5-2.0	.20	.43			
	46-50	---	---	0.00-0.01	---	---	---	---	---			
Cumelic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
1562: Devada-----	0-8	18-25	1.30-1.50	4.00-14.00	0.06-0.10	0.0-2.9	1.0-3.0	.17	.55	1	7	38
	8-17	40-60	1.25-1.45	0.42-1.40	0.10-0.16	6.0-8.9	0.5-2.0	.15	.43			
	17-27	---	---	0.00-0.01	---	---	---	---	---			
Menbo-----	0-6	15-25	1.25-1.45	4.00-14.00	0.08-0.10	0.0-2.9	2.0-4.0	.15	.37	2	7	38
	6-26	35-50	1.35-1.55	0.42-1.40	0.06-0.10	6.0-8.9	1.0-2.0	.10	.37			
	26-30	---	---	---	---	---	---	---	---			
Longcreek-----	0-3	20-27	1.45-1.55	4.00-14.00	0.08-0.10	0.0-2.9	1.0-4.0	.15	.37	1	7	38
	3-6	35-40	1.30-1.50	0.42-1.40	0.08-0.10	0.0-2.9	1.0-2.0	.17	.32			
	6-14	40-50	1.25-1.45	0.42-1.40	0.07-0.08	3.0-5.9	0.5-1.0	.15	.28			
	14-18	---	---	0.00-0.01	---	---	---	---	---			
Cumelic Haplaquolls----	---	---	---	---	---	---	---	---	---	-	---	---
1570: Delvada-----	0-6	40-50	1.05-1.25	0.42-1.40	0.15-0.17	6.0-8.9	3.0-5.0	.32	.32	5	4	86
	6-55	40-50	1.20-1.40	0.01-0.42	0.15-0.17	6.0-8.9	0.5-2.0	.32	.32			
	55-60	30-50	1.25-1.45	0.01-0.42	0.16-0.20	6.0-8.9	0.3-1.0	.37	.37			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink- swell potential	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1572: Delvada-----	0-6	30-40	1.10-1.30	0.42-1.40	0.19-0.21	6.0-8.9	3.0-5.0	.43	.43	5	4L	86
	6-55	40-50	1.20-1.40	0.01-0.42	0.15-0.17	6.0-8.9	0.5-2.0	.32	.32			
	55-60	30-50	1.25-1.45	0.01-0.42	0.16-0.20	6.0-8.9	0.3-1.0	.37	.37			
1579: Delvada-----	0-6	30-40	1.10-1.30	0.42-1.40	0.19-0.21	6.0-8.9	3.0-5.0	.43	.43	5	4L	86
	6-55	40-50	1.20-1.40	0.01-0.42	0.15-0.17	6.0-8.9	0.5-2.0	.32	.32			
	55-60	30-50	1.25-1.45	0.01-0.42	0.16-0.20	6.0-8.9	0.3-1.0	.37	.37			
1580: Isolde-----	0-3	0-5	1.40-1.60	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.28	.28	5	1	250
	3-60	0-5	1.50-1.70	141.0-705.0	0.06-0.09	0.0-2.9	0.0-0.5	.24	.24			
Essal-----	0-18	15-25	1.45-1.65	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.64	.64	3	4L	86
	18-34	5-12	1.50-1.70	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.5	.55	.55			
	34-60	2-5	1.60-1.80	42.00-141.0	0.07-0.09	0.0-2.9	0.0-0.5	.20	.20			
Essal-----	0-2	2-5	1.55-1.75	42.00-141.0	0.09-0.10	0.0-2.9	0.0-0.5	.15	.15	3	2	134
	2-34	8-18	1.50-1.70	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.55	.55			
	34-60	2-8	1.60-1.80	42.00-141.0	0.06-0.08	0.0-2.9	0.0-0.5	.20	.20			
1594: Boton-----	0-15	12-18	1.25-1.45	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55	5	4L	86
	15-21	18-27	1.40-1.60	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
	21-60	18-27	1.40-1.60	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
Boton-----	0-15	12-18	1.25-1.45	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55	5	5	56
	15-21	18-27	1.40-1.60	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
	21-60	18-27	1.45-1.70	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.5	.49	.49			
1600: Clurde-----	0-5	10-15	1.35-1.50	4.00-14.00	0.19-0.21	0.0-2.9	1.0-2.0	.55	.64	5	5	56
	5-22	18-30	1.30-1.50	1.40-4.00	0.17-0.19	3.0-5.9	0.5-1.0	.49	.55			
	22-60	15-25	1.40-1.60	14.00-42.00	0.13-0.16	0.0-2.9	0.0-0.5	.32	.49			
1610: Gochea-----	0-11	10-20	1.30-1.50	4.00-14.00	0.08-0.13	0.0-2.9	1.0-2.0	.17	.37	4	6	48
	11-23	25-35	1.30-1.50	1.40-4.00	0.12-0.18	3.0-5.9	0.5-1.0	.17	.28			
	23-28	10-15	1.50-1.70	14.00-42.00	0.09-0.13	0.0-2.9	0.5-1.0	.28	.43			
	28-60	10-18	1.30-1.50	14.00-42.00	0.05-0.07	0.0-2.9	0.0-0.5	.10	.20			
Gochea-----	0-11	10-20	1.30-1.50	4.00-14.00	0.08-0.13	0.0-2.9	1.0-2.0	.17	.37	4	6	48
	11-23	25-35	1.30-1.50	1.40-4.00	0.12-0.18	3.0-5.9	0.5-1.0	.17	.28			
	23-28	10-15	1.50-1.70	14.00-42.00	0.09-0.13	0.0-2.9	0.5-1.0	.28	.43			
	28-60	10-18	1.30-1.50	14.00-42.00	0.05-0.07	0.0-2.9	0.0-0.5	.10	.20			
Igdell-----	0-7	20-27	1.05-1.20	4.00-14.00	0.12-0.15	3.0-5.9	1.0-2.0	.28	.37	2	7	38
	7-16	45-60	1.20-1.35	0.42-1.40	0.14-0.16	6.0-8.9	1.0-2.0	.32	.49			
	16-21	20-35	1.25-1.45	4.00-14.00	0.13-0.17	3.0-5.9	1.0-2.0	.32	.43			
	21-42	---	---	0.00-0.01	---	---	---	---	---			
1620: Weso-----	0-5	5-18	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.49	.49	4	3	86
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			

TABLE 13.--PHYSICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Ksat	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	um/sec	In/in	Pct	Pct					
1621: Weso-----	0-5	5-18	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.49	.49	4	3	86
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			
Wholan-----	0-6	5-15	1.35-1.50	4.00-14.00	0.19-0.21	0.0-2.9	0.0-0.5	.55	.55	5	5	56
	6-60	5-15	1.35-1.50	4.00-14.00	0.16-0.19	0.0-2.9	0.0-0.5	.55	.55			
1622: Weso-----	0-5	5-18	1.40-1.55	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.49	.49	4	3	86
	5-11	5-20	1.40-1.55	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.49	.55			
	11-26	4-15	1.55-1.70	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.49	.55			
	26-65	4-12	1.45-1.65	14.00-42.00	0.11-0.13	0.0-2.9	0.0-0.5	.28	.43			
Davey-----	0-5	5-10	1.45-1.65	42.00-141.0	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	5-14	10-15	1.40-1.60	14.00-42.00	0.13-0.17	0.0-2.9	0.5-2.0	.28	.28			
	14-67	2-8	1.50-1.65	42.00-141.0	0.05-0.10	0.0-2.9	0.0-0.5	.17	.20			
Broyles-----	0-12	5-15	1.35-1.55	4.00-14.00	0.17-0.19	0.0-2.9	0.5-1.0	.55	.55	5	5	56
	12-60	5-15	1.40-1.60	14.00-42.00	0.09-0.11	0.0-2.9	0.0-0.5	.24	.32			
1630: Bliss-----	0-4	8-18	1.35-1.50	4.00-14.00	0.16-0.18	0.0-2.9	1.0-3.0	.55	.55	2	5	56
	4-22	8-16	1.35-1.55	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.55	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-60	---	---	0.01-0.42	---	---	---	---	---			
1631: Bliss-----	0-4	8-18	1.35-1.50	14.00-42.00	0.15-0.17	0.0-2.9	1.0-2.0	.55	.55	2	3	86
	4-22	8-16	1.35-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.5-1.0	.55	.64			
	22-28	5-12	1.35-1.50	4.00-14.00	0.14-0.17	0.0-2.9	0.5-1.0	.55	.64			
	28-56	---	---	0.01-0.42	---	---	---	---	---			
	56-62	---	---	0.42-14.00	---	---	---	---	---			
1640: Kleck-----	0-3	8-18	1.35-1.55	4.00-14.00	0.16-0.18	0.0-2.9	0.8-2.0	.43	.43	2	5	56
	3-15	18-35	1.45-1.60	1.40-4.00	0.19-0.21	3.0-5.9	0.0-0.6	.43	.43			
	15-60	---	---	0.01-0.42	---	---	---	---	---			
1650: Water-----	---	---	---	---	---	---	---	---	---	-	---	---
1651: Miscellaneous Water-----	---	---	---	---	---	---	---	---	---	-	---	---

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct								
Tusk-----	0-13	10-27	10-25	---	6.6-7.3	0	0	0	0	
	13-40	27-35	20-35	---	6.6-7.8	0	0	0	0	
	40-60	20-35	15-30	---	7.4-7.8	0	0	0	0	
108: Anawalt-----	0-2	18-27	15-30	---	6.6-8.4	0	0	0	0	
	2-16	35-60	25-50	---	6.6-8.4	0-5	0	0	0	
	16-20	---	---	---	---	---	---	---	---	
Ninemile-----	0-2	15-25	20-28	---	6.1-7.3	0	0	0	0	
	2-14	40-60	38-54	---	6.6-7.8	0	0	0	0	
	14-24	---	---	---	---	---	---	---	---	
Alyan-----	0-17	18-27	15-22	---	6.6-7.8	0	0	0	0	
	17-39	40-55	33-46	---	6.6-7.8	0	0	0	0	
	39-43	---	---	---	---	---	---	---	---	
110: Adelaide-----	0-3	6-18	10-20	---	6.6-7.8	0-2	0	0.0-2.0	1-12	
	3-11	6-18	10-20	---	7.4-9.0	0-2	0	4.0-8.0	13-45	
	11-16	---	---	---	---	---	---	---	---	
	16-28	27-40	15-40	---	7.9-9.6	1-10	0-3	8.0-16.0	31-90	
	28-35	---	---	---	---	---	---	---	---	
	35-60	0-5	5.0-15	---	8.5-9.0	5-15	0-2	0.0-4.0	13-45	
120: Bregar-----	0-2	15-25	10-25	---	6.1-7.8	0	0	0	0	
	2-12	25-35	15-30	---	6.1-7.8	0	0	0	0	
	12-16	---	---	---	---	---	---	---	---	
Tusk-----	0-13	10-27	10-25	---	6.6-7.3	0	0	0	0	
	13-40	27-35	20-35	---	6.6-7.8	0	0	0	0	
	40-60	20-35	15-30	---	7.4-7.8	0	0	0	0	
Bregar-----	0-1	12-25	10-20	---	6.1-7.8	0	0	0	0	
	1-9	25-35	15-30	---	6.1-7.8	0	0	0	0	
	9-13	---	---	---	---	---	---	---	---	
122: Bregar-----	0-2	15-25	10-25	---	6.1-7.8	0	0	0	0	
	2-12	25-35	15-30	---	6.1-7.8	0	0	0	0	
	12-16	---	---	---	---	---	---	---	---	
Tusel-----	0-22	10-20	10-25	---	6.1-7.3	0	0	0	0	
	22-46	25-35	15-35	---	6.1-7.3	0	0	0	0	
	46-50	---	---	---	---	---	---	---	---	
Cleavage-----	0-7	15-25	10-25	---	6.6-7.8	0	0	0	0	
	7-16	20-35	15-30	---	6.6-7.8	0	0	0	0	
	16-20	---	---	---	---	---	---	---	---	
131: Benin-----	0-8	15-25	10-15	---	7.9-9.0	1-5	0	8.0-16.0	1-12	
	8-70	40-50	25-30	---	7.9-9.0	1-10	1-5	4.0-16.0	13-50	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
133: Benin-----	0-8 8-70	15-25 40-50	10-15 25-30	--- ---	7.9-9.0 7.9-9.0	1-5 1-10	0 1-5	8.0-16.0 4.0-16.0	1-12 13-50
141: Beoska-----	0-5 5-16 16-40 40-60	5-15 25-35 5-10 5-10	5.0-10 15-30 5.0-10 5.0-10	--- --- --- ---	7.9-9.0 7.9-9.0 7.9-9.0 7.9-9.0	0 1-10 10-20 15-25	0 0 0 0	2.0-4.0 8.0-16.0 8.0-16.0 8.0-16.0	13-30 13-30 13-90 13-45
Bluewing-----	0-2 2-60	6-10 3-8	4.0-7.0 1.0-5.0	--- ---	7.9-9.0 7.9-9.0	1-5 5-15	0 0-1	0.0-2.0 0.0-4.0	1-12 1-12
143: Beoska-----	0-5 5-26 26-60	8-15 25-35 5-15	5.0-10 15-30 5.0-10	--- --- ---	7.9-9.0 7.9-9.0 7.9-9.0	0 1-10 10-20	0 0 0	8.0-16.0 8.0-16.0 8.0-16.0	13-45 13-30 13-90
Broyles-----	0-3 3-12 12-60	8-18 8-18 5-15	10-30 10-30 10-30	--- --- ---	7.9-9.0 7.9-9.0 8.5-9.0	0-1 0-5 1-10	0 0-2 0-4	8.0-16.0 8.0-16.0 4.0-16.0	13-30 13-45 13-45
144: Beoska-----	0-5 5-26 26-60	5-15 25-35 5-15	5.0-10 15-30 5.0-10	--- --- ---	7.9-9.0 7.9-9.0 7.9-9.0	0 1-10 10-20	0 0 0	2.0-4.0 8.0-16.0 8.0-16.0	13-30 13-30 13-90
Dun Glen-----	0-6 6-23 23-60	10-15 11-16 9-14	15-25 15-25 5.0-15	--- --- ---	7.4-8.4 7.4-8.4 7.9-9.6	0 0 1-10	0 0 0-1	2.0-4.0 2.0-4.0 2.0-4.0	1-12 1-12 13-45
145: Beoska-----	0-5 5-26 26-60	5-15 25-35 5-10	5.0-15 15-30 5.0-10	--- --- ---	7.9-9.0 7.9-9.0 7.9-9.0	0 1-10 10-20	0 0 0	2.0-4.0 8.0-16.0 8.0-16.0	13-30 13-30 13-90
Beoska-----	0-5 5-26 26-60	5-15 25-35 5-10	5.0-15 15-30 5.0-10	--- --- ---	7.9-9.0 7.9-9.0 7.9-9.0	0 1-10 10-20	0 0 0	2.0-4.0 8.0-16.0 8.0-16.0	13-30 13-30 13-90
Weso-----	0-5 5-11 11-26 26-65	5-18 5-20 4-15 4-12	7.0-25 5.0-25 2.0-15 2.0-10	--- --- --- ---	7.9-9.0 7.9-9.0 7.9-9.0 7.9-9.0	0 0 1-4 0-5	0 0 0 0	0.0-4.0 0.0-8.0 0.0-8.0 4.0-16.0	1-12 5-12 13-45 13-45
151: Blackhawk-----	0-4 4-19 19-24 24-60	5-10 5-10 --- 0-12	15-22 15-22 --- 7.0-22	--- --- --- ---	7.9-9.0 7.9-9.0 --- 7.9-9.0	0-1 0-1 --- 0-10	0 0 --- 0	0.0-2.0 0.0-2.0 --- 16.0-32.0	1-12 5-12 --- 46-90
152: Blackhawk-----	0-4 4-19 19-24 24-60	5-10 5-10 --- 0-12	15-22 15-22 --- 7.0-22	--- --- --- ---	7.9-9.0 7.9-9.0 --- 7.9-9.6	0-1 0-1 --- 0-10	0 0 --- 0-5	0.0-2.0 0.0-2.0 --- 8.0-32.0	1-12 5-12 --- 13-45

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
161: Bliss-----	0-4	8-18	10-25	---	6.6-7.8	0	0	0	0-5
	4-22	8-16	10-30	---	6.6-8.4	0	0	0.0-2.0	1-5
	22-28	5-12	10-25	---	8.5-9.6	1-15	0	0.0-4.0	1-12
	28-56	---	---	---	---	---	---	---	---
	56-62	---	---	---	---	---	---	---	---
Chiara-----	0-3	5-10	8.0-15	---	6.6-8.4	0	0	0.0-2.0	0-5
	3-14	10-18	15-28	---	6.6-9.0	0-5	0	0.0-4.0	5-25
	14-60	---	---	---	---	---	---	---	---
163: Bliss-----	0-4	8-14	10-20	---	6.6-7.8	0	0	0	0-5
	4-22	8-16	10-30	---	6.6-8.4	0	0	0.0-2.0	1-5
	22-28	5-12	10-25	---	8.5-9.6	1-15	0	0.0-4.0	1-12
	28-56	---	---	---	---	---	---	---	---
	56-62	---	---	---	---	---	---	---	---
Shabliss-----	0-4	5-10	5.0-10	---	6.6-8.4	0-1	0	2.0-4.0	1-12
	4-15	5-10	5.0-10	---	6.6-9.0	0-10	0	2.0-4.0	13-30
	15-20	---	---	---	---	---	---	---	---
	20-52	5-10	5.0-10	---	7.9-9.6	10-20	0	4.0-8.0	13-45
	52-62	0-5	1.0-5.0	---	7.9-9.6	10-20	0	4.0-8.0	13-45
165: Bliss-----	0-4	8-18	10-25	---	6.6-7.8	0	0	0	0-5
	4-22	8-16	10-30	---	6.6-8.4	0	0	0.0-2.0	1-5
	22-28	5-12	10-25	---	8.5-9.6	1-15	0	0.0-4.0	1-12
	28-56	---	---	---	---	---	---	---	---
	56-62	---	---	---	---	---	---	---	---
Dugchip-----	0-5	10-18	10-20	---	6.6-8.4	0	0	0.0-2.0	0-5
	5-18	8-18	15-25	---	7.4-9.0	0-5	0	0.0-4.0	1-12
	18-31	25-35	20-40	---	7.9-9.6	1-5	0-3	8.0-16.0	13-30
	31-39	---	---	---	---	---	---	---	---
	39-60	2-8	1.0-5.0	---	7.4-9.0	2-10	0	8.0-16.0	31-45
Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0-5
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	1-12
	26-61	5-18	10-20	---	7.9-9.6	0-10	0-2	4.0-16.0	13-45
166: Bliss-----	0-4	8-14	10-20	---	6.6-7.8	0	0	0	0-5
	4-22	8-16	10-30	---	6.6-8.4	0	0	0.0-2.0	1-5
	22-28	5-12	10-25	---	8.5-9.6	1-15	0	0.0-4.0	1-12
	28-56	---	---	---	---	---	---	---	---
	56-62	---	---	---	---	---	---	---	---
Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0-5
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	1-12
	26-61	5-18	10-20	---	7.9-9.6	0-10	0-2	4.0-16.0	13-45
Shabliss-----	0-4	5-10	5.0-10	---	6.6-8.4	0-1	0	2.0-4.0	1-12
	4-15	5-10	5.0-10	---	6.6-9.0	0-10	0	2.0-4.0	13-30
	15-20	---	---	---	---	---	---	---	---
	20-52	5-10	5.0-10	---	7.9-9.0	10-20	0	4.0-8.0	13-45
	52-62	0-5	1.0-5.0	---	7.9-9.0	10-20	0	4.0-8.0	13-45

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
167:									
Bliss-----	0-4	8-14	10-20	---	6.6-7.8	0	0	0	0-5
	4-22	8-16	10-30	---	6.6-8.4	0	0	0.0-2.0	1-5
	22-28	5-12	10-25	---	8.5-9.6	1-15	0	0.0-4.0	1-12
	28-56	---	---	---	---	---	---	---	---
	56-62	---	---	---	---	---	---	---	---
Blackhawk-----	0-4	5-10	15-22	---	7.9-9.0	0-1	0	0.0-2.0	1-12
	4-19	5-10	15-22	---	7.9-9.0	0-1	0	0.0-2.0	5-12
	19-24	---	---	---	---	---	---	---	---
	24-60	0-12	7.0-22	---	7.9-9.6	0-10	0-5	8.0-32.0	13-45
Adelaide-----	0-3	6-18	10-20	---	6.6-7.8	0-2	0	0.0-2.0	1-5
	3-11	6-18	10-20	---	7.4-9.0	0-2	0	4.0-8.0	13-45
	11-16	---	---	---	---	---	---	---	---
	16-28	27-40	15-40	---	7.9-9.6	1-10	0-3	8.0-16.0	31-90
	28-60	---	---	---	---	---	---	---	---
169:									
Bliss-----	0-4	8-14	10-20	---	6.6-7.8	0	0	0	0-5
	4-22	8-16	10-30	---	6.6-8.4	0	0	0.0-2.0	1-5
	22-28	5-12	10-25	---	8.5-9.6	1-15	0	0.0-4.0	1-12
	28-56	---	---	---	---	---	---	---	---
	56-62	---	---	---	---	---	---	---	---
Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0-5
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	1-12
	26-61	5-18	10-20	---	7.9-9.6	0-10	0-2	4.0-16.0	13-45
171:									
Bubus-----	0-5	10-15	10-20	---	7.9-9.6	0-2	0	4.0-8.0	5-30
	5-63	10-15	5.0-25	---	7.9-9.6	2-10	0-1	8.0-32.0	13-99
174:									
Bubus-----	0-5	10-15	10-20	---	7.9-9.6	0-2	0	4.0-8.0	5-30
	5-63	10-15	5.0-25	---	7.9-9.6	2-10	0-1	8.0-32.0	13-99
Needle Peak-----	0-4	20-27	20-30	---	7.4-8.4	0	0	4.0-8.0	1-12
	4-60	20-35	20-35	---	7.9-9.0	1-5	0-2	0.0-4.0	13-30
178:									
Bubus-----	0-5	10-15	10-20	---	7.9-9.6	0-2	0	4.0-8.0	5-30
	5-63	10-15	5.0-25	---	7.9-9.6	2-10	0-1	8.0-32.0	13-99
Preble-----	0-10	10-15	10-25	---	8.5-9.0	1-3	0	8.0-16.0	13-30
	10-55	8-15	5.0-20	---	7.4-9.0	1-10	0	8.0-16.0	13-45
	55-65	0-5	0.0-5.0	---	8.5-9.0	0-10	0	8.0-16.0	5-12
184:									
Chiara-----	0-3	10-15	15-25	---	6.6-8.4	0	0	0	0-5
	3-14	10-15	15-25	---	6.6-9.0	0-1	0	0.0-2.0	5-25
	14-60	---	---	---	---	---	---	---	---
McConnel-----	0-1	5-15	5.0-15	---	6.6-8.4	0	0	0.0-2.0	0-5
	1-16	5-15	5.0-20	---	6.6-8.4	0	0	0.0-2.0	0-5
	16-60	0-5	1.0-5.0	---	7.9-9.6	0-3	0	2.0-32.0	1-12

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct								
185: Chiara-----	0-3	10-18	15-28	---	6.6-8.4	0	0	0.0-2.0	0-5	
	3-14	10-18	15-28	---	6.6-9.0	0-5	0	0.0-4.0	5-25	
	14-60	---	---	---	---	---	---	---	---	
Dacker-----	0-7	10-20	15-20	---	6.6-7.8	0	0	0	0	
	7-18	27-35	25-35	---	7.4-8.4	0	0	0.0-4.0	0-5	
	18-22	18-25	20-25	---	7.9-9.0	1-10	0	4.0-8.0	1-12	
	22-26	---	---	---	---	---	---	---	---	
McConnel-----	0-16	5-18	5.0-20	---	7.4-7.8	0	0	0.0-2.0	0-5	
	16-60	0-5	1.0-5.0	---	7.9-9.6	0	0	0.0-4.0	1-12	
186: Chiara-----	0-3	10-18	15-28	---	6.6-8.4	0	0	0.0-2.0	0-5	
	3-14	10-18	15-28	---	6.6-9.0	0-5	0	0.0-4.0	5-25	
	14-60	---	---	---	---	---	---	---	---	
Hunnton-----	0-6	10-18	10-20	---	6.6-8.4	0	0	0	0-5	
	6-12	20-35	10-30	---	7.4-8.4	0	0	0	0-5	
	12-22	45-55	30-45	---	7.4-8.4	0	0	0.0-2.0	1-12	
	22-36	---	---	---	---	---	---	---	---	
	36-60	2-10	0.0-5.0	---	7.9-9.0	0-5	0	0.0-8.0	13-30	
187: Chiara-----	0-3	10-15	15-25	---	6.6-8.4	0	0	0	0-5	
	3-14	10-15	15-25	---	6.6-9.0	0-1	0	0.0-2.0	5-25	
	14-60	---	---	---	---	---	---	---	---	
Boger-----	0-6	10-18	10-20	---	7.4-8.4	0	0	0.0-2.0	0-5	
	6-19	10-18	5.0-15	---	7.9-9.0	1-5	0	0.0-4.0	1-12	
	19-28	---	---	---	---	---	---	---	---	
	28-32	---	---	---	---	---	---	---	---	
Chiara-----	0-3	10-18	15-28	---	6.6-8.4	0	0	0.0-2.0	0-5	
	3-14	10-18	15-28	---	6.6-9.0	0-5	0	0.0-4.0	5-25	
	14-60	---	---	---	---	---	---	---	---	
188: Chiara-----	0-3	10-18	15-25	---	7.4-8.4	0	0	0	0-5	
	3-14	10-18	15-40	---	7.4-8.4	0-1	0	0.0-2.0	5-25	
	14-60	---	---	---	---	---	---	---	---	
Chiara-----	0-3	10-18	15-25	---	7.4-8.4	0	0	0	0-5	
	3-14	10-18	15-40	---	7.4-8.4	0-1	0	0.0-2.0	5-25	
	14-60	---	---	---	---	---	---	---	---	
190: Beeox-----	0-3	10-18	15-25	---	7.9-9.0	0-1	0	0.0-4.0	1-12	
	3-12	10-18	10-25	---	7.9-9.6	0-1	0	0.0-4.0	1-12	
	12-21	35-55	25-45	---	8.5-9.6	0-5	0	0.0-4.0	13-70	
	21-44	15-25	10-20	---	8.5-9.6	1-10	0-1	2.0-8.0	13-45	
	44-60	5-10	1.0-5.0	---	8.5-9.6	1-10	0-1	2.0-8.0	13-45	
Oxcotel-----	0-5	16-24	15-25	---	7.9-8.4	0	0	0	1-12	
	5-24	35-50	30-45	---	7.9-9.0	0-5	0	0.0-4.0	30-90	
	24-60	8-15	5.0-10	---	7.9-9.0	1-5	0	0.0-8.0	40-90	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm		
191:										
Beeox-----	0-3	10-18	10-20	---	7.9-9.0	0-1	0	0.0-4.0	1-12	
	3-12	10-18	10-25	---	7.9-9.6	0-1	0	0.0-4.0	1-12	
	12-21	35-55	25-45	---	8.5-9.6	0-5	0-1	0.0-4.0	13-70	
	21-44	15-25	10-20	---	8.5-9.6	1-10	0-1	2.0-8.0	13-45	
	44-60	5-10	1.0-5.0	---	8.5-9.6	1-10	0-1	2.0-8.0	13-30	
Connel-----	0-6	10-15	10-20	---	6.6-8.4	0	0	0.0-2.0	0-5	
	6-20	12-18	10-25	---	7.4-8.4	0-5	0	0.0-2.0	1-12	
	20-60	2-8	1.0-10	---	7.9-9.6	0-10	0-2	0.0-2.0	13-30	
192:										
Beeox-----	0-3	10-18	10-20	---	7.9-9.0	0-1	0	0.0-4.0	1-12	
	3-12	10-18	10-25	---	7.9-9.6	0-1	0	0.0-4.0	1-12	
	12-21	35-55	25-45	---	8.5-9.6	0-5	0-1	0.0-4.0	13-70	
	21-44	15-25	10-20	---	8.5-9.6	1-10	0-1	2.0-8.0	13-45	
	44-60	5-10	1.0-5.0	---	8.5-9.6	1-10	0-1	2.0-8.0	13-30	
Bliss-----	0-4	8-18	10-25	---	6.6-7.8	0	0	0	0-5	
	4-22	8-16	10-30	---	6.6-8.4	0	0	0.0-2.0	1-5	
	22-28	5-12	10-25	---	8.5-9.6	1-15	0	0.0-4.0	1-12	
	28-56	---	---	---	---	---	---	---	---	
	56-62	---	---	---	---	---	---	---	---	
200:										
Davey-----	0-5	2-5	5.0-15	---	7.4-7.8	0	0	8.0-16.0	1-12	
	5-14	5-10	10-25	---	7.4-8.4	0	0	8.0-16.0	1-12	
	14-67	2-5	2.0-10	---	7.9-9.0	0-10	0-1	8.0-16.0	1-12	
201:										
Davey-----	0-5	5-10	5.0-15	---	6.6-7.8	0	0	0	0	
	5-14	10-15	10-25	---	6.6-8.4	0	0	0.0-2.0	0-5	
	14-67	2-8	2.0-10	---	7.9-9.0	0-10	0-1	0.0-2.0	0-5	
202:										
Davey-----	0-5	5-10	5.0-15	---	6.6-7.8	0	0	0	0	
	5-14	10-15	10-25	---	6.6-8.4	0	0	0.0-2.0	0-5	
	14-67	2-8	2.0-10	---	7.9-9.0	0-10	0-1	0.0-2.0	0-5	
203:										
Davey-----	0-5	3-6	5.0-15	---	6.6-7.8	0	0	0.0-2.0	0-5	
	5-20	10-15	10-25	---	6.6-7.8	0	0	0.0-4.0	0-5	
	20-50	5-10	2.0-10	---	7.9-9.0	0-10	0-1	8.0-16.0	0-12	
	50-60	---	---	---	---	---	---	---	---	
Goldrun-----	0-7	1-8	2.0-10	---	6.6-8.4	0-1	0	0	0	
	7-67	1-8	2.0-10	---	7.9-9.0	0-1	0	0.0-2.0	0-5	
204:										
Davey-----	0-5	5-10	5.0-15	---	6.6-7.8	0	0	0	0	
	5-14	10-15	10-25	---	6.6-8.4	0	0	0.0-2.0	0-5	
	14-67	2-8	2.0-10	---	7.9-9.0	0-10	0-1	0.0-2.0	0-5	
Blackhawk-----	0-4	2-5	4.0-10	---	7.4-7.8	0-1	0	0	0	
	4-19	5-10	15-22	---	7.9-9.0	0-1	0	0.0-2.0	5-12	
	19-24	---	---	---	---	---	---	---	---	
	24-60	0-12	7.0-22	---	7.9-9.6	0-10	0-5	8.0-32.0	13-45	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay Pct	Cation- exchange capacity meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction pH	Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct								
Snapp-----	0-5	8-15	10-15	---	7.9-8.4	0	0	0.0-2.0	1-12	
	5-21	35-60	25-50	---	8.5-11.0	0-5	0	2.0-8.0	13-30	
	21-25	25-35	20-35	---	7.9-9.0	1-5	0-3	2.0-8.0	13-45	
	25-60	5-10	1.0-8.0	---	8.5-9.0	1-10	0-5	0.0-8.0	13-45	
212: Flue-----	0-6	10-18	15-30	---	7.4-8.4	0	0	0.0-4.0	1-12	
	6-13	10-20	15-30	---	7.9-9.0	0-1	0	0.0-4.0	5-12	
	13-35	35-60	30-50	---	7.9-9.6	4-14	0-3	0.0-4.0	13-50	
	35-40	---	---	---	---	---	---	---	---	
	40-60	2-7	5.0-15	---	7.9-9.6	2-10	0	2.0-8.0	13-30	
Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0-5	
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	1-12	
	26-61	5-18	10-20	---	7.9-9.6	0-10	0-2	4.0-16.0	13-45	
213: Flue-----	0-6	10-18	15-30	---	7.4-8.4	0	0	0.0-4.0	1-12	
	6-13	10-20	15-30	---	7.9-9.0	0-1	0	0.0-4.0	5-12	
	13-35	35-60	30-50	---	7.9-9.6	4-14	0-3	0.0-4.0	13-50	
	35-40	---	---	---	---	---	---	---	---	
	40-60	2-7	5.0-15	---	7.9-9.6	2-10	0	2.0-8.0	13-30	
Puett-----	0-5	8-15	5.0-10	---	7.9-9.0	1-5	0	0.0-2.0	0-5	
	5-10	5-10	5.0-10	---	7.9-9.0	1-5	0	0.0-2.0	5-12	
	10-14	---	---	---	---	---	---	---	---	
215: Flue-----	0-6	10-18	15-30	---	7.4-8.4	0	0	0.0-4.0	1-12	
	6-13	10-20	15-30	---	7.9-9.0	0-1	0	0.0-4.0	5-12	
	13-35	35-60	30-50	---	7.9-9.6	4-14	0-3	0.0-4.0	13-50	
	35-40	---	---	---	---	---	---	---	---	
	40-60	2-8	5.0-15	---	7.9-9.6	2-10	0	2.0-8.0	13-30	
Snapp-----	0-5	8-15	10-15	---	7.9-8.4	0	0	0.0-2.0	1-12	
	5-21	35-60	25-50	---	8.5-11.0	0-5	0	2.0-8.0	13-30	
	21-25	25-35	20-35	---	7.9-9.0	1-5	0-3	2.0-8.0	13-45	
	25-60	5-10	1.0-8.0	---	8.5-9.0	1-10	0-5	0.0-8.0	13-45	
Snapp-----	0-5	5-15	5.0-15	---	7.9-8.4	0	0	0.0-2.0	1-12	
	5-21	35-60	20-50	---	7.9-9.6	0-5	0	2.0-8.0	13-30	
	21-25	25-35	15-30	---	8.5-9.0	1-5	0-3	2.0-8.0	13-45	
	25-60	5-10	5.0-10	---	8.5-9.0	1-10	0-3	0.0-4.0	13-45	
216: Flue-----	0-6	10-18	15-30	---	7.4-8.4	0	0	0.0-4.0	1-12	
	6-13	10-20	15-30	---	7.9-9.0	0-1	0	0.0-4.0	5-12	
	13-35	35-60	30-50	---	7.9-9.6	4-14	0-3	0.0-4.0	13-50	
	35-40	---	---	---	---	---	---	---	---	
	40-60	2-7	5.0-15	---	7.9-9.6	2-10	0	2.0-8.0	13-30	
217: Flue-----	0-6	10-18	15-30	---	7.4-8.4	0	0	0.0-4.0	1-12	
	6-13	10-20	15-30	---	7.9-9.0	0-1	0	0.0-4.0	5-12	
	13-35	35-60	30-50	---	7.9-9.6	4-14	0-3	0.0-4.0	13-50	
	35-40	---	---	---	---	---	---	---	---	
	40-60	2-7	5.0-15	---	7.9-9.6	2-10	0	2.0-8.0	13-30	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct								
218: Flue-----	0-6	10-18	15-30	---	7.4-8.4	0	0	0	0.0-4.0	1-12
	6-13	10-20	15-30	---	7.9-9.0	0-1	0	0	0.0-4.0	5-12
	13-35	35-60	30-50	---	7.9-9.6	4-14	0-3	0	0.0-4.0	13-50
	35-40	---	---	---	---	---	---	---	---	---
	40-60	2-8	5.0-15	---	7.9-9.6	2-10	0	0	2.0-8.0	13-30
Rodock-----	0-2	10-18	12-25	---	6.6-7.8	0	0	0	0.0-4.0	0
	2-20	15-25	15-35	---	6.6-8.4	0	0	0	0.0-4.0	0
	20-27	8-15	5.0-15	---	7.4-9.0	0-3	0	0	0.0-4.0	0-5
	27-60	0-5	1.0-3.0	---	7.4-9.0	0-3	0	0	0.0-8.0	1-12
Snapp-----	0-5	8-15	10-15	---	7.9-8.4	0	0	0	0.0-2.0	1-12
	5-21	35-60	25-50	---	8.5-11.0	0-5	0	0	2.0-8.0	13-30
	21-25	25-35	20-35	---	7.9-9.0	1-5	0-3	0	2.0-8.0	13-45
	25-60	5-10	1.0-8.0	---	8.5-9.0	1-10	0-5	0	0.0-8.0	13-45
222: Bloor-----	0-15	8-18	10-20	---	8.5-9.0	0	0	0	8.0-16.0	13-30
	15-30	27-35	15-30	---	7.9-9.6	0-5	0	0	4.0-32.0	13-30
	30-42	10-15	5.0-15	---	8.5-9.6	1-10	1-5	0	8.0-32.0	13-30
	42-60	10-20	5.0-15	---	8.5-9.6	1-5	1-5	0	8.0-32.0	13-30
231: Dun Glen-----	0-6	10-15	15-25	---	7.4-8.4	0	0	0	2.0-4.0	1-12
	6-23	11-16	15-25	---	7.4-8.4	0	0	0	2.0-4.0	1-12
	23-60	9-14	5.0-15	---	7.9-9.6	1-10	0-1	0	2.0-4.0	13-45
233: Dun Glen-----	0-6	10-15	15-25	---	7.4-8.4	0	0	0	2.0-4.0	1-12
	6-23	11-16	15-25	---	7.4-8.4	0	0	0	2.0-4.0	1-12
	23-60	9-14	5.0-15	---	7.9-9.6	1-10	0-1	0	2.0-4.0	13-45
241: Sojur-----	0-5	18-25	10-20	---	7.9-9.0	1-10	0	0	0.0-2.0	1-12
	5-9	---	---	---	---	---	---	---	---	---
250: Connel-----	0-6	10-15	10-20	---	6.6-8.4	0	0	0	0	0-5
	6-20	12-18	10-30	---	7.4-9.6	0-5	0	0	0.0-2.0	1-12
	20-60	2-8	2.0-10	---	7.9-9.6	1-10	0-2	0	0.0-2.0	13-30
Davey-----	0-5	5-10	5.0-15	---	6.6-7.8	0	0	0	0	0
	5-14	10-15	10-25	---	6.6-8.4	0	0	0	0.0-2.0	0-5
	14-67	2-8	2.0-10	---	7.9-9.0	0-10	0-1	0	0.0-2.0	0-5
Goldrun-----	0-7	1-8	2.0-10	---	6.6-8.4	0-1	0	0	0	0
	7-67	1-8	2.0-10	---	7.9-9.0	0-1	0	0	0.0-2.0	0-5
251: Connel-----	0-6	10-15	10-20	---	6.6-8.4	0	0	0	0	0-5
	6-20	12-18	10-30	---	7.4-9.6	0-5	0	0	0.0-2.0	1-12
	20-60	2-8	2.0-10	---	7.9-9.6	1-10	0-2	0	0.0-2.0	13-30
252: Connel-----	0-6	10-15	10-20	---	6.6-8.4	0	0	0	0.0-2.0	0-5
	6-20	12-18	10-25	---	7.4-8.4	0-5	0	0	0.0-2.0	1-12
	20-60	2-8	1.0-10	---	7.9-9.6	0-10	0-2	0	0.0-2.0	13-30

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct								
Gowjai-----	0-11	8-18	5.0-20	---	6.6-7.3	0	0	0	0	
	11-36	25-35	15-30	---	6.6-7.3	0	0	0	0	
	36-52	5-15	5.0-10	---	7.4-7.8	0	0	0	0	
	52-62	---	---	---	---	---	---	---	---	
Walti-----	0-4	10-20	8.0-18	---	6.6-7.8	0	0	0	0	
	4-8	27-35	18-25	---	6.6-7.8	0	0	0	0	
	8-20	50-60	31-40	---	6.6-7.8	0	0	0	0	
	20-24	---	---	---	---	---	---	---	---	
302:										
Essal-----	0-18	15-20	10-20	---	7.9-9.0	10-20	0-2	4.0-8.0	13-30	
	18-34	5-12	5.0-15	---	7.9-9.0	10-20	0-2	4.0-8.0	13-45	
	34-60	2-5	0.0-5.0	---	7.9-9.0	10-20	0-2	2.0-8.0	13-30	
Isolde-----	0-3	0-5	1.0-5.0	---	6.6-8.4	0-1	0	0	0-5	
	3-60	0-5	1.0-5.0	---	6.6-8.4	0-3	0-1	0.0-2.0	0-5	
Playas-----	0-6	35-40	30-35	---	8.5-9.6	1-5	1-5	16.0-32.0	46-90	
	6-60	35-70	30-60	---	8.5-9.6	1-10	1-10	16.0-32.0	46-90	
305:										
Essal-----	0-2	2-5	0.0-5.0	---	7.9-9.0	10-20	0-4	0.0-4.0	1-12	
	2-34	8-18	5.0-15	---	7.9-9.0	10-20	0-4	4.0-8.0	13-45	
	34-60	2-8	0.0-5.0	---	7.9-9.0	15-30	0-4	2.0-8.0	13-30	
Isolde-----	0-3	0-5	1.0-5.0	---	6.6-8.4	0-1	0	0	0-5	
	3-60	0-5	1.0-5.0	---	6.6-8.4	0-3	0-1	0.0-2.0	0-5	
Hawsley-----	0-3	0-5	1.0-5.0	---	6.6-8.4	0	0	0	0	
	3-60	0-5	1.0-5.0	---	7.4-9.0	1-5	0	0.0-2.0	1-5	
307:										
Essal-----	0-2	2-5	0.0-5.0	---	7.9-9.0	10-20	0-4	0.0-4.0	1-12	
	2-34	8-18	5.0-15	---	7.9-9.0	10-20	0-4	4.0-8.0	13-45	
	34-60	2-8	0.0-5.0	---	7.9-9.0	15-30	0-4	2.0-8.0	13-30	
Isolde-----	0-3	0-5	1.0-5.0	---	6.6-8.4	0-1	0	0	0-5	
	3-60	0-5	1.0-5.0	---	6.6-8.4	0-3	0-1	0.0-2.0	0-5	
Tresed-----	0-10	0-5	0.0-5.0	---	7.4-8.4	0	0	0.0-4.0	1-12	
	10-25	35-55	20-45	---	8.5-9.0	1-5	0-3	4.0-16.0	13-45	
	25-60	5-18	5.0-15	---	7.9-9.0	1-5	0-3	4.0-32.0	13-45	
311:										
Harcany-----	0-4	7-10	15-25	---	6.6-7.3	0	0	0	0	
	4-18	5-10	10-25	---	6.6-7.3	0	0	0	0	
	18-72	10-15	12-30	---	6.6-7.3	0	0	0	0	
Croesus-----	0-3	10-18	5.0-20	---	6.1-7.3	0	0	0	0	
	3-33	10-18	5.0-20	---	6.1-7.3	0	0	0	0	
	33-37	---	---	---	---	---	---	---	---	
Hackwood-----	0-32	18-27	12-35	---	6.1-7.3	0	0	0	0	
	32-60	18-27	12-30	---	6.1-7.3	0	0	0	0	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay		Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g		pH	Pct	Pct	mmhos/cm		
312: Harcany-----	0-4	10-15	15-25	---	6.6-7.3	0	0	0	0	0	
	4-18	5-10	10-20	---	6.6-7.3	0	0	0	0	0	
	18-72	10-15	10-20	---	6.6-7.3	0	0	0	0	0	
Hackwood-----	0-32	18-27	12-35	---	6.1-7.3	0	0	0	0	0	
	32-60	18-27	12-30	---	6.1-7.3	0	0	0	0	0	
Cleavage-----	0-7	15-25	15-25	---	6.6-7.8	0	0	0	0	0	
	7-16	20-35	15-30	---	6.6-7.8	0	0	0	0	0	
	16-20	---	---	---	---	---	---	---	---	---	
321: Humboldt-----	0-18	27-40	20-45	---	7.9-8.4	0-3	0	0.0-4.0	1-12	1-12	
	18-60	35-45	20-35	---	7.9-9.0	1-5	0	0.0-4.0	1-12	1-12	
322: Humboldt-----	0-18	30-40	15-40	---	8.5-9.0	1-10	0	16.0-32.0	13-45	13-30	
	18-60	35-45	20-35	---	7.9-9.0	1-10	0	16.0-32.0	13-30	13-30	
325: Humboldt-----	0-18	27-40	20-45	---	7.9-8.4	0-3	0	0.0-4.0	1-12	1-12	
	18-60	35-45	20-35	---	7.9-9.0	1-5	0	0.0-4.0	1-12	1-12	
Wendane-----	0-20	15-25	15-25	---	8.5-9.6	5-15	0	16.0-32.0	46-99	1-12	
	20-35	15-25	15-25	---	7.9-9.6	5-15	0	16.0-32.0	1-12	1-12	
	35-60	27-35	25-40	---	7.9-9.6	5-15	0	16.0-32.0	1-5	1-5	
330: McConnel-----	0-1	5-15	5.0-15	---	6.6-8.4	0	0	0.0-2.0	0-5	0-5	
	1-16	5-15	5.0-20	---	6.6-8.4	0	0	0.0-2.0	0-5	0-5	
	16-60	0-5	1.0-5.0	---	7.9-9.6	0-3	0	2.0-32.0	1-12	1-12	
331: McConnel-----	0-1	7-15	5.0-15	---	6.6-8.4	0	0	0.0-2.0	0-5	0-5	
	1-16	5-15	5.0-20	---	6.6-8.4	0	0	0.0-2.0	0-5	0-5	
	16-60	0-5	1.0-5.0	---	7.9-9.6	0-3	0	2.0-32.0	1-12	1-12	
333: McConnel-----	0-9	0-5	2.0-5.0	---	6.6-7.8	0	0	0.0-2.0	1-5	1-5	
	9-16	10-15	8.0-20	---	6.6-8.4	0	0	0.0-2.0	1-5	1-5	
	16-60	0-5	1.0-5.0	---	7.9-9.6	0	0	0.0-4.0	1-12	1-12	
Shabliss-----	0-4	5-10	5.0-10	---	6.6-8.4	0-1	0	2.0-4.0	1-12	1-12	
	4-15	5-10	5.0-10	---	6.6-9.0	0-10	0	2.0-4.0	13-30	13-30	
	15-20	---	---	---	---	---	---	---	---	---	
	20-52	5-10	5.0-10	---	7.9-9.6	10-20	0	4.0-8.0	13-45	13-45	
	52-62	0-5	1.0-5.0	---	7.9-9.6	10-20	0	4.0-8.0	13-45	13-45	
335: McConnel-----	0-1	5-10	5.0-10	---	7.4-7.8	0	0	0.0-2.0	0-5	0-5	
	1-16	10-18	5.0-15	---	7.4-7.8	0	0	0.0-2.0	0-5	0-5	
	16-60	0-5	1.0-5.0	---	7.9-9.0	0	0	0.0-2.0	1-12	1-12	
338: McConnel-----	0-1	7-15	5.0-15	---	6.6-8.4	0	0	0.0-2.0	0-5	0-5	
	1-16	5-15	5.0-20	---	6.6-8.4	0	0	0.0-2.0	0-5	0-5	
	16-60	0-5	1.0-5.0	---	7.9-9.0	0-3	0	2.0-32.0	1-12	1-12	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct								
403: Orovada-----	0-8	5-10	10-15	---	6.6-8.4	0	0	0	0-5	
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	0-5	
	26-61	5-18	10-20	---	7.9-9.6	1-15	0	4.0-16.0	1-12	
406: Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0-5	
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	0-5	
	26-61	5-18	10-20	---	7.9-9.6	1-15	0	4.0-16.0	1-12	
407: Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0-5	
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	0-5	
	26-61	5-18	10-20	---	7.9-9.6	1-15	0	4.0-16.0	1-12	
409: Orovada-----	0-8	5-10	10-15	---	6.6-8.4	0	0	0	0-5	
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	1-12	
	26-61	5-18	10-20	---	7.9-9.6	0-10	0-2	4.0-16.0	13-45	
Goldrun-----	0-7	1-8	2.0-10	---	6.6-8.4	0-1	0	0	0	
	7-67	1-8	2.0-10	---	7.9-9.0	0-1	0	0.0-2.0	0-5	
410: Bliss-----	0-4	3-8	5.0-10	---	6.6-7.8	0	0	0.0-2.0	0-5	
	4-22	8-16	5.0-15	---	6.6-8.4	0	0	0.0-2.0	1-5	
	22-28	5-12	3.0-10	---	8.5-9.0	1-15	0	0.0-4.0	1-12	
	28-60	---	---	---	---	---	---	---	---	
Orovada-----	0-2	3-10	7.0-15	---	6.6-8.4	0	0	0	0	
	2-26	5-18	5.0-20	---	7.4-8.4	0-5	0	0.0-4.0	1-12	
	26-60	5-18	5.0-20	---	7.9-9.6	0-10	0-2	4.0-16.0	13-45	
411: Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0-5	
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	1-12	
	26-61	5-18	10-20	---	7.9-9.6	0-10	0-2	4.0-16.0	13-45	
Dugchip-----	0-5	10-18	10-20	---	6.6-8.4	0	0	0.0-2.0	0-5	
	5-18	8-18	15-25	---	7.4-9.0	0-5	0	0.0-4.0	1-12	
	18-31	25-35	20-40	---	7.9-9.6	1-5	0-3	8.0-16.0	13-30	
	31-39	---	---	---	---	---	---	---	---	
	39-60	2-8	1.0-5.0	---	7.4-9.0	2-10	0	8.0-16.0	31-45	
417: Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0-5	
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	0-5	
	26-61	5-18	10-20	---	7.9-9.6	1-15	0	4.0-16.0	1-12	
Connel-----	0-6	10-15	10-20	---	6.6-8.4	0	0	0	0-5	
	6-20	12-18	10-30	---	7.4-9.6	0-5	0	0.0-2.0	1-12	
	20-60	2-8	2.0-10	---	7.9-9.6	1-10	0-2	0.0-2.0	13-30	
420: Bubus-----	0-5	10-15	10-25	---	7.9-9.6	0-2	0	4.0-8.0	5-30	
	5-63	10-15	5.0-25	---	7.9-9.6	2-10	0-1	8.0-32.0	13-99	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay		Cation- exchange capacity		Effective cation- exchange capacity		Soil reaction		Calcium carbonate		Gypsum		Salinity		Sodium adsorption ratio	
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm										
431: Preble-----	0-10	10-15	10-25	---	8.5-9.0	1-3	0	16.0-32.0	13-45									
	10-55	8-15	5.0-20	---	7.4-9.0	1-10	0	8.0-16.0	13-45									
	55-65	0-5	0.0-5.0	---	8.5-9.0	0-10	0	8.0-16.0	5-12									
432: Preble-----	0-10	10-15	10-25	---	8.5-9.0	1-3	0	16.0-32.0	13-45									
	10-55	8-15	5.0-20	---	7.4-9.0	1-10	0	8.0-16.0	13-45									
	55-65	0-5	0.0-5.0	---	8.5-9.0	0-10	0	8.0-16.0	5-12									
Goldrun-----	0-7	1-8	2.0-10	---	7.4-8.4	0-1	0	4.0-8.0	1-12									
	7-60	1-8	2.0-10	---	7.4-8.4	0-1	0	4.0-32.0	1-5									
Playas-----	0-6	35-40	30-35	---	8.5-9.0	1-5	1-5	16.0-32.0	46-90									
	6-60	35-70	30-60	---	8.5-9.0	1-10	1-10	16.0-32.0	46-90									
435: Preble-----	0-10	10-15	10-25	---	8.5-9.0	1-3	0	16.0-32.0	13-45									
	10-55	8-15	5.0-20	---	7.4-9.0	1-10	0	8.0-16.0	13-45									
	55-65	0-5	0.0-5.0	---	8.5-9.0	0-10	0	8.0-16.0	5-12									
436: Preble-----	0-10	10-15	10-25	---	8.5-9.0	1-3	0	8.0-16.0	13-30									
	10-55	8-15	5.0-20	---	7.4-9.0	1-10	0	8.0-16.0	13-45									
	55-65	0-5	0.0-5.0	---	8.5-9.0	0-10	0	8.0-16.0	5-12									
Valmy-----	0-3	5-15	5.0-15	---	7.9-9.0	0	0	4.0-8.0	1-12									
	3-43	5-15	5.0-25	---	8.5-9.6	1-4	0	0.0-8.0	13-30									
	43-66	1-5	5.0-10	---	8.5-9.6	1-4	0	0.0-8.0	13-45									
Valmy-----	0-3	5-15	5.0-15	---	7.9-9.0	0	0	4.0-8.0	1-12									
	3-60	5-15	5.0-15	---	8.5-9.6	1-4	0	4.0-8.0	13-45									
437: Preble-----	0-10	10-15	10-25	---	8.5-9.0	1-3	0	16.0-32.0	13-45									
	10-55	8-15	5.0-20	---	7.4-9.0	1-10	0	8.0-16.0	13-45									
	55-65	0-5	0.0-5.0	---	8.5-9.0	0-10	0	8.0-16.0	5-12									
Davey-----	0-5	2-5	5.0-15	---	7.4-7.8	0	0	8.0-16.0	1-12									
	5-14	5-10	10-25	---	7.4-8.4	0	0	8.0-16.0	1-12									
	14-67	2-5	2.0-10	---	7.9-9.0	0-10	0-1	8.0-16.0	1-12									
438: Preble-----	0-10	10-15	10-25	---	8.5-9.0	1-3	0	16.0-32.0	13-45									
	10-55	8-15	5.0-20	---	7.4-9.0	1-10	0	8.0-16.0	13-45									
	55-65	0-5	0.0-5.0	---	8.5-9.0	0-10	0	8.0-16.0	5-12									
Bubus-----	0-5	10-15	10-20	---	7.9-9.6	0-2	0	4.0-8.0	5-30									
	5-63	10-15	5.0-25	---	7.9-9.6	2-10	0-1	8.0-32.0	13-99									
440: Prideen-----	0-7	8-18	10-20	---	7.4-9.0	0-3	0	16.0-32.0	13-90									
	7-46	20-35	20-35	---	7.4-9.0	1-10	0-5	16.0-32.0	5-12									
	46-61	35-50	30-45	---	7.4-9.0	1-10	1-5	0.0-8.0	5-12									
441: Prideen-----	0-7	8-18	10-20	---	7.4-9.0	0-3	0	16.0-32.0	13-90									
	7-46	20-35	20-35	---	7.4-9.0	1-10	0-5	16.0-32.0	5-12									
	46-61	35-50	30-45	---	7.4-9.0	1-10	1-5	0.0-8.0	5-12									

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
452: Kingsriver-----	0-12	10-18	10-18	10-25	---	7.4-9.0	0	0	0.0-4.0	0-5
	12-60	8-18	5.0-15	---	7.9-9.0	0-15	0	0	2.0-8.0	0-12
453: Kingsriver-----	0-12	10-18	10-18	10-25	---	7.4-9.0	0	0	0.0-4.0	0-5
	12-60	8-18	5.0-15	---	7.4-9.0	0-15	0	0	2.0-8.0	0-12
460: Rad-----	0-6	0-5	0.0-5.0	---	6.6-7.8	0	0	0	0.0-2.0	0-5
	6-20	5-10	5.0-10	---	7.4-9.0	0	0	0	0.0-4.0	0-13
	20-39	5-10	5.0-10	---	7.9-9.6	0-5	0	0	8.0-16.0	20-40
	39-60	5-10	5.0-10	---	7.9-9.6	1-5	0	0	8.0-16.0	20-40
461: Rad-----	0-6	5-10	5.0-10	---	6.6-7.8	0	0	0	0.0-2.0	0-5
	6-20	5-10	5.0-10	---	7.4-9.0	0	0	0	0.0-4.0	0-13
	20-39	5-10	5.0-10	---	7.9-9.6	0-5	0	0	8.0-16.0	20-40
	39-60	5-10	5.0-10	---	7.9-9.6	1-5	0	0	8.0-16.0	20-40
462: Rad-----	0-6	5-10	5.0-10	---	6.6-7.8	0	0	0	0.0-2.0	0-5
	6-20	5-10	5.0-10	---	7.4-9.0	0	0	0	0.0-4.0	0-13
	20-39	5-10	5.0-10	---	7.9-9.6	0-5	0	0	8.0-16.0	20-40
	39-60	5-10	5.0-10	---	7.9-9.6	1-5	0	0	8.0-16.0	20-40
470: Raglan-----	0-6	10-20	8.0-20	---	7.4-9.0	0-3	0	0	0.0-4.0	5-12
	6-14	10-25	8.0-25	---	7.4-9.0	0-3	0	0	0.0-4.0	12-30
	14-64	18-25	15-30	---	7.9-9.0	1-15	0-5	0	8.0-32.0	13-45
471: Raglan-----	0-6	10-20	8.0-20	---	7.9-9.0	0-3	0	0	16.0-32.0	13-45
	6-14	10-25	8.0-25	---	7.9-9.0	0-3	0	0	16.0-32.0	13-60
	14-60	18-25	15-30	---	8.5-9.0	1-5	0-5	0	16.0-32.0	25-99
474: Raglan-----	0-6	10-20	8.0-20	---	7.9-9.0	0-3	0	0	16.0-32.0	13-45
	6-14	10-25	8.0-25	---	7.9-9.0	0-3	0	0	16.0-32.0	13-60
	14-60	18-25	15-30	---	8.5-9.0	1-5	0-5	0	16.0-32.0	25-99
Kleck-----	0-3	8-18	10-25	---	7.4-8.4	0-1	0	0	0.0-4.0	1-12
	3-15	18-35	20-35	---	7.9-9.0	0-5	0-2	0	0.0-4.0	5-12
	15-60	---	---	---	---	---	---	0	---	---
480: Rebel-----	0-4	10-18	15-30	---	6.6-7.8	0-1	0	0	0.0-4.0	0-5
	4-60	10-18	8.0-25	---	7.4-9.0	1-10	0	0	0.0-4.0	0-12
487: Rebel-----	0-18	10-15	12-25	---	6.6-7.8	0-1	0	0	0.0-4.0	0-5
	18-60	10-18	8.0-20	---	7.4-9.0	1-10	0	0	0.0-4.0	1-12

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
490: Rose Creek-----	0-10 10-60	10-15 10-18	10-15 5.0-15	--- ---	7.9-8.4 7.4-8.4	0-3 0-5	0 0	2.0-4.0 2.0-4.0	1-12 1-12
491: Rose Creek-----	0-10 10-60	8-18 8-18	5.0-15 5.0-15	--- ---	7.9-9.6 7.9-9.6	0-3 0-5	0 0	16.0-32.0 16.0-32.0	13-45 13-45
492: Rose Creek-----	0-10 10-60	30-40 10-18	20-35 5.0-15	--- ---	7.9-8.4 7.4-8.4	0-3 0-5	0 0	2.0-4.0 2.0-4.0	1-12 1-12
501: Enko-----	0-6 6-28 28-60	3-6 10-18 10-18	5.0-15 15-25 15-25	--- --- ---	6.6-7.8 6.6-7.8 7.9-9.0	0 0 0-5	0 0 0	0 0 0.0-8.0	0 1-12 13-30
502: Enko-----	0-6 6-28 28-60	3-6 10-18 10-18	5.0-15 15-25 15-25	--- --- ---	6.6-7.8 6.6-7.8 7.9-9.0	0 0 0-5	0 0 0	0 0 0.0-8.0	0 1-12 13-30
Goldrun-----	0-7 7-67	1-8 1-8	2.0-10 2.0-10	--- ---	6.6-8.4 7.9-9.0	0-1 0-1	0 0	0 0.0-2.0	0 0-5
503: Enko-----	0-6 6-12 12-28 28-37 37-60	10-18 10-18 10-18 10-18 10-18	10-20 10-20 5.0-20 5.0-15 5.0-15	--- --- --- --- ---	6.6-8.4 6.6-8.4 7.4-9.0 7.4-9.0 7.9-9.6	0 0 1-5 1-5 1-5	0 0 0 0 0	0.0-4.0 0.0-4.0 0.0-8.0 4.0-16.0 4.0-16.0	0-5 0-5 1-12 13-45 13-45
504: Enko-----	0-6 6-12 12-28 28-37 37-60	10-18 10-18 10-18 10-18 10-18	10-20 10-20 5.0-20 5.0-15 5.0-15	--- --- --- --- ---	6.6-8.4 6.6-8.4 7.4-9.0 7.4-9.0 7.9-9.6	0 0 1-5 1-5 1-5	0 0 0 0 0	0.0-4.0 0.0-4.0 0.0-8.0 4.0-16.0 4.0-16.0	0-5 0-5 1-12 13-45 13-45
Shabliss-----	0-4 4-15 15-20 20-52 52-62	5-10 5-10 --- 5-10 0-5	5.0-10 5.0-10 --- 5.0-10 1.0-5.0	--- --- --- --- ---	6.6-8.4 6.6-9.0 --- 7.9-9.6 7.9-9.6	0-1 0-10 --- 10-20 10-20	0 0 --- 0 0	2.0-4.0 2.0-4.0 --- 4.0-8.0 4.0-8.0	1-12 13-30 --- 13-45 13-45
505: Enko-----	0-28 28-52 52-60	10-18 10-18 2-10	10-20 10-20 1.0-10	--- --- ---	7.4-8.4 7.9-9.0 8.5-9.0	0 0-10 1-10	0 0 0	0.0-2.0 0.0-4.0 2.0-8.0	0-5 5-12 13-45
507: Enko-----	0-6 6-12 12-28 28-37 37-60	10-18 10-18 10-18 10-18 10-18	10-25 10-25 10-25 10-25 10-25	--- --- --- --- ---	6.6-8.4 6.6-8.4 7.4-9.0 7.4-9.0 7.9-9.6	0 0 0-5 0-15 0-5	0 0 0 0 0	0.0-4.0 0.0-4.0 0.0-8.0 4.0-16.0 4.0-16.0	0-5 1-12 5-12 5-12 13-30

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity		Effective cation- exchange capacity	Soil reaction	Calcium carbonate		Gypsum	Salinity	Sodium adsorption ratio
	In	Pct		meq/100g	meq/100g			pH	Pct			
561: Sonoma-----	0-6 6-60	20-27 25-35	20-30 20-45	---	---	7.9-9.0 7.9-9.0	3-12 3-12	0 0	16.0-32.0 2.0-8.0	13-45 0-12		
562: Sonoma-----	0-6 6-60	27-35 25-35	20-30 20-30	---	---	7.9-9.0 7.9-9.0	3-12 3-12	0 0	4.0-8.0 0.0-4.0	5-12 0-12		
563: Sonoma-----	0-6 6-60	27-35 25-35	25-35 20-45	---	---	7.9-9.0 7.9-9.0	3-12 3-12	0 0	16.0-32.0 2.0-8.0	13-45 0-12		
564: Sonoma-----	0-6 6-60	20-27 25-35	15-25 15-30	---	---	7.4-8.4 7.9-9.0	3-12 3-12	0 0	2.0-4.0 2.0-8.0	5-12 0-12		
566: Sonoma-----	0-6 6-60	20-27 25-35	20-30 20-45	---	---	7.9-9.0 7.9-9.0	3-12 3-12	0 0	16.0-32.0 2.0-8.0	13-45 0-12		
Paranat-----	0-19 19-60	18-27 18-35	20-35 15-40	---	---	7.9-9.0 7.9-9.0	1-5 1-10	0 0	16.0-32.0 2.0-8.0	13-45 5-12		
567: Sonoma-----	0-6 6-60	27-35 25-35	20-30 20-30	---	---	7.9-9.0 7.9-9.0	3-12 3-12	0 0	4.0-8.0 0.0-4.0	5-12 0-12		
573: Spinlin-----	0-6 6-36 36-46	18-25 45-60 ---	10-25 30-50 ---	---	---	6.6-7.3 6.6-8.4 ---	0 0-5 ---	0 0 ---	0 0.0-2.0 ---	0 0 ---		
Harcany-----	0-4 4-18 18-72	7-10 5-10 10-15	15-25 10-25 12-30	---	---	6.6-7.3 6.6-7.3 6.6-7.3	0 0 0	0 0 0	0 0 0	0 0 0		
Hackwood-----	0-32 32-60	18-27 18-27	12-35 12-30	---	---	6.1-7.3 6.1-7.3	0 0	0 0	0 0	0 0		
574: Spinlin-----	0-6 6-36 36-46	18-25 45-60 ---	10-25 30-50 ---	---	---	6.6-7.3 6.6-8.4 ---	0 0-5 ---	0 0 ---	0 0.0-2.0 ---	0 0 ---		
Hackwood-----	0-32 32-60	18-27 18-27	12-35 12-30	---	---	6.1-7.3 6.1-7.3	0 0	0 0	0 0	0 0		

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay Pct	Cation- exchange capacity meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction pH	Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct								
Tusel-----	0-22	10-20	10-25	---	6.1-7.3	0	0	0	0	
	22-46	25-35	15-35	---	6.1-7.3	0	0	0	0	
	46-50	---	---	---	---	---	---	---	---	
580: Sumine-----	0-6	10-20	10-20	---	6.6-7.8	0	0	0	0	
	6-28	25-35	15-30	---	6.6-7.8	0	0	0	0	
	28-38	---	---	---	---	---	---	---	---	
Ninemile-----	0-2	20-27	14-20	---	6.1-7.8	0	0	0	0	
	2-14	40-60	38-52	---	6.6-7.8	0	0	0	0	
	14-18	---	---	---	---	---	---	---	---	
Softscrabble----	0-8	10-20	10-20	---	6.1-7.3	0	0	0	0	
	8-60	27-35	15-30	---	6.1-7.3	0	0	0	0	
581: Sumine-----	0-6	10-20	10-20	---	6.6-7.8	0	0	0	0	
	6-28	25-35	15-30	---	6.6-7.8	0	0	0	0	
	28-38	---	---	---	---	---	---	---	---	
Gosumi-----	0-8	10-15	10-20	---	6.6-7.3	0	0	0	0	
	8-32	35-50	20-40	---	6.6-7.3	0	0	0	0	
	32-42	10-15	5.0-10	---	6.6-7.3	0	0	0	0	
	42-50	10-15	5.0-10	---	7.9-9.0	10-20	0	2.0-8.0	0-5	
	50-60	---	---	---	---	---	---	---	---	
Nomara-----	0-4	12-18	10-20	---	6.6-7.8	0	0	0	0	
	4-19	12-18	10-20	---	6.6-7.8	0	0	0	0	
	19-40	20-35	15-30	---	7.4-9.0	1-5	0	0.0-2.0	0-12	
	40-44	---	---	---	---	---	---	---	---	
582: Sumine-----	0-6	10-20	20-30	---	6.6-7.8	0	0	0	0	
	6-28	25-35	20-30	---	6.6-7.8	0	0	0	0	
	28-32	---	---	---	---	---	---	---	---	
Anawalt-----	0-2	18-27	15-30	---	6.6-8.4	0	0	0	0	
	2-16	35-60	25-50	---	6.6-8.4	0-5	0	0	0	
	16-20	---	---	---	---	---	---	---	---	
Ninemile-----	0-2	10-20	15-25	---	6.1-8.4	0	0	0	0	
	2-14	40-60	45-75	---	6.6-8.4	0	0	0	0	
	14-18	---	---	---	---	---	---	---	---	
583: Sumine-----	0-6	10-20	10-20	---	6.6-7.8	0	0	0	0	
	6-28	25-35	15-30	---	6.6-7.8	0	0	0	0	
	28-38	---	---	---	---	---	---	---	---	
Gosumi-----	0-8	10-18	10-23	---	6.6-7.8	0	0	0	0	
	8-32	35-50	23-44	---	6.6-7.8	0	0	0	0	
	32-50	10-15	6.0-20	---	7.4-9.0	0-5	0	2.0-4.0	0-5	
	50-60	---	---	---	---	---	---	---	---	
Harcany-----	0-4	5-10	15-25	---	6.6-7.3	0	0	0	0	
	4-18	5-10	10-25	---	6.6-7.3	0	0	0	0	
	18-72	10-15	12-30	---	6.6-7.3	0	0	0	0	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay		Cation- exchange capacity		Effective cation- exchange capacity		Soil reaction		Calcium carbonate		Gypsum		Salinity		Sodium adsorption ratio	
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm										
Trunk-----	0-6	10-20	10-20	---	6.6-7.8	0	0	0	0-5									
	6-36	35-50	20-45	---	7.9-9.0	0-5	0	0.0-2.0	0-5									
	36-40	---	---	---	---	---	---	---	---									
Quomus-----	0-9	8-18	10-25	---	6.6-7.8	0	0	0	0									
	9-24	10-18	15-30	---	7.4-7.8	0	0	0	0									
	24-60	10-18	10-20	---	7.4-8.4	0	0	0	0-5									
596:																		
Trunk-----	0-6	15-27	10-25	---	6.6-7.8	0	0	0	0-5									
	6-36	35-50	20-45	---	6.6-9.0	0-5	0	0.0-2.0	0-12									
	36-40	---	---	---	---	---	---	---	---									
Burrita-----	0-7	12-18	10-20	---	7.9-9.0	0	0	0	0-5									
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5									
	14-24	---	---	---	---	---	---	---	---									
597:																		
Trunk-----	0-6	10-20	10-20	---	6.6-7.8	0	0	0	0-5									
	6-36	35-50	20-40	---	6.6-9.0	0-5	0	0.0-2.0	0-12									
	36-40	---	---	---	---	---	---	---	---									
Burrita-----	0-7	10-18	10-20	---	7.9-9.0	0	0	0.0-2.0	0-5									
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5									
	14-18	---	---	---	---	---	---	---	---									
Burrita-----	0-7	12-18	10-20	---	7.9-9.0	0	0	0	0-5									
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5									
	14-24	---	---	---	---	---	---	---	---									
600:																		
Valmy-----	0-3	5-15	5.0-15	---	7.9-9.0	0	0	4.0-8.0	1-12									
	3-43	5-15	5.0-25	---	8.5-9.6	1-4	0	0.0-8.0	13-30									
	43-66	1-5	5.0-10	---	8.5-9.6	1-4	0	0.0-8.0	13-45									
603:																		
Valmy-----	0-3	5-15	5.0-15	---	7.9-9.6	0	0	0.0-8.0	1-12									
	3-43	5-15	5.0-25	---	8.5-9.6	1-4	0	0.0-8.0	13-30									
	43-66	1-5	5.0-10	---	8.5-9.6	1-4	0	0.0-8.0	13-45									
Goldrun-----	0-7	1-8	2.0-10	---	6.6-8.4	0-1	0	0	0									
	7-67	1-8	2.0-10	---	7.9-9.0	0-1	0	0.0-2.0	0-5									
604:																		
Valmy-----	0-3	5-15	5.0-15	---	7.9-9.0	0	0	4.0-8.0	1-12									
	3-43	5-15	5.0-25	---	8.5-9.6	1-4	0	0.0-8.0	13-30									
	43-66	1-5	5.0-10	---	8.5-9.6	1-4	0	0.0-8.0	13-45									
Bubus-----	0-5	10-15	10-20	---	7.9-9.6	0-2	0	4.0-8.0	5-30									
	5-63	10-15	5.0-25	---	7.9-9.6	2-10	0-1	8.0-32.0	13-99									
Needle Peak----	0-4	20-27	20-30	---	7.4-8.4	0	0	4.0-8.0	1-12									
	4-60	20-35	20-35	---	7.9-9.0	1-5	0-2	0.0-4.0	13-30									
606:																		
Valmy-----	0-3	7-15	10-20	---	8.5-9.0	0	0	0.0-2.0	1-12									
	3-60	5-15	5.0-20	---	8.5-9.6	1-4	0	0.0-8.0	13-30									

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay Pct	Cation- exchange capacity meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction pH	Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct								
611: Weso-----	0-5	3-8	5.0-15	---	7.9-9.0	0	0	0	0.0-4.0	1-12
	5-11	5-20	5.0-25	---	7.9-9.0	0	0	0	0.0-8.0	5-12
	11-26	4-15	2.0-15	---	7.9-9.0	1-4	0	0	0.0-8.0	13-45
	26-65	4-12	2.0-10	---	7.9-9.0	0-5	0	0	4.0-16.0	13-45
613: Weso-----	0-5	5-18	7.0-25	---	7.9-9.0	0	0	0	0.0-4.0	1-12
	5-11	5-20	5.0-25	---	7.9-9.0	0	0	0	0.0-8.0	5-12
	11-26	4-15	2.0-15	---	7.9-9.0	1-4	0	0	0.0-8.0	13-45
	26-65	4-12	2.0-10	---	7.9-9.0	0-5	0	0	4.0-16.0	13-45
Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0	0-5
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0	0.0-4.0	1-12
	26-61	5-18	10-20	---	7.9-9.6	0-10	0-2	0	4.0-16.0	13-45
Shabliss-----	0-4	5-10	5.0-10	---	6.6-8.4	0-1	0	0	2.0-4.0	1-12
	4-15	5-10	5.0-10	---	6.6-9.0	0-10	0	0	2.0-4.0	13-30
	15-20	---	---	---	---	---	---	---	---	---
	20-52	5-10	5.0-10	---	7.9-9.6	10-20	0	0	4.0-8.0	13-45
	52-62	0-5	1.0-5.0	---	7.9-9.6	10-20	0	0	4.0-8.0	13-45
614: Weso-----	0-5	10-20	15-30	---	7.9-9.0	0	0	0	8.0-16.0	5-12
	5-26	8-18	10-20	---	7.9-9.6	0-4	0	0	8.0-16.0	13-30
	26-60	5-15	5.0-15	---	8.5-9.6	0-4	0-1	0	8.0-16.0	13-30
615: Weso-----	0-5	5-18	7.0-25	---	7.9-9.0	0	0	0	0.0-4.0	1-12
	5-11	5-20	5.0-25	---	7.9-9.0	0	0	0	0.0-8.0	5-12
	11-60	4-15	2.0-15	---	7.9-9.0	0-5	0	0	0.0-8.0	13-45
617: Weso-----	0-5	7-18	10-25	---	7.9-9.0	0	0	0	0.0-4.0	1-12
	5-11	5-20	5.0-25	---	7.9-9.0	0	0	0	0.0-8.0	5-12
	11-26	4-15	2.0-15	---	7.9-9.0	1-4	0	0	0.0-8.0	13-45
	26-65	4-12	2.0-10	---	7.9-9.0	0-5	0	0	4.0-16.0	13-45
618: Weso-----	0-5	5-18	7.0-25	---	7.9-9.0	0	0	0	0.0-4.0	1-12
	5-11	5-20	5.0-25	---	7.9-9.0	0	0	0	0.0-8.0	5-12
	11-26	4-15	2.0-15	---	7.9-9.0	1-4	0	0	0.0-8.0	13-45
	26-65	4-12	2.0-10	---	7.9-9.0	0-5	0	0	4.0-16.0	13-45
Kelk-----	0-13	18-27	15-25	---	6.6-8.4	0-1	0	0	0.0-4.0	1-5
	13-60	18-27	20-30	---	7.4-8.4	1-5	0	0	0.0-8.0	5-12
619: Weso-----	0-5	5-18	7.0-25	---	7.9-9.0	0	0	0	0.0-4.0	1-12
	5-11	5-20	5.0-25	---	7.9-9.0	0	0	0	0.0-8.0	5-12
	11-26	4-15	2.0-15	---	7.9-9.0	1-4	0	0	0.0-8.0	13-45
	26-65	4-12	2.0-10	---	7.9-9.0	0-5	0	0	4.0-16.0	13-45
Rebel-----	0-4	10-18	15-30	---	6.6-7.8	0-1	0	0	0.0-4.0	0-5
	4-60	10-18	8.0-25	---	7.4-9.0	1-10	0	0	0.0-4.0	0-12

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay Pct	Cation- exchange capacity meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction pH	Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct								
620:										
Carstump-----	0-2	12-20	10-20	---	6.6-7.3	0	0	0	0	
	2-9	15-25	10-20	---	6.6-7.8	0	0	0	0	
	9-28	40-55	35-45	---	7.9-9.0	1-5	0	0.0-2.0	0	
	28-32	---	---	---	---	---	---	---	---	
Soughe-----	0-4	10-20	10-25	---	6.6-8.4	0	0	0	0-5	
	4-14	25-35	20-30	---	6.6-8.4	0	0	0.0-2.0	0-5	
	14-18	---	---	---	---	---	---	---	---	
Ninemile-----	0-2	15-25	20-28	---	6.1-7.3	0	0	0	0	
	2-14	40-60	38-54	---	6.6-7.8	0	0	0	0	
	14-24	---	---	---	---	---	---	---	---	
631:										
Burrita-----	0-7	12-18	10-20	---	7.9-9.0	0	0	0	0-5	
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5	
	14-24	---	---	---	---	---	---	---	---	
Panlee-----	0-10	8-15	5.0-15	---	6.6-7.8	0	0	0	0	
	10-42	8-15	5.0-10	---	7.4-8.4	0-5	0	0	0	
	42-45	---	---	---	---	---	---	---	---	
	45-55	---	---	---	---	---	---	---	---	
633:										
Burrita-----	0-7	10-18	10-20	---	7.9-9.0	0	0	0.0-2.0	0-5	
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5	
	14-18	---	---	---	---	---	---	---	---	
Midraw-----	0-4	18-25	10-25	---	6.6-7.8	0	0	0	0-5	
	4-14	35-45	20-35	---	6.6-8.4	0	0	0.0-2.0	0-12	
	14-28	---	---	---	---	---	---	---	---	
	28-32	---	---	---	---	---	---	---	---	
634:										
Burrita-----	0-7	10-18	10-20	---	7.9-9.0	0	0	0.0-2.0	0-5	
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5	
	14-18	---	---	---	---	---	---	---	---	
Devada-----	0-8	15-27	20-30	---	6.1-7.8	0	0	0	0	
	8-17	40-60	32-48	---	6.1-7.8	0	0	0	0	
	17-21	---	---	---	---	---	---	---	---	
Zymans-----	0-4	15-25	15-30	---	6.6-7.8	0	0	0	0	
	4-37	45-60	35-50	---	6.6-8.4	0	0	0.0-2.0	0-5	
	37-56	35-60	30-50	---	6.6-8.4	1-3	0	0.0-4.0	0-12	
	56-60	---	---	---	---	---	---	---	---	
636:										
Burrita-----	0-7	12-18	10-20	---	7.9-9.0	0	0	0	0-5	
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5	
	14-24	---	---	---	---	---	---	---	---	
Rubble Land-----	0-60	0-0	---	---	---	0	0	0	0	
Clementine-----	0-3	15-25	20-35	---	6.6-7.8	0	0	0	0-5	
	3-60	25-35	25-45	---	6.6-9.0	0-5	0	0.0-2.0	1-12	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
Snowmore-----	0-2	15-20	15-20	---	6.6-7.8	0	0	0.0-2.0	0-5
	2-15	20-30	15-30	---	7.4-8.4	0	0	0.0-2.0	0-12
	15-21	25-35	15-30	---	7.9-8.4	0-15	0	0.0-2.0	0-12
	21-24	---	---	---	---	---	---	---	---
	24-28	---	---	---	---	---	---	---	---
658: Burrita-----	0-7	12-18	10-20	---	7.9-9.0	0	0	0.0-2.0	0-5
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5
	14-18	---	---	---	---	---	---	---	---
Panlee-----	0-10	8-15	5.0-15	---	6.6-7.8	0	0	0	0
	10-42	8-15	5.0-10	---	7.4-8.4	0-5	0	0	0
	42-45	---	---	---	---	---	---	---	---
	45-55	---	---	---	---	---	---	---	---
Burrita-----	0-7	10-18	10-20	---	7.9-9.0	0	0	0.0-2.0	0-5
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5
	14-18	---	---	---	---	---	---	---	---
660: Beoska-----	0-5	5-15	5.0-15	---	7.9-9.0	0	0	2.0-4.0	13-30
	5-26	25-35	15-30	---	7.9-9.0	1-10	0	8.0-16.0	13-30
	26-60	5-10	5.0-10	---	7.9-9.0	10-20	0	8.0-16.0	13-90
Oxcorel-----	0-5	8-15	10-20	---	7.9-8.4	0	0	0.0-4.0	1-12
	5-24	35-50	30-45	---	7.9-9.0	0-5	0	0.0-4.0	30-90
	24-60	8-15	5.0-10	---	7.9-9.0	1-5	0	0.0-8.0	40-90
Whirlo-----	0-14	7-10	5.0-10	---	7.4-8.4	0	0	2.0-4.0	1-12
	14-43	5-10	3.0-10	---	7.9-9.0	0	0	2.0-8.0	13-30
	43-60	0-10	0.0-10	---	7.9-9.0	0	0	4.0-16.0	13-45
661: Oxcorel-----	0-5	8-15	10-20	---	7.9-8.4	0	0	0.0-4.0	1-12
	5-24	35-50	30-45	---	7.9-9.0	0-5	0	0.0-4.0	30-90
	24-60	8-15	5.0-10	---	7.9-9.0	1-5	0	0.0-8.0	40-90
Orovada-----	0-8	7-15	5.0-15	---	6.6-8.4	0	0	0	0-5
	8-26	5-18	5.0-15	---	7.4-9.0	0-5	0	0.0-4.0	1-12
	26-61	5-18	5.0-15	---	7.9-9.0	1-15	0	4.0-16.0	13-45
663: Oxcorel-----	0-5	8-15	10-20	---	7.9-8.4	0	0	0.0-4.0	1-12
	5-24	35-50	30-45	---	7.9-9.0	0-5	0	0.0-4.0	30-90
	24-60	8-15	5.0-10	---	7.9-9.0	1-5	0	0.0-8.0	40-90
Weso-----	0-5	5-18	7.0-25	---	7.9-9.0	0	0	0.0-4.0	1-12
	5-11	5-20	5.0-25	---	7.9-9.0	0	0	0.0-8.0	5-12
	11-26	4-15	2.0-15	---	7.9-9.0	1-4	0	0.0-8.0	13-45
	26-65	4-12	2.0-10	---	7.9-9.0	0-5	0	4.0-16.0	13-45
Beoska-----	0-5	5-15	5.0-10	---	7.9-9.0	0	0	2.0-4.0	13-30
	5-26	25-35	15-30	---	7.9-9.0	1-10	0	8.0-16.0	13-30
	26-60	5-15	5.0-10	---	7.9-9.0	10-20	0	8.0-16.0	13-90

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
690:									
Sodhouse-----	0-6	8-15	5.0-10	---	7.9-8.4	0-5	0	0.0-2.0	5-12
	6-11	8-15	5.0-10	---	7.9-9.0	5-15	0	0.0-4.0	13-30
	11-19	8-15	5.0-10	---	7.9-9.0	5-15	0	0.0-4.0	13-45
	19-42	---	---	---	---	---	---	---	---
	42-60	5-12	5.0-10	---	7.9-9.0	5-10	0	0.0-4.0	13-45
Golconda-----	0-13	10-17	10-20	---	7.4-8.4	0	0	0.0-2.0	1-12
	13-22	27-35	15-30	---	7.9-9.6	0-5	0	16.0-32.0	13-45
	22-26	---	---	---	---	---	---	---	---
	26-60	---	---	---	---	---	---	---	---
691:									
Sodhouse-----	0-6	10-18	10-25	---	7.9-8.4	0-5	0	0.0-2.0	5-12
	6-19	10-18	10-25	---	7.9-9.0	0-10	0	0.0-2.0	13-30
	19-42	---	---	---	---	---	---	---	---
	42-60	5-15	5.0-10	---	7.9-9.0	5-10	0	0.0-8.0	13-45
Chiara-----	0-3	10-18	15-28	---	6.6-8.4	0	0	0.0-2.0	0-5
	3-14	10-18	15-28	---	6.6-9.0	0-5	0	0.0-4.0	5-25
	14-60	---	---	---	---	---	---	---	---
700:									
Atlow-----	0-4	15-25	10-25	---	7.4-8.4	0	0	0	0
	4-14	27-35	15-30	---	7.9-9.0	0-5	0	0.0-2.0	0
	14-18	---	---	---	---	---	---	---	---
Gowjai-----	0-11	8-18	5.0-20	---	6.6-7.3	0	0	0	0
	11-36	25-35	15-30	---	6.6-7.3	0	0	0	0
	36-52	5-15	5.0-10	---	7.4-7.8	0	0	0	0
	52-62	---	---	---	---	---	---	---	---
701:									
Atlow-----	0-4	15-25	10-25	---	7.4-8.4	0	0	0	0
	4-14	27-35	15-30	---	7.9-9.0	0-5	0	0.0-2.0	0
	14-18	---	---	---	---	---	---	---	---
Wiskan-----	0-11	10-20	10-20	---	6.6-8.4	0	0	0.0-2.0	0
	11-26	25-35	15-30	---	7.4-8.4	0-5	0	0.0-2.0	0
	26-30	---	---	---	---	---	---	---	---
704:									
Atlow-----	0-4	15-25	10-25	---	7.4-8.4	0	0	0	0
	4-14	27-35	15-30	---	7.9-9.0	0-5	0	0.0-2.0	0
	14-18	---	---	---	---	---	---	---	---
Hoot-----	0-6	14-20	10-15	---	7.9-8.4	0	0	0.0-2.0	1-12
	6-15	25-35	15-30	---	7.4-9.0	0-5	0	0.0-4.0	5-12
	15-19	---	---	---	---	---	---	---	---
Atlow-----	0-4	15-25	10-25	---	7.4-8.4	0	0	0	0
	4-14	27-35	15-30	---	7.9-9.0	0-5	0	0.0-2.0	0
	14-18	---	---	---	---	---	---	---	---
710:									
Xipe-----	0-4	18-27	15-30	---	7.4-8.4	0	0	0.0-4.0	0-5
	4-24	18-35	10-30	---	7.4-8.4	0	0	0.0-4.0	0-12
	24-60	0-5	0.0-5.0	---	7.4-8.4	0	0	0.0-4.0	0-5

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
720: Dewar-----	0-5 5-15 15-31 31-60	15-20 27-35 --- ---	10-27 23-35 --- ---	--- --- --- ---	6.6-8.4 7.4-8.4 --- ---	0 1-5 --- ---	0 0 --- ---	0.0-4.0 0.0-4.0 --- ---	0-12 1-12 --- ---
Sodhouse-----	0-6 6-19 19-42 42-60	10-18 10-18 --- 5-15	5.0-15 5.0-15 --- 5.0-10	--- --- --- ---	7.9-8.4 7.9-9.0 --- 7.9-9.0	0-5 5-15 --- 5-10	0 0 --- 0	0 0.0-2.0 --- 0.0-8.0	1-12 13-30 --- 13-45
721: Dewar-----	0-5 5-15 15-60	18-25 27-35 ---	10-25 15-30 ---	--- --- ---	6.6-8.4 6.6-8.4 ---	0-1 0-5 ---	0 0 ---	0.0-2.0 0.0-4.0 ---	0-5 1-12 ---
Laped-----	0-7 7-15 15-21 21-25	14-22 27-35 --- ---	10-20 15-30 --- ---	--- --- --- ---	7.9-8.4 7.9-9.0 --- ---	0 0-5 --- ---	0 0 --- ---	0 0.0-2.0 --- ---	0-5 2-10 --- ---
Orovada-----	0-8 8-26 26-61	10-15 5-18 5-18	15-20 10-20 10-20	--- --- ---	6.6-8.4 7.4-8.4 7.9-9.6	0 0-5 0-10	0 0 0-2	0 0.0-4.0 4.0-16.0	0-5 1-12 13-45
722: Dewar-----	0-5 5-15 15-31 31-60	10-18 27-35 --- ---	10-25 23-35 --- ---	--- --- --- ---	6.6-8.4 7.4-8.4 --- ---	0 1-5 --- ---	0 0 --- ---	0.0-4.0 0.0-4.0 --- ---	0-10 1-12 --- ---
Burrita-----	0-7 7-14 14-18	12-18 35-50 ---	10-20 20-40 ---	--- --- ---	7.9-9.0 7.9-9.0 ---	0 0 ---	0 0 ---	0.0-2.0 0.0-2.0 ---	0-5 0-5 ---
Flue-----	0-6 6-13 13-35 35-40 40-60	10-18 10-20 35-60 --- 2-8	15-30 15-30 30-50 --- 5.0-15	--- --- --- --- ---	7.4-8.4 7.9-9.0 7.9-9.6 --- 7.9-9.6	0 0-1 4-14 --- 2-10	0 0 0-3 --- 0	0.0-4.0 0.0-4.0 0.0-4.0 --- 2.0-8.0	1-12 5-12 13-50 --- 13-30
724: Dewar-----	0-5 5-15 15-31 31-60	10-18 27-35 --- ---	10-25 23-35 --- ---	--- --- --- ---	6.6-8.4 7.4-8.4 --- ---	0 1-5 --- ---	0 0 --- ---	0.0-4.0 0.0-4.0 --- ---	0-10 1-12 --- ---
Soughe-----	0-4 4-14 14-18	10-20 25-35 ---	10-25 20-30 ---	--- --- ---	6.6-8.4 6.6-8.4 ---	0 0 ---	0 0 ---	0 0 ---	0-5 0-5 ---
Hoot-----	0-6 6-15 15-19	14-20 25-35 ---	10-15 15-30 ---	--- --- ---	7.9-8.4 7.4-9.0 ---	0 0-5 ---	0 0 ---	0.0-2.0 0.0-4.0 ---	1-12 5-12 ---

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct								
726:										
Dewar-----	0-5	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	0-10	
	5-15	27-35	23-35	---	7.4-8.4	1-5	0	0.0-4.0	1-12	
	15-31	---	---	---	---	---	---	---	---	
	31-60	---	---	---	---	---	---	---	---	
Dewar-----	0-5	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	0-10	
	5-15	27-35	23-35	---	7.4-8.4	1-5	0	0.0-4.0	1-12	
	15-31	---	---	---	---	---	---	---	---	
	31-60	---	---	---	---	---	---	---	---	
727:										
Dewar-----	0-5	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	0-10	
	5-15	27-35	23-35	---	7.4-8.4	1-5	0	0.0-4.0	1-12	
	15-31	---	---	---	---	---	---	---	---	
	31-60	---	---	---	---	---	---	---	---	
Midraw-----	0-4	18-27	10-25	---	7.4-8.4	0	0	0	0-5	
	4-14	35-45	20-35	---	7.4-8.4	0	0	0.0-2.0	0-12	
	14-28	---	---	---	---	---	---	---	---	
	28-32	---	---	---	---	---	---	---	---	
Dewar-----	0-5	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	0-12	
	5-15	27-35	23-35	---	7.4-8.4	1-5	0	0.0-4.0	1-12	
	15-60	---	---	---	---	---	---	---	---	
728:										
Dewar-----	0-5	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	0-12	
	5-15	27-35	23-35	---	7.4-8.4	1-5	0	0.0-4.0	1-12	
	15-60	---	---	---	---	---	---	---	---	
Midraw-----	0-4	10-18	15-25	---	6.6-8.4	0	0	0	0-5	
	4-14	35-45	25-35	---	6.6-8.4	0	0	0.0-2.0	0-12	
	14-28	---	---	---	---	---	---	---	---	
	28-32	---	---	---	---	---	---	---	---	
Devada-----	0-5	18-25	10-25	---	6.1-7.8	0	0	0	0	
	5-15	40-60	25-50	---	6.1-7.8	0	0	0	0	
	15-25	---	---	---	---	---	---	---	---	
729:										
Dewar-----	0-5	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	0-10	
	5-15	27-35	23-35	---	7.4-8.4	1-5	0	0.0-4.0	1-12	
	15-31	---	---	---	---	---	---	---	---	
	31-60	---	---	---	---	---	---	---	---	
Boger-----	0-6	8-18	10-20	---	7.4-8.4	0	0	0.0-2.0	0-5	
	6-19	10-18	5.0-15	---	7.9-9.0	1-5	0	0.0-4.0	1-12	
	19-28	---	---	---	---	---	---	---	---	
	28-38	---	---	---	---	---	---	---	---	
732:										
Kelk-----	0-3	18-25	10-25	---	7.9-8.4	0	0	0.0-4.0	5-12	
	3-13	18-25	10-20	---	8.5-9.0	0-1	0	4.0-16.0	13-30	
	13-60	18-25	10-20	---	8.5-9.0	1-5	0	4.0-16.0	13-30	
Kelk-----	0-13	15-20	10-20	---	6.6-8.4	0-1	0	0.0-4.0	1-5	
	13-60	18-27	20-30	---	7.4-8.4	1-5	0	0.0-8.0	5-12	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay Pct	Cation- exchange capacity meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction		Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct				pH	Pct				
733: Kelk-----	0-13	18-27	15-25	---	6.6-8.4	0-1	0	0	0	0.0-4.0	1-5
	13-60	18-27	20-30	---	7.4-8.4	1-5	0	0	0	0.0-8.0	5-12
Enko-----	0-6	3-6	5.0-15	---	6.6-7.8	0	0	0	0	0	0
	6-28	10-18	15-25	---	6.6-7.8	0	0	0	0	0	1-12
	28-60	10-18	15-25	---	7.9-9.0	0-5	0	0	0	0.0-8.0	13-30
734: Kelk-----	0-13	18-27	15-25	---	6.6-8.4	0-1	0	0	0	0.0-4.0	1-5
	13-60	18-27	20-30	---	7.4-8.4	1-5	0	0	0	0.0-8.0	5-12
736: Kelk-----	0-13	15-20	10-20	---	6.6-8.4	0-1	0	0	0	0.0-4.0	1-5
	13-60	18-27	20-30	---	7.4-8.4	1-5	0	0	0	0.0-8.0	5-12
Kortty-----	0-7	8-15	5.0-15	---	7.9-8.4	0	0	0	0	0.0-2.0	5-12
	7-14	25-35	15-30	---	8.5-9.0	0	0	0	0	0.0-2.0	5-12
	14-32	15-25	10-20	---	8.5-9.0	0-5	0	0	0	0.0-8.0	13-30
	32-52	10-20	5.0-15	---	8.5-9.0	1-5	0	0	0	0.0-4.0	13-45
	52-60	---	---	---	---	---	---	---	---	---	---
740: Gowjai-----	0-11	8-18	5.0-20	---	6.6-7.3	0	0	0	0	0	0
	11-36	25-35	15-30	---	6.6-7.3	0	0	0	0	0	0
	36-52	5-15	5.0-10	---	7.4-7.8	0	0	0	0	0	0
	52-62	---	---	---	---	---	---	---	---	---	---
Vanwyper-----	0-7	18-25	15-25	---	6.6-7.8	0	0	0	0	0	0
	7-27	35-55	20-45	---	6.6-7.8	0	0	0	0	0	0-5
	27-31	---	---	---	---	---	---	---	---	---	---
Sumine-----	0-6	10-20	10-20	---	6.6-7.8	0	0	0	0	0	0
	6-28	25-35	15-30	---	6.6-7.8	0	0	0	0	0	0
	28-38	---	---	---	---	---	---	---	---	---	---
750: Snapp-----	0-5	8-15	10-15	---	7.9-8.4	0	0	0	0	0.0-2.0	1-12
	5-21	35-60	25-50	---	8.5-11.0	0-5	0	0	0	2.0-8.0	13-30
	21-25	25-35	20-35	---	7.9-9.0	1-5	0-3	0	0	2.0-8.0	13-45
	25-60	5-10	1.0-8.0	---	8.5-9.0	1-10	0-5	0	0	0.0-8.0	13-45
Oxcorel-----	0-5	8-15	10-20	---	7.9-8.4	0	0	0	0	0.0-4.0	1-12
	5-24	35-50	30-45	---	7.9-9.0	0-5	0	0	0	0.0-4.0	30-90
	24-60	8-15	5.0-10	---	7.9-9.0	1-5	0	0	0	0.0-8.0	40-90
751: Snapp-----	0-5	8-15	10-15	---	7.9-8.4	0	0	0	0	0.0-2.0	1-12
	5-21	35-60	25-50	---	8.5-11.0	0-5	0	0	0	2.0-8.0	13-30
	21-25	25-35	20-35	---	7.9-9.0	1-5	0-3	0	0	2.0-8.0	13-45
	25-60	5-10	1.0-8.0	---	8.5-9.0	1-10	0-5	0	0	0.0-8.0	13-45
Sodhouse-----	0-6	8-15	5.0-15	---	7.9-8.4	0-5	0	0	0	0.0-2.0	5-12
	6-19	8-15	5.0-15	---	7.9-9.0	0-10	0	0	0	0.0-4.0	13-45
	19-42	0-0	---	---	---	---	---	---	0	---	---
	42-60	5-12	5.0-10	---	7.9-9.0	5-10	0	0	0	0.0-4.0	13-45

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct								
752:										
Snapp-----	0-5	8-15	10-15	---	7.9-8.4	0	0	0.0-2.0	1-12	
	5-21	35-60	25-50	---	8.5-11.0	0-5	0	2.0-8.0	13-30	
	21-25	25-35	20-35	---	7.9-9.0	1-5	0-3	2.0-8.0	13-45	
	25-60	5-10	1.0-8.0	---	8.5-9.0	1-10	0-5	0.0-8.0	13-45	
Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0-5	
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	1-12	
	26-61	5-18	10-20	---	7.9-9.6	0-10	0-2	4.0-16.0	13-45	
753:										
Snapp-----	0-5	8-15	10-15	---	7.9-8.4	0	0	0.0-2.0	1-12	
	5-21	35-60	25-50	---	8.5-9.6	0-5	0	2.0-8.0	13-30	
	21-25	25-35	20-35	---	7.9-9.0	1-5	0-3	2.0-8.0	13-45	
	25-60	5-10	1.0-8.0	---	8.5-9.0	1-10	0-5	4.0-8.0	13-45	
Dugchip-----	0-5	10-18	10-20	---	6.6-8.4	0	0	0.0-2.0	0-5	
	5-18	8-18	15-25	---	7.4-9.0	0-5	0	0.0-4.0	1-12	
	18-31	25-35	20-40	---	7.9-9.6	1-5	0-3	8.0-16.0	13-30	
	31-39	---	---	---	---	---	---	---	---	
	39-60	2-8	1.0-5.0	---	7.4-9.0	2-10	0	8.0-16.0	31-45	
Connel-----	0-6	10-15	10-20	---	6.6-8.4	0	0	0	0-5	
	6-20	12-18	10-30	---	7.4-9.6	0-5	0	0.0-2.0	1-12	
	20-60	2-8	2.0-10	---	7.9-9.6	1-10	0-2	0.0-2.0	13-30	
754:										
Snapp-----	0-5	8-15	10-15	---	7.9-8.4	0	0	0.0-2.0	1-12	
	5-21	35-60	25-50	---	8.5-11.0	0-5	0	2.0-8.0	13-30	
	21-25	25-35	20-35	---	7.9-9.0	1-5	0-3	2.0-8.0	13-45	
	25-60	5-10	1.0-8.0	---	8.5-9.0	1-10	0-5	0.0-8.0	13-45	
Puett-----	0-5	8-15	5.0-10	---	7.9-9.0	1-5	0	0.0-2.0	0-5	
	5-10	5-10	5.0-10	---	7.9-9.0	1-5	0	0.0-2.0	5-12	
	10-14	---	---	---	---	---	---	---	---	
755:										
Snapp-----	0-5	10-18	10-20	---	7.9-8.4	0	0	0.0-4.0	1-12	
	5-21	35-60	25-50	---	8.5-11.0	0-5	0	2.0-8.0	13-30	
	21-25	25-35	20-35	---	7.9-9.0	1-5	0-3	2.0-8.0	13-45	
	25-60	5-10	1.0-8.0	---	8.5-9.0	1-10	0-5	0.0-8.0	13-45	
Connel-----	0-6	10-15	10-20	---	6.6-8.4	0	0	0	0-5	
	6-20	12-18	10-30	---	7.4-9.6	0-5	0	0.0-2.0	1-12	
	20-60	2-8	2.0-10	---	7.9-9.6	1-10	0-2	0.0-2.0	13-30	
756:										
Snapp-----	0-5	8-15	10-15	---	7.9-8.4	0	0	0.0-2.0	1-12	
	5-21	35-60	25-50	---	8.5-11.0	0-5	0	2.0-8.0	13-30	
	21-25	25-35	20-35	---	7.9-9.0	1-5	0-3	2.0-8.0	13-45	
	25-60	5-10	1.0-8.0	---	8.5-9.0	1-10	0-5	0.0-8.0	13-45	
Adelaide-----	0-3	6-18	10-20	---	6.6-7.8	0-2	0	0.0-2.0	1-12	
	3-11	6-18	10-20	---	7.4-9.0	0-2	0	4.0-8.0	13-45	
	11-16	---	---	---	---	---	---	---	---	
	16-28	27-40	15-40	---	7.9-9.6	1-10	0-3	8.0-16.0	31-90	
	28-35	---	---	---	---	---	---	---	---	
	35-60	0-5	5.0-15	---	8.5-9.0	5-15	0-2	0.0-4.0	13-45	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
Bilbo-----	0-13	15-25	10-25	---	6.6-7.8	0	0	0	0
	13-40	35-50	20-40	---	6.6-7.8	0	0	0.0-2.0	0-12
	40-60	5-15	5.0-10	---	7.4-8.4	10-20	0	0.0-2.0	1-12
782:									
Dacker-----	0-7	10-20	15-20	---	6.6-7.8	0	0	0	0
	7-18	27-35	25-35	---	7.4-8.4	0	0	0.0-4.0	0-5
	18-22	18-25	20-25	---	7.9-9.0	1-10	0	4.0-8.0	1-12
	22-26	---	---	---	---	---	---	---	---
Devada-----	0-5	14-18	10-20	---	6.1-7.8	0	0	0	0
	5-15	40-60	25-50	---	6.1-7.8	0	0	0	0
	15-25	---	---	---	---	---	---	---	---
Snowmore-----	0-2	15-20	15-20	---	6.6-7.8	0	0	0.0-2.0	0-5
	2-15	20-30	15-30	---	7.4-8.4	0	0	0.0-2.0	0-12
	15-21	25-35	15-30	---	7.9-8.4	0-15	0	0.0-2.0	0-12
	21-24	---	---	---	---	---	---	---	---
	24-28	---	---	---	---	---	---	---	---
790:									
Rio King-----	0-12	8-18	15-25	---	6.6-7.8	0	0	0.0-2.0	0
	12-72	8-18	15-25	---	6.6-7.8	0	0	0.0-2.0	0-5
Clementine-----	---	---	---	---	---	---	---	---	---
791:									
Rio King-----	0-12	8-18	10-25	---	7.9-9.0	0	0	4.0-8.0	0-5
	12-60	8-18	10-25	---	7.9-9.6	0-5	0	4.0-16.0	1-12
800:									
Udelope-----	0-2	7-18	10-25	---	5.6-7.3	0	0	0	0
	2-10	8-18	10-25	---	5.6-7.3	0	0	0	0
	10-18	8-18	10-25	---	5.6-7.3	0	0	0	0
	18-22	---	---	---	---	---	---	---	---
Bregar-----	0-1	12-25	10-20	---	6.1-7.8	0	0	0	0
	1-9	25-35	15-30	---	6.1-7.8	0	0	0	0
	9-13	---	---	---	---	---	---	---	---
801:									
Udelope-----	0-2	7-18	10-25	---	5.6-7.3	0	0	0	0
	2-10	8-18	10-25	---	5.6-7.3	0	0	0	0
	10-18	8-18	10-25	---	5.6-7.3	0	0	0	0
	18-22	---	---	---	---	---	---	---	---
Hackwood-----	0-32	18-27	12-35	---	6.1-7.3	0	0	0	0
	32-60	18-27	12-30	---	6.1-7.3	0	0	0	0
Tusel-----	0-22	10-20	10-25	---	6.1-7.3	0	0	0	0
	22-46	25-35	15-35	---	6.1-7.3	0	0	0	0
	46-50	---	---	---	---	---	---	---	---
810:									
Batan-----	0-4	5-15	3.0-12	---	7.9-9.0	1-5	0	8.0-16.0	13-30
	4-60	20-30	12-24	---	8.5-9.0	5-10	0-3	8.0-32.0	13-45

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay Pct	Cation- exchange capacity meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction		Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct				pH					
Goldrun-----	0-7 7-67	1-8 1-8	2.0-10 2.0-10	---	---	6.6-8.4 7.9-9.0	0-1 0-1	0 0	0 0	0 0.0-2.0	0 0-5
811: Batan-----	0-4 4-60	10-15 20-30	6.0-12 12-24	---	---	7.9-9.0 8.5-9.0	1-5 5-10	0 0-3	0 0	8.0-16.0 8.0-32.0	13-30 13-45
Batan-----	0-4 4-60	2-5 20-30	2.0-10 20-40	---	---	7.9-8.4 8.5-9.0	1-5 5-10	0 0-2	0 0	4.0-8.0 4.0-32.0	1-12 13-30
813: Batan-----	0-4 4-60	10-15 20-30	6.0-12 12-24	---	---	7.9-9.0 8.5-9.0	1-5 5-10	0 0-3	0 0	8.0-16.0 8.0-32.0	13-30 13-45
815: Batan-----	0-4 4-60	10-15 20-30	6.0-12 12-24	---	---	7.9-9.0 8.5-9.0	1-5 5-10	0 0-3	0 0	8.0-16.0 8.0-32.0	13-30 13-45
Prideen-----	0-7 7-46 46-61	8-18 20-35 35-50	10-20 20-35 30-45	---	---	7.4-9.0 7.4-9.0 7.4-9.0	0-3 1-10 1-10	0 0-5 1-5	0 0 0	16.0-32.0 16.0-32.0 0.0-8.0	13-90 5-12 5-12
Wendane-----	0-20 20-35 35-60	15-25 15-25 27-35	15-25 15-25 25-40	---	---	8.5-9.6 7.9-9.6 7.9-9.6	5-15 5-15 5-15	0 0 0	0 0 0	16.0-50.0 16.0-32.0 16.0-32.0	13-99 1-12 1-5
818: Batan-----	0-4 4-60	2-5 20-30	2.0-10 20-40	---	---	7.9-8.4 8.5-9.0	1-5 5-10	0 0-2	0 0	4.0-8.0 4.0-32.0	1-12 13-30
Bubus-----	0-5 5-60	0-8 10-15	1.0-7.0 6.0-12	---	---	7.9-9.0 7.9-9.0	0 0-5	0 0-5	0 0	4.0-8.0 8.0-16.0	1-12 13-99
Goldrun-----	0-7 7-67	1-8 1-8	2.0-10 2.0-10	---	---	6.6-8.4 7.9-9.0	0-1 0-1	0 0	0 0	0 0.0-2.0	0 0-5
823: Whirlo-----	0-14 14-43 43-60	10-15 5-10 0-10	5.0-10 5.0-10 0.0-10	---	---	7.4-8.4 7.9-9.0 7.9-9.0	0 0 1-5	0 0 0	0 0 0	2.0-4.0 2.0-8.0 4.0-16.0	1-12 13-30 13-45
Orovada-----	0-8 8-26 26-61	10-15 5-18 5-18	15-20 10-20 10-20	---	---	6.6-8.4 7.4-8.4 7.9-9.6	0 0-5 0-10	0 0 0-2	0 0 0	0 0.0-4.0 4.0-16.0	0-5 1-12 13-45
Snapp-----	0-5 5-21 21-25 25-60	8-15 35-60 25-35 5-10	10-15 25-50 20-35 1.0-8.0	---	---	7.9-8.4 8.5-9.6 7.9-9.0 8.5-9.0	0 0-5 1-5 1-10	0 0 0-3 0-5	0 0 0 0	0.0-2.0 2.0-8.0 2.0-8.0 4.0-8.0	1-12 13-30 13-45 13-45
825: Whirlo-----	0-14 14-43 43-60	7-10 5-10 0-10	5.0-10 3.0-10 0.0-10	---	---	7.4-8.4 7.9-9.0 7.9-9.0	0 0 0	0 0 0	0 0 0	2.0-4.0 2.0-8.0 4.0-16.0	1-12 13-30 13-45
Oxcorel-----	0-5 5-24 24-60	8-15 35-50 8-15	10-20 30-45 5.0-10	---	---	7.9-8.4 7.9-9.0 7.9-9.0	0 0-5 1-5	0 0 0	0 0 0	0.0-4.0 0.0-4.0 0.0-8.0	1-12 30-90 40-90

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct		meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
Weso-----	0-5	5-18		7.0-25	---	7.9-9.0	0	0	0.0-4.0	1-12
	5-11	5-20		5.0-25	---	7.9-9.0	0	0	0.0-8.0	5-12
	11-26	4-15		2.0-15	---	7.9-9.0	1-4	0	0.0-8.0	13-45
	26-65	4-12		2.0-10	---	7.9-9.0	0-5	0	4.0-16.0	13-45
831:										
Boton-----	0-15	12-18		7.0-15	---	7.9-9.6	1-5	0	0.0-4.0	13-30
	15-21	18-27		11-22	---	7.9-9.6	5-20	0-5	8.0-16.0	46-99
	21-60	18-27		11-22	---	8.5-9.6	5-20	0-5	16.0-32.0	46-99
Playas-----	0-6	35-40		30-35	---	8.5-9.6	1-5	1-5	16.0-32.0	46-90
	6-60	35-70		30-60	---	8.5-9.6	1-10	1-10	16.0-32.0	46-90
833:										
Boton-----	0-15	8-18		5.0-15	---	7.9-9.6	1-5	0	0.0-4.0	13-30
	15-21	18-27		11-22	---	7.9-9.6	5-20	0-5	8.0-16.0	46-99
	21-60	18-27		11-22	---	8.5-9.6	5-20	0-5	16.0-32.0	46-99
Isolde-----	0-3	0-5		0.0-5.0	---	6.6-8.4	0	0	4.0-8.0	0-12
	3-60	0-5		0.0-5.0	---	6.6-8.4	0-10	0	0.0-4.0	0-12
Boton-----	0-15	2-8		1.0-7.0	---	7.9-9.0	0	0	0.0-4.0	1-12
	15-21	18-27		11-22	---	7.9-9.0	5-20	0-5	8.0-16.0	13-90
	21-60	18-27		11-22	---	8.5-9.0	5-20	0-5	8.0-32.0	31-99
834:										
Boton-----	0-15	0-5		1.0-5.0	---	7.9-8.4	0	0	0.0-4.0	0-5
	15-21	18-27		11-22	---	7.9-9.0	5-20	0-5	4.0-8.0	13-46
	21-60	18-27		11-22	---	8.5-9.0	5-20	0-5	8.0-16.0	31-90
Davey-----	0-5	5-10		5.0-15	---	6.6-7.8	0	0	0	0
	5-14	10-15		10-25	---	6.6-8.4	0	0	0.0-2.0	0-5
	14-67	2-8		2.0-10	---	7.9-9.0	0-10	0-1	0.0-2.0	0-5
840:										
Dugchip-----	0-5	10-18		10-20	---	6.6-8.4	0	0	0.0-2.0	0-5
	5-18	8-18		15-25	---	7.4-9.0	0-5	0	0.0-4.0	1-12
	18-31	25-35		20-40	---	7.9-9.6	1-5	0-3	8.0-16.0	13-30
	31-39	---		---	---	---	---	---	---	---
	39-60	2-8		1.0-5.0	---	7.4-9.0	2-10	0	8.0-16.0	31-45
Flue-----	0-6	10-18		15-30	---	7.4-8.4	0	0	0.0-4.0	1-12
	6-13	10-20		15-30	---	7.9-9.0	0-1	0	0.0-4.0	5-12
	13-35	35-60		30-50	---	7.9-9.6	4-14	0-3	0.0-4.0	13-50
	35-40	---		---	---	---	---	---	---	---
	40-60	2-7		5.0-15	---	7.9-9.6	2-10	0	2.0-8.0	13-30
Dewar-----	0-5	10-18		10-25	---	6.6-8.4	0	0	0.0-4.0	0-10
	5-15	27-35		23-35	---	7.4-8.4	1-5	0	0.0-4.0	1-12
	15-31	---		---	---	---	---	---	---	---
	31-60	---		---	---	---	---	---	---	---
842:										
Dugchip-----	0-5	10-18		10-20	---	6.6-8.4	0	0	0.0-2.0	0-5
	5-18	8-18		15-25	---	7.4-9.0	0-5	0	0.0-4.0	1-12
	18-31	25-35		20-40	---	7.9-9.6	1-5	0-3	8.0-16.0	13-30
	31-39	---		---	---	---	---	---	---	---
	39-60	2-8		1.0-5.0	---	7.4-9.0	2-10	0	8.0-16.0	31-45

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay Pct	Cation- exchange capacity meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction pH	Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct								
Tusel-----	0-16	10-20	10-25	---	6.1-7.3	0	0	0	0	
	16-46	25-35	15-35	---	6.1-7.3	0	0	0	0	
	46-50	---	---	---	---	---	---	---	---	
Anawalt-----	0-2	18-27	15-30	---	6.6-8.4	0	0	0	0	
	2-16	35-60	25-50	---	6.6-8.4	0-5	0	0	0	
	16-20	---	---	---	---	---	---	---	---	
884: Cleavage-----	0-7	15-25	15-25	---	6.6-7.8	0	0	0	0	
	7-16	20-35	15-30	---	6.6-7.8	0	0	0	0	
	16-20	---	---	---	---	---	---	---	---	
Anawalt-----	0-2	18-27	15-30	---	6.6-8.4	0	0	0	0	
	2-16	35-60	25-50	---	6.6-8.4	0-5	0	0	0	
	16-20	---	---	---	---	---	---	---	---	
Tusel-----	0-16	10-20	10-25	---	6.1-7.3	0	0	0	0	
	16-46	25-35	15-35	---	6.1-7.3	0	0	0	0	
	46-50	---	---	---	---	---	---	---	---	
885: Cleavage-----	0-7	15-25	10-25	---	6.6-7.8	0	0	0	0	
	7-16	20-35	15-30	---	6.6-7.8	0	0	0	0	
	16-20	---	---	---	---	---	---	---	---	
Cleavage-----	0-7	15-25	10-25	---	6.6-7.8	0	0	0	0	
	7-16	20-35	15-30	---	6.6-7.8	0	0	0	0	
	16-20	---	---	---	---	---	---	---	---	
Reluctan-----	0-9	14-18	10-20	---	6.6-7.8	0	0	0	0	
	9-38	25-35	20-35	---	6.6-7.8	0	0	0	0	
	38-42	---	---	---	---	---	---	---	---	
886: Cleavage-----	0-7	15-25	10-25	---	6.6-7.8	0	0	0	0	
	7-16	20-35	15-30	---	6.6-7.8	0	0	0	0	
	16-20	---	---	---	---	---	---	---	---	
Bullump-----	0-13	15-25	15-30	---	6.1-7.8	0	0	0	0	
	13-23	15-25	10-20	---	6.1-7.8	0	0	0	0	
	23-52	25-35	15-30	---	6.1-7.8	0	0	0	0	
	52-56	---	---	---	---	---	---	---	---	
891: Softscrabble----	0-8	10-20	10-20	---	6.1-7.3	0	0	0	0	
	8-60	27-35	20-35	---	6.1-7.3	0	0	0	0	
Cleavage-----	0-7	15-25	10-25	---	6.6-7.8	0	0	0	0	
	7-16	20-35	15-30	---	6.6-7.8	0	0	0	0	
	16-20	---	---	---	---	---	---	---	---	
Harcany-----	0-4	10-15	15-25	---	6.6-7.3	0	0	0	0	
	4-18	5-10	10-20	---	6.6-7.3	0	0	0	0	
	18-72	10-15	10-20	---	6.6-7.3	0	0	0	0	
892: Softscrabble----	0-8	10-20	10-20	---	6.1-7.3	0	0	0	0	
	8-60	27-35	15-30	---	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 meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction pH	Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct							
907: Roca-----	0-6 6-37 37-41	18-25 35-50 ---	25-35 30-40 ---	--- --- ---	6.6-7.8 6.6-8.4 ---	0 0-10 ---	0 0 ---	0 0.0-2.0 ---	0 0-5 ---
Climine-----	0-8 8-25 25-60	12-18 10-18 18-35	10-25 5.0-15 10-30	--- --- ---	6.6-7.8 6.6-7.8 6.6-7.8	0 0 0	0 0 0	0 0 0	0 0 0
909: Roca-----	0-6 6-37 37-41	18-25 35-50 ---	10-25 20-40 ---	--- --- ---	6.1-7.8 6.6-8.4 ---	0 0-10 ---	0 0 ---	0 0.0-2.0 ---	0 0-5 ---
Nomara-----	0-4 4-19 19-40 40-44	12-18 12-18 20-35 ---	10-20 10-20 15-30 ---	--- --- ---	6.6-7.8 6.6-7.8 7.4-9.0 ---	0 0 1-5 ---	0 0 0 ---	0 0 0.0-2.0 ---	0 0 0-12 ---
911: Barnard-----	0-7 7-27 27-40 40-60	10-20 35-50 --- 10-15	15-30 25-50 --- 10-20	--- --- ---	6.6-7.3 6.6-7.8 --- 7.4-9.0	0 0 --- 0	0 0 --- 0	0 0 --- 0.0-2.0	0 0 --- 0
Barnard-----	0-7 7-27 27-40 40-60	18-25 35-50 --- 10-15	20-30 25-50 --- 10-20	--- --- ---	6.6-7.3 6.6-7.8 --- 7.4-9.0	0 0 --- 0	0 0 --- 0	0 0 --- 0.0-2.0	0 0 --- 0
Devada-----	0-5 5-15 15-25	14-18 40-60 ---	10-20 25-50 ---	--- --- ---	6.1-7.8 6.1-7.8 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---
921: Walti-----	0-4 4-8 8-20 20-24	10-20 27-35 50-60 ---	10-20 18-25 30-36 ---	--- --- ---	6.6-7.8 6.6-7.8 6.6-7.8 ---	0 0 0 ---	0 0 0 ---	0 0 0 ---	0 0 0 ---
Reluctan-----	0-9 9-38 38-42	15-20 25-35 ---	10-20 15-30 ---	--- ---	6.6-7.8 6.6-7.8 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---
Sumine-----	0-6 6-28 28-32	8-18 25-35 ---	20-30 20-30 ---	--- ---	6.6-7.8 6.6-7.8 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---
922: Walti-----	0-4 4-8 8-20 20-24	10-20 27-35 50-60 ---	10-20 18-25 30-36 ---	--- --- ---	6.6-7.8 6.6-7.8 6.6-7.8 ---	0 0 0 ---	0 0 0 ---	0 0 0 ---	0 0 0 ---

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct								
Soughe-----	0-4	10-20	10-25	---	6.6-8.4	0	0	0	0-5	
	4-14	25-35	20-30	---	6.6-8.4	0	0	0	0-5	
	14-18	---	---	---	---	---	---	---	---	
954: Puffer-----	0-2	10-18	5.0-15	---	7.4-9.0	1-5	0	0.0-2.0	0-5	
	2-9	10-18	5.0-15	---	7.4-9.0	5-15	0	0.0-2.0	0-5	
	9-13	---	---	---	---	---	---	---	---	
Xine-----	0-11	10-18	10-20	---	7.4-8.4	1-5	0	0	0	
	11-24	10-18	5.0-15	---	7.9-9.0	10-20	0	0.0-2.0	0	
	24-28	---	---	---	---	---	---	---	---	
955: Puffer-----	0-2	10-18	5.0-15	---	7.4-9.0	1-5	0	0.0-2.0	0-5	
	2-9	10-18	5.0-15	---	7.4-9.0	5-15	0	0.0-2.0	0-5	
	9-13	---	---	---	---	---	---	---	---	
Soughe-----	0-4	10-20	10-25	---	6.6-8.4	0	0	0	0-5	
	4-14	25-35	20-30	---	6.6-8.4	0	0	0.0-2.0	0-5	
	14-18	---	---	---	---	---	---	---	---	
960: Zevadex-----	0-9	10-20	10-20	---	6.6-7.8	0	0	0	0	
	9-20	20-35	10-30	---	7.4-8.4	0-4	0	0	1-12	
	20-60	10-20	5.0-15	---	7.4-8.4	0-4	0	0.0-2.0	0	
Wieland-----	0-8	8-22	10-20	---	7.4-8.4	0	0	0.0-2.0	0-5	
	8-17	40-55	25-45	---	7.4-9.0	0-5	0	0.0-4.0	2-12	
	17-33	27-35	15-30	---	7.9-9.0	5-20	0	0.0-8.0	2-12	
	33-60	10-20	5.0-15	---	7.9-9.0	5-20	0	0.0-8.0	2-12	
Kelk-----	0-13	15-20	10-20	---	6.6-8.4	0-1	0	0.0-4.0	1-5	
	13-60	18-27	20-30	---	7.4-8.4	1-5	0	0.0-8.0	5-12	
962: Zevadex-----	0-9	10-25	15-30	---	6.6-8.4	0	0	0	0	
	9-20	20-30	25-40	---	7.4-8.4	0	0	0.0-2.0	0-12	
	20-55	12-18	10-20	---	7.4-8.4	0-4	0	0.0-2.0	0-12	
	55-60	8-12	5.0-15	---	7.4-8.4	0-4	0	0.0-2.0	0-12	
Vanwyper-----	0-7	18-25	25-35	---	6.6-7.3	0	0	0	0	
	7-27	35-55	20-30	---	6.6-7.8	0	0	0	0-5	
	27-31	---	---	---	---	---	---	---	---	
963: Zevadex-----	0-9	10-25	15-30	---	6.6-8.4	0	0	0	0	
	9-20	20-30	25-40	---	7.4-8.4	0	0	0.0-2.0	0-12	
	20-55	12-18	10-20	---	7.4-8.4	0-4	0	0.0-2.0	0-12	
	55-60	8-12	5.0-15	---	7.4-8.4	0-4	0	0.0-2.0	0-12	
McConnel-----	0-1	7-15	5.0-15	---	6.6-8.4	0	0	0.0-2.0	0-5	
	1-16	5-15	5.0-20	---	6.6-8.4	0	0	0.0-2.0	0-5	
	16-60	0-5	1.0-5.0	---	7.9-9.0	0-3	0	2.0-32.0	1-12	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Cation- exchange capacity meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction pH	Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct							
984: Snowmore-----	0-2	15-20	15-20	---	6.6-7.8	0	0	0.0-2.0	0-5
	2-15	20-30	15-30	---	7.4-7.8	0	0	0.0-2.0	0-12
	15-21	25-35	15-30	---	7.9-8.4	0-15	0	0.0-2.0	0-12
	21-24	---	---	---	---	---	---	---	---
	24-28	---	---	---	---	---	---	---	---
Vanwyper-----	0-7	18-25	15-25	---	6.6-7.8	0	0	0	0
	7-27	35-55	20-45	---	6.6-7.8	0	0	0	0-5
	27-31	---	---	---	---	---	---	---	---
Devada-----	0-5	14-18	10-20	---	6.1-7.8	0	0	0	0
	5-15	40-60	25-50	---	6.1-7.8	0	0	0	0
	15-25	---	---	---	---	---	---	---	---
990: Playas-----	0-6	35-40	30-35	---	8.5-9.6	1-5	1-5	16.0-32.0	46-90
	6-60	35-70	30-60	---	8.5-9.6	1-10	1-10	16.0-32.0	46-90
994: Dune Land-----	0-6	0-1	0.0-1.0	---	7.4-8.4	0	0	0	0
	6-60	0-1	0.0-1.0	---	7.4-8.4	0	0	0	0
995: Dune Land-----	0-6	0-1	0.0-1.0	---	7.4-8.4	0	0	0	0
	6-60	0-1	0.0-1.0	---	7.4-8.4	0	0	0	0
Goldrun-----	0-7	1-8	2.0-10	---	6.6-8.4	0-1	0	0	0
	7-67	1-8	2.0-10	---	7.9-9.0	0-1	0	0.0-2.0	0-5
Davey-----	0-5	3-6	5.0-15	---	6.6-7.8	0	0	0.0-2.0	0-5
	5-20	10-15	10-25	---	6.6-7.8	0	0	0.0-4.0	0-5
	20-50	5-10	2.0-10	---	7.9-9.0	0-10	0-1	8.0-16.0	0-12
	50-60	---	---	---	---	---	---	---	---
998: Dumps-----	0-60	0-1	---	---	---	---	---	0	---
Pits-----	0-60	0-0	---	---	---	0	0	0	0
999: Slickens-----	0-10	0-10	---	---	---	---	---	8.0-32.0	---
	10-60	---	---	---	---	---	---	0	---
1004: Soughe-----	0-4	10-20	10-20	---	6.6-8.4	0	0	0	0-5
	4-14	25-35	15-30	---	6.6-8.4	0	0	0.0-2.0	0-5
	14-18	---	---	---	---	---	---	---	---
Davey-----	0-5	3-6	5.0-15	---	6.6-7.8	0	0	0.0-2.0	0-5
	5-20	10-15	10-25	---	6.6-7.8	0	0	0.0-4.0	0-5
	20-50	5-10	2.0-10	---	7.9-9.0	0-10	0-1	8.0-16.0	0-12
	50-60	---	---	---	---	---	---	---	---
1005: Flue-----	0-6	10-18	15-30	---	7.4-8.4	0	0	0.0-4.0	1-12
	6-13	10-20	15-30	---	7.9-9.0	0-1	0	0.0-4.0	5-12
	13-35	35-60	30-50	---	7.9-9.6	4-14	0-3	0.0-4.0	13-50
	35-40	---	---	---	---	---	---	---	---
	40-60	2-7	5.0-15	---	7.9-9.6	2-10	0	2.0-8.0	13-30

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay		Cation- exchange capacity		Effective cation- exchange capacity		Soil reaction		Calcium carbonate		Gypsum		Salinity		Sodium adsorption ratio	
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm										
Soughe-----	0-4	10-18	10-20	---	6.6-8.4	0	0	0	0-5									
	4-14	25-35	15-30	---	6.6-8.4	0	0	0.0-2.0	0-5									
	14-18	---	---	---	---	---	---	---	---									
Soughe-----	0-4	10-20	10-20	---	6.6-8.4	0	0	0	0-5									
	4-14	25-35	15-30	---	6.6-8.4	0	0	0.0-2.0	0-5									
	14-18	---	---	---	---	---	---	---	---									
1007: Soughe-----	0-4	10-20	10-20	---	6.6-8.4	0	0	0	0-5									
	4-14	25-35	15-30	---	6.6-8.4	0	0	0.0-2.0	0-5									
	14-18	---	---	---	---	---	---	---	---									
Fuett-----	0-5	10-20	10-20	---	7.9-9.0	1-5	0	0.0-2.0	0-5									
	5-10	5-10	5.0-10	---	7.9-9.0	1-5	0	0.0-2.0	5-12									
	10-14	---	---	---	---	---	---	---	---									
Burrita-----	0-7	12-18	10-20	---	7.9-9.0	0	0	0.0-2.0	0-5									
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5									
	14-18	---	---	---	---	---	---	---	---									
1010: Bartome-----	0-6	12-20	15-25	---	6.6-8.4	0	0	0	0									
	6-16	27-35	15-30	---	6.6-9.0	0-5	0	0.0-4.0	0-5									
	16-33	---	---	---	---	---	---	---	---									
	33-60	---	---	---	---	---	---	---	---									
Chiara-----	0-3	10-18	15-28	---	6.6-8.4	0	0	0.0-2.0	0-5									
	3-14	10-18	15-28	---	6.6-9.0	0-5	0	0.0-4.0	5-25									
	14-60	---	---	---	---	---	---	---	---									
1020: Wholan-----	0-6	5-15	3.0-10	---	7.4-9.6	0-1	0	2.0-4.0	0-12									
	6-60	5-15	3.0-10	---	7.4-9.6	0-15	0	4.0-16.0	0-12									
1023: Wholan-----	0-6	5-15	3.0-10	---	7.4-9.6	0-1	0	2.0-4.0	0-12									
	6-60	5-15	3.0-10	---	7.4-9.6	0-15	0	4.0-16.0	0-12									
Bliss-----	0-4	8-14	10-20	---	6.6-7.8	0	0	0	0-5									
	4-22	8-16	10-30	---	6.6-8.4	0	0	0.0-2.0	1-5									
	22-28	5-12	10-25	---	8.5-9.6	1-15	0	0.0-4.0	1-12									
	28-56	---	---	---	---	---	---	---	---									
	56-62	---	---	---	---	---	---	---	---									
Enko-----	0-6	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	0-5									
	6-12	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	1-12									
	12-28	10-18	10-25	---	7.4-9.0	0-5	0	0.0-8.0	5-12									
	28-37	10-18	10-25	---	7.4-9.0	0-15	0	4.0-16.0	5-12									
	37-60	10-18	10-25	---	7.9-9.6	0-5	0	4.0-16.0	13-30									
1025: Wholan-----	0-6	5-15	3.0-10	---	7.4-9.6	0-1	0	2.0-4.0	0-12									
	6-60	5-15	3.0-10	---	7.4-9.6	0-15	0	4.0-16.0	0-12									
1030: Bullump-----	0-23	15-25	15-30	---	6.1-7.8	0	0	0	0									
	23-52	25-35	10-25	---	6.1-7.8	0	0	0	0									
	52-56	---	---	---	---	---	---	---	---									

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct		meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
Westbutte-----	0-10	18-25		15-30	---	6.6-7.3	0	0	0	0
	10-33	18-25		10-20	---	6.6-7.3	0	0	0	0
	33-37	---		---	---	---	---	---	---	---
Harcany-----	0-4	10-15		15-25	---	6.6-7.3	0	0	0	0
	4-18	5-10		10-20	---	6.6-7.3	0	0	0	0
	18-72	10-15		10-20	---	6.6-7.3	0	0	0	0
1031:										
Bullump-----	0-23	15-25		15-30	---	6.1-7.8	0	0	0	0
	23-52	25-35		10-25	---	6.1-7.8	0	0	0	0
	52-56	---		---	---	---	---	---	---	---
Sumine-----	0-6	10-20		10-20	---	6.6-7.8	0	0	0	0
	6-28	25-35		15-30	---	6.6-7.8	0	0	0	0
	28-38	---		---	---	---	---	---	---	---
Cleavage-----	0-7	15-20		20-30	---	6.6-7.8	0	0	0	0
	7-16	20-35		20-40	---	6.6-7.8	0	0	0	0
	16-20	---		---	---	---	---	---	---	---
1050:										
Argenta-----	0-4	5-10		5.0-15	---	8.5-9.6	0-3	0	16.0-32.0	46-99
	4-60	8-18		10-25	---	7.9-9.0	1-10	0-5	4.0-32.0	13-45
1051:										
Argenta-----	0-4	5-10		5.0-15	---	8.5-9.6	0-3	0	16.0-32.0	46-99
	4-60	8-18		10-25	---	7.9-9.0	1-10	0-5	4.0-32.0	13-45
Preble-----	0-10	10-15		10-25	---	8.5-9.0	1-3	0	16.0-32.0	13-45
	10-55	8-15		5.0-20	---	7.4-9.0	1-10	0	8.0-16.0	13-45
	55-65	0-5		0.0-5.0	---	8.5-9.0	0-10	0	8.0-16.0	5-12
1052:										
Argenta-----	0-4	10-15		10-20	---	8.5-9.6	0-3	0	16.0-32.0	46-99
	4-60	8-18		10-25	---	7.9-9.0	1-10	0-5	4.0-32.0	13-45
Preble-----	0-10	10-15		10-25	---	8.5-9.0	1-3	0	16.0-32.0	13-45
	10-55	8-15		5.0-20	---	7.4-9.0	1-10	0	8.0-16.0	13-45
	55-65	0-5		0.0-5.0	---	8.5-9.0	0-10	0	8.0-16.0	5-12
1055:										
Argenta-----	0-4	8-18		10-25	---	8.5-9.6	0-3	0	16.0-32.0	46-99
	4-60	8-18		10-25	---	7.9-9.0	1-10	0-5	4.0-32.0	13-45
1060:										
Paranat-----	0-19	27-35		30-40	---	8.5-9.0	1-5	0	4.0-8.0	5-12
	19-60	18-35		15-40	---	8.5-9.0	1-10	0	0.0-4.0	0-12
1061:										
Paranat-----	0-19	18-27		10-30	---	7.9-9.0	0-5	0	0.0-4.0	1-12
	19-60	18-35		10-30	---	7.9-9.0	1-10	0	0.0-2.0	1-12
1064:										
Paranat-----	0-19	18-27		10-30	---	7.9-9.0	0-5	0	0.0-4.0	1-12
	19-60	18-35		10-30	---	7.9-9.0	1-10	0	0.0-2.0	1-12

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
Paranat-----	0-19 19-60	18-27 18-35	20-35 15-40	--- ---	7.9-9.0 7.9-9.0	1-5 1-10	0 0	16.0-32.0 2.0-8.0	13-45 5-12
1066: Paranat-----	0-19 19-60	10-18 18-35	10-20 10-30	--- ---	7.9-9.0 7.9-9.0	0-5 1-10	0 0	0.0-4.0 0.0-2.0	1-12 1-12
1067: Paranat-----	0-19 19-60	18-27 18-35	20-35 15-40	--- ---	7.9-9.0 7.9-9.0	1-5 1-10	0 0	16.0-32.0 2.0-8.0	13-45 5-12
1072: Hoot-----	0-6 6-15 15-19	14-20 25-35 ---	10-15 15-30 ---	--- --- ---	7.9-8.4 7.4-9.0 ---	0 0-5 ---	0 0 ---	0.0-2.0 0.0-4.0 ---	1-12 5-12 ---
Laped-----	0-7 7-15 15-21 21-25	10-18 27-35 --- ---	5.0-15 15-30 --- ---	--- --- --- ---	7.9-8.4 7.9-9.0 --- ---	0 0-5 --- ---	0 0 --- ---	0.0-4.0 2.0-8.0 --- ---	0-12 2-10 --- ---
Rubble Land----	0-60	0-0	---	---	---	0	0	0	0
1075: Hoot-----	0-6 6-15 15-19	10-18 25-35 ---	5.0-15 15-30 ---	--- --- ---	7.9-8.4 7.4-9.0 ---	0 0-1 ---	0 0 ---	0.0-2.0 0.0-4.0 ---	1-12 5-12 ---
Panlee-----	0-10 10-42 42-45 45-55	8-15 8-15 --- ---	5.0-15 5.0-10 --- ---	--- --- --- ---	6.6-7.8 7.4-8.4 --- ---	0 0-5 --- ---	0 0 --- ---	0 0 --- ---	0 0 --- ---
1077: Hoot-----	0-6 6-15 15-19	10-18 25-35 ---	5.0-15 15-30 ---	--- --- ---	7.9-8.4 7.4-9.0 ---	0 0-1 ---	0 0 ---	0.0-2.0 0.0-4.0 ---	1-12 5-12 ---
Soughe-----	0-4 4-14 14-18	10-20 25-35 ---	10-25 20-30 ---	--- --- ---	6.6-8.4 6.6-8.4 ---	0 0 ---	0 0 ---	0 0 ---	0-5 0-5 ---
1078: Hoot-----	0-6 6-15 15-19	10-18 25-35 ---	5.0-15 15-30 ---	--- --- ---	7.9-8.4 7.4-9.0 ---	0 0-1 ---	0 0 ---	0.0-2.0 0.0-4.0 ---	1-12 5-12 ---
Genaw-----	0-5 5-10 10-18 18-22	15-25 18-30 15-24 ---	10-25 10-25 10-20 ---	--- --- --- ---	7.4-8.4 7.9-8.4 7.9-9.0 ---	0 0-5 1-5 ---	0 0 0 ---	0.0-2.0 0.0-4.0 0.0-4.0 ---	0-5 1-12 1-12 ---

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm		
1142: Layview-----	0-8	14-20	10-20	---	6.6-7.8	0	0	0	0	
	8-14	22-35	15-25	---	6.6-7.8	0	0	0	0	
	14-18	---	---	---	---	---	---	---	---	
Udelope-----	0-2	7-18	10-25	---	5.6-7.3	0	0	0	0	
	2-10	8-18	10-25	---	5.6-7.3	0	0	0	0	
	10-18	8-18	10-25	---	5.6-7.3	0	0	0	0	
	18-22	---	---	---	---	---	---	---	---	
1150: Cotant-----	0-7	18-27	10-25	---	6.6-7.8	0	0	0	0	
	7-19	40-60	25-50	---	6.6-7.8	0	0	0	0	
	19-31	---	---	---	---	---	---	---	---	
Say-----	0-9	10-18	10-20	---	6.6-7.8	0	0	0	0	
	9-24	18-25	15-20	---	6.6-7.8	0	0	0	0	
	24-34	4-15	1.0-10	---	6.6-7.8	0	0	0	0	
	34-38	---	---	---	---	---	---	---	---	
Cotant-----	0-7	18-27	10-25	---	6.6-7.8	0	0	0	0	
	7-19	40-60	25-50	---	6.6-7.8	0	0	0	0	
	19-31	---	---	---	---	---	---	---	---	
1151: Cotant-----	0-7	20-27	10-30	---	6.6-7.8	0	0	0	0	
	7-19	40-60	25-50	---	6.6-7.8	0	0	0	0	
	19-23	---	---	---	---	---	---	---	---	
Say-----	0-9	10-18	10-20	---	6.6-7.8	0	0	0	0	
	9-24	18-25	15-20	---	6.6-7.8	0	0	0	0	
	24-34	4-15	1.0-10	---	6.6-7.8	0	0	0	0	
	34-38	---	---	---	---	---	---	---	---	
Gol-----	0-5	12-18	10-20	---	6.6-7.8	0	0	0	0	
	5-14	18-35	10-30	---	6.6-7.8	0	0	0	0	
	14-18	---	---	---	---	---	---	---	---	
1160: Hawsley-----	0-3	0-5	1.0-5.0	---	6.6-8.4	0	0	0	0	
	3-60	0-5	1.0-5.0	---	7.4-9.0	1-5	0	0.0-2.0	1-5	
1161: Hawsley-----	0-3	0-5	1.0-5.0	---	6.6-8.4	0	0	0	0	
	3-60	0-5	1.0-5.0	---	7.4-9.0	1-5	0	0.0-2.0	1-5	
Isolde-----	0-3	0-5	1.0-5.0	---	6.6-8.4	0-1	0	0	0-5	
	3-60	0-5	1.0-5.0	---	6.6-8.4	0-3	0-1	0.0-2.0	0-5	
1162: Hawsley-----	0-3	0-5	1.0-5.0	---	6.6-8.4	0	0	0	0	
	3-60	0-5	1.0-5.0	---	7.4-9.0	1-5	0	0.0-2.0	1-5	
Davey-----	0-5	5-10	5.0-15	---	6.6-7.8	0	0	0	0	
	5-14	10-15	10-25	---	6.6-8.4	0	0	0.0-2.0	0-5	
	14-67	2-8	2.0-10	---	7.9-9.0	0-10	0-1	0.0-2.0	0-5	
Mazuma-----	0-6	10-14	6.0-10	---	7.9-9.6	1-5	0	0.0-4.0	1-5	
	6-60	5-15	3.0-9.0	---	7.9-9.6	1-10	0	4.0-16.0	13-45	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct		meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
1167: Hawsley-----	0-3 3-60	0-5 0-5		1.0-5.0 1.0-5.0	--- ---	6.6-8.4 7.4-9.0	0 1-5	0 0	0 0.0-2.0	0 1-5
1168: Hawsley-----	0-3 3-60	0-5 0-5		1.0-5.0 1.0-5.0	--- ---	6.6-8.4 7.4-9.0	0 1-5	0 0	0 0.0-2.0	0 1-5
Davey-----	0-5 5-14 14-67	5-10 10-15 2-8		5.0-15 10-25 2.0-10	--- --- ---	6.6-7.8 6.6-8.4 7.9-9.0	0 0 0-10	0 0 0-1	0 0.0-2.0 0.0-2.0	0 0-5 0-5
Essal-----	0-2 2-34 34-60	2-5 8-18 2-8		0.0-5.0 5.0-15 0.0-5.0	--- --- ---	7.9-9.0 7.9-9.0 7.9-9.0	10-20 10-20 15-30	0-4 0-4 0-4	0.0-4.0 4.0-8.0 2.0-8.0	1-12 13-45 13-30
1169: Hawsley-----	0-3 3-69	0-5 0-5		1.0-5.0 1.0-5.0	--- ---	6.6-8.4 7.4-9.0	0 1-5	0 0	0 0.0-2.0	0 1-5
Soughe-----	0-4 4-14 14-18	10-18 25-35 ---		10-20 15-30 ---	--- --- ---	6.6-8.4 6.6-8.4 ---	0 0 ---	0 0 ---	0 0.0-2.0 ---	0-5 0-5 ---
Panlee-----	0-10 10-42 42-45 45-55	8-15 8-15 --- ---		5.0-15 5.0-10 --- ---	--- --- --- ---	6.6-7.8 7.4-8.4 --- ---	0 0-5 --- ---	0 0 --- ---	0 0 --- ---	0 0 --- ---
1170: Hunnton-----	0-6 6-12 12-22 22-36 36-60	12-18 20-30 45-55 --- ---		15-25 20-30 30-45 --- ---	--- --- --- --- ---	6.6-8.4 6.6-8.4 6.6-8.4 --- ---	0 0 0 --- ---	0 0 0 --- ---	0.0-4.0 0.0-4.0 0.0-4.0 --- ---	0-5 0-12 1-12 --- ---
Bliss-----	0-4 4-22 22-28 28-60	8-18 8-18 5-12 ---		10-25 10-30 10-25 ---	--- --- --- ---	6.6-7.8 6.6-8.4 8.5-9.0 ---	0 0 0 ---	0 0 1-15 ---	0 0 0.0-4.0 ---	0-5 0-5 1-12 ---
Trunk-----	0-6 6-36 36-40	10-20 35-50 ---		10-20 20-40 ---	--- --- ---	6.6-7.8 6.6-9.0 ---	0 0-5 ---	0 0 ---	0 0.0-2.0 ---	0-5 0-12 ---
1171: Hunnton-----	0-6 6-12 12-22 22-36 36-60	10-18 20-35 45-55 --- 2-10		10-20 10-30 30-45 --- 0.0-5.0	--- --- --- --- ---	7.9-8.4 7.9-8.4 7.4-8.4 --- 7.9-9.0	0 0 0 --- 0-5	0 0 0 --- 0	0 0 0.0-2.0 --- 0.0-8.0	0-5 0-5 1-12 --- 13-30
Dugchip-----	0-5 5-18 18-31 31-39 39-60	10-18 8-18 25-35 --- 2-8		10-20 15-25 20-40 --- 1.0-5.0	--- --- --- --- ---	6.6-8.4 7.4-9.0 7.9-9.6 --- 7.4-9.0	0 0-5 1-5 --- 2-10	0 0 0-3 --- 0	0.0-2.0 0.0-4.0 8.0-16.0 --- 8.0-16.0	0-5 1-12 13-30 --- 31-45

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay Pct	Cation- exchange capacity meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction pH	Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct								
Orovada-----	0-8	10-15	15-20	---	6.6-8.4	0	0	0	0-5	
	8-26	5-18	10-20	---	7.4-8.4	0-5	0	0.0-4.0	1-12	
	26-61	5-18	10-20	---	7.9-9.6	0-10	0-2	4.0-16.0	13-45	
1172: Flue-----	0-6	10-18	15-30	---	7.4-8.4	0	0	0.0-4.0	1-12	
	6-13	10-20	15-30	---	7.9-9.0	0-1	0	0.0-4.0	5-12	
	13-35	35-60	30-50	---	7.9-9.6	4-14	0-3	0.0-4.0	13-50	
	35-40	---	---	---	---	---	---	---	---	
	40-60	2-7	5.0-15	---	7.9-9.6	2-10	0	2.0-8.0	13-30	
Hunnton-----	0-6	10-18	10-20	---	7.9-8.4	0	0	0	0-5	
	6-12	20-35	10-30	---	7.9-8.4	0	0	0	0-5	
	12-22	45-55	30-45	---	7.4-8.4	0	0	0.0-2.0	1-12	
	22-36	---	---	---	---	---	---	---	---	
	36-60	2-10	0.0-5.0	---	7.9-9.0	0-5	0	0.0-8.0	13-30	
McConnel-----	0-16	5-18	5.0-20	---	7.4-7.8	0	0	0.0-2.0	0-5	
	16-60	0-5	1.0-5.0	---	7.9-9.6	0	0	0.0-4.0	1-12	
1173: Hunnton-----	0-6	10-18	10-20	---	7.9-8.4	0	0	0	0-5	
	6-12	20-35	10-30	---	7.9-8.4	0	0	0	0-5	
	12-22	45-55	30-45	---	7.4-8.4	0	0	0.0-2.0	1-12	
	22-36	---	---	---	---	---	---	---	---	
	36-60	2-10	0.0-5.0	---	7.9-9.0	0-5	0	0.0-8.0	13-30	
1174: Hunnton-----	0-6	10-18	10-20	---	7.9-8.4	0	0	0	0-5	
	6-12	20-35	10-30	---	7.9-8.4	0	0	0	0-5	
	12-22	45-55	30-45	---	7.4-8.4	0	0	0.0-2.0	1-12	
	22-36	---	---	---	---	---	---	---	---	
	36-60	2-10	0.0-5.0	---	7.9-9.0	0-5	0	0.0-8.0	13-30	
Zevadez-----	0-9	10-20	10-20	---	6.6-7.8	0	0	0	0	
	9-20	20-35	10-30	---	7.4-8.4	0-4	0	0	1-12	
	20-60	10-20	5.0-15	---	7.4-8.4	0-4	0	0.0-2.0	0	
Enko-----	0-6	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	0-5	
	6-12	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	1-12	
	12-28	10-18	10-25	---	7.4-9.0	0-5	0	0.0-8.0	5-12	
	28-37	10-18	10-25	---	7.4-9.0	0-15	0	4.0-16.0	5-12	
	37-60	10-18	10-25	---	7.9-9.6	0-5	0	4.0-16.0	13-30	
1175: Hunnton-----	0-6	12-18	15-25	---	6.6-8.4	0	0	0.0-4.0	0-5	
	6-12	20-30	20-30	---	6.6-8.4	0	0	0.0-4.0	0-12	
	12-22	45-55	30-45	---	6.6-8.4	0	0	0.0-4.0	1-12	
	22-36	---	---	---	---	---	---	---	---	
	36-60	---	---	---	---	---	---	---	---	
Goosel-----	0-13	18-26	10-25	---	6.6-7.8	0	0	0.0-4.0	0-5	
	13-21	35-60	20-50	---	7.4-8.4	0	0	0.0-4.0	0-5	
	21-25	12-25	10-20	---	7.9-9.0	1-5	0	0.0-4.0	0-12	
	25-26	---	---	---	---	---	---	---	---	
	26-30	---	---	---	---	---	---	---	---	
Connel-----	0-6	12-18	10-25	---	6.6-8.4	0	0	0	0-5	
	6-20	12-18	10-25	---	7.4-8.4	0-5	0	0.0-2.0	1-12	
	20-60	2-8	1.0-10	---	7.9-9.6	0-10	0-2	0.0-2.0	13-30	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
1176:									
Hunnton-----	0-6	20-27	14-26	---	6.6-8.4	0	0	0	0-5
	6-22	45-55	28-46	---	6.6-8.4	0	0	0	1-12
	22-36	---	---	---	---	---	---	---	---
	36-60	---	---	---	---	---	---	---	---
Hunnton-----	0-6	12-18	15-25	---	6.6-8.4	0	0	0.0-4.0	0-5
	6-12	20-30	20-30	---	6.6-8.4	0	0	0.0-4.0	0-12
	12-22	45-55	30-45	---	6.6-8.4	0	0	0.0-4.0	1-12
	22-36	---	---	---	---	---	---	---	---
	36-60	---	---	---	---	---	---	---	---
Dacker-----	0-7	15-20	10-20	---	6.6-7.8	0	0	0.0-4.0	0-5
	7-18	27-35	15-30	---	7.4-8.4	0-5	0	0.0-4.0	0-5
	18-22	20-25	10-20	---	7.9-9.0	10-20	0	4.0-8.0	1-12
	22-26	---	---	---	---	---	---	---	---
1180:									
Rocconda-----	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5
	1-5	35-50	20-40	---	7.4-8.4	0	0	0	0-5
	5-15	---	---	---	---	---	---	---	---
Hoot-----	0-6	10-18	5.0-15	---	7.9-8.4	0	0	0.0-2.0	1-12
	6-15	25-35	15-30	---	7.4-9.0	0-1	0	0.0-4.0	5-12
	15-19	---	---	---	---	---	---	---	---
1181:									
Rocconda-----	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5
	1-5	35-50	20-40	---	7.4-8.4	0	0	0	0-5
	5-15	---	---	---	---	---	---	---	---
Hoot-----	0-6	10-18	5.0-15	---	7.9-8.4	0	0	0.0-2.0	1-12
	6-15	25-35	15-30	---	7.4-9.0	0-1	0	0.0-4.0	5-12
	15-19	---	---	---	---	---	---	---	---
Soughe-----	0-4	10-20	10-25	---	6.6-8.4	0	0	0	0-5
	4-14	25-35	20-30	---	6.6-8.4	0	0	0.0-2.0	0-5
	14-18	---	---	---	---	---	---	---	---
1184:									
Rocconda-----	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5
	1-5	35-50	20-40	---	7.4-8.4	0	0	0	0-5
	5-15	---	---	---	---	---	---	---	---
Panlee-----	0-10	8-15	5.0-15	---	6.6-7.8	0	0	0	0
	10-42	8-15	5.0-10	---	7.4-8.4	0-5	0	0	0
	42-45	---	---	---	---	---	---	---	---
	45-55	---	---	---	---	---	---	---	---
1185:									
Rocconda-----	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5
	1-5	35-50	20-40	---	7.4-8.4	0	0	0	0-5
	5-15	---	---	---	---	---	---	---	---
Quomus-----	0-9	8-18	10-25	---	6.6-7.8	0	0	0	0
	9-24	10-18	15-30	---	7.4-7.8	0	0	0	0
	24-60	10-18	10-20	---	7.4-8.4	0	0	0	0-5

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay Pct	Cation- exchange capacity meq/100g	Effective cation- exchange capacity meq/100g	Soil reaction pH	Calcium carbonate Pct	Gypsum Pct	Salinity mmhos/cm	Sodium adsorption ratio
	In	Pct								
Atlow-----	0-4	14-24	11-24	---	7.4-8.4	0	0	0.0-2.0	0	
	4-14	27-35	16-28	---	7.9-9.0	0-5	0	0.0-2.0	0-5	
	14-18	---	---	---	---	---	---	---	---	
1186: Rocconda-----	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5	
	1-5	35-50	20-40	---	7.4-8.4	0-5	0	0	0-5	
	5-9	---	---	---	---	---	---	---	---	
Burrita-----	0-7	12-18	10-20	---	7.9-9.0	0	0	0	0-5	
	7-14	35-50	20-40	---	7.9-9.0	0	0	0.0-2.0	0-5	
	14-24	---	---	---	---	---	---	---	---	
Midraw-----	0-4	18-25	10-25	---	6.6-7.8	0	0	0	0-5	
	4-14	35-45	20-35	---	6.6-8.4	0	0	0.0-2.0	0-12	
	14-28	---	---	---	---	---	---	---	---	
	28-32	---	---	---	---	---	---	---	---	
1187: Rocconda-----	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5	
	1-5	35-50	20-40	---	7.4-8.4	0	0	0	0-5	
	5-15	---	---	---	---	---	---	---	---	
Panlee-----	0-10	8-15	5.0-15	---	6.6-7.8	0	0	0	0	
	10-42	8-15	5.0-10	---	7.4-8.4	0-5	0	0	0	
	42-45	---	---	---	---	---	---	---	---	
	45-55	---	---	---	---	---	---	---	---	
Hoot-----	0-6	10-18	5.0-15	---	7.9-8.4	0	0	0.0-2.0	1-12	
	6-15	25-35	15-30	---	7.4-9.0	0-1	0	0.0-4.0	5-12	
	15-19	---	---	---	---	---	---	---	---	
1188: Rocconda-----	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5	
	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5	
	1-5	35-50	20-40	---	7.4-8.4	0	0	0	0-5	
	1-5	35-50	20-40	---	7.4-8.4	0	0	0	0-5	
	5-15	---	---	---	---	---	---	---	---	
	5-15	---	---	---	---	---	---	---	---	
Rocconda-----	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5	
	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5	
	1-5	35-50	20-40	---	7.4-8.4	0	0	0	0-5	
	1-5	35-50	20-40	---	7.4-8.4	0	0	0	0-5	
	5-15	---	---	---	---	---	---	---	---	
	5-15	---	---	---	---	---	---	---	---	
1189: Rocconda-----	0-1	12-18	10-20	---	7.4-8.4	0	0	0	0-5	
	1-5	35-50	20-40	---	7.4-8.4	0	0	0	0-5	
	5-15	---	---	---	---	---	---	---	---	
Soughe-----	0-4	10-20	10-25	---	6.6-8.4	0	0	0	0-5	
	4-14	25-35	20-30	---	6.6-8.4	0	0	0.0-2.0	0-5	
	14-18	---	---	---	---	---	---	---	---	
1192: Enko-----	0-6	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	0-5	
	6-12	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	1-12	
	12-28	10-18	10-25	---	7.4-9.0	0-5	0	0.0-8.0	5-12	
	28-37	10-18	10-25	---	7.4-9.0	0-15	0	4.0-16.0	5-12	
	37-60	10-18	10-25	---	7.9-9.6	0-5	0	4.0-16.0	13-30	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm	
1194:									
Enko-----	0-6	10-18	10-30	---	6.6-8.4	0	0	0.0-4.0	0-5
	6-12	10-18	10-25	---	6.6-8.4	0	0	0.0-4.0	1-12
	12-28	10-18	10-25	---	7.4-9.0	0-5	0	0.0-8.0	5-12
	28-37	10-18	10-25	---	7.4-9.0	0-15	0	4.0-16.0	5-12
	37-60	10-18	10-25	---	7.9-9.6	0-5	0	4.0-16.0	13-30
1200:									
Erakatak-----	0-6	15-27	16-32	---	6.6-7.3	0	0	0	0
	6-11	35-50	30-44	---	6.6-7.3	0	0	0	0
	11-27	40-60	33-52	---	6.6-7.3	0	0	0	0
	27-31	---	---	---	---	---	---	---	---
Madeline-----	0-10	18-27	15-30	---	6.1-7.8	0	0	0	0
	10-14	35-60	25-50	---	6.1-7.8	0	0	0	0
	14-24	---	---	---	---	---	---	---	---
1201:									
Erakatak-----	0-6	15-27	16-32	---	6.6-7.3	0	0	0	0
	6-11	35-50	30-44	---	6.6-7.3	0	0	0	0
	11-27	40-60	33-50	---	6.6-7.3	0	0	0	0
	27-31	---	---	---	---	---	---	---	---
Ninemile-----	0-2	20-27	14-20	---	6.1-7.8	0	0	0	0
	2-14	40-60	38-52	---	6.6-7.8	0	0	0	0
	14-18	---	---	---	---	---	---	---	---
Harcany-----	0-4	5-10	15-25	---	6.6-7.3	0	0	0	0
	4-18	5-10	10-25	---	6.6-7.3	0	0	0	0
	18-72	10-15	12-30	---	6.6-7.3	0	0	0	0
1202:									
Erakatak-----	0-6	15-25	16-30	---	6.6-7.3	0	0	0	0
	6-11	35-40	30-38	---	6.6-7.3	0	0	0	0
	11-27	40-60	35-50	---	6.6-7.3	0	0	0	0
	27-31	---	---	---	---	---	---	---	---
Bullump-----	0-23	15-25	15-30	---	6.1-7.8	0	0	0	0
	23-52	25-35	10-25	---	6.1-7.8	0	0	0	0
	52-56	---	---	---	---	---	---	---	---
1210:									
Cresal-----	0-6	6-12	20-25	---	7.9-9.0	1-5	0	0.0-4.0	1-10
	6-21	8-15	20-30	---	7.9-9.0	3-15	0-1	4.0-16.0	10-25
	21-60	8-18	18-35	---	7.9-9.0	3-20	0-5	8.0-32.0	15-80
Playas-----	0-6	35-40	30-35	---	8.5-9.6	1-5	1-5	16.0-32.0	46-90
	6-60	35-70	30-60	---	8.5-9.0	1-10	1-10	16.0-32.0	46-90
1211:									
Cresal-----	0-6	6-12	20-25	---	7.9-9.0	1-5	0	0.0-4.0	1-10
	6-21	8-15	20-30	---	7.9-9.0	3-15	0-1	4.0-16.0	10-25
	21-60	8-18	18-35	---	7.9-9.0	3-20	0-5	8.0-32.0	15-80
1212:									
Cresal-----	0-6	0-3	0.0-5.0	---	7.9-9.0	0-1	0	0.0-4.0	1-5
	6-21	8-15	20-30	---	7.9-9.0	3-15	0-1	4.0-16.0	10-25
	21-60	8-18	18-35	---	7.9-9.0	3-20	0-5	8.0-32.0	15-80

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm		
Carstump-----	0-2	10-18	10-20	---	6.6-7.3	0	0	0	0	
	2-9	15-25	10-20	---	6.6-7.8	0	0	0	0	
	9-28	40-55	35-45	---	7.9-9.0	0	0	0.0-2.0	0	
	28-32	---	---	---	---	---	---	---	---	
1431:										
Hunnton-----	0-6	20-27	14-26	---	6.6-8.4	0	0	0	0-5	
	6-22	45-55	28-46	---	6.6-8.4	0	0	0	1-12	
	22-36	---	---	---	---	---	---	---	---	
	>36	---	---	---	---	---	---	---	---	
Rodock-----	0-2	8-15	15-25	---	6.6-7.8	0	0	0.0-4.0	0-2	
	2-20	15-25	15-35	---	6.6-8.4	0	0	0.0-4.0	0-5	
	20-27	8-15	5.0-15	---	7.4-9.0	0-3	0	0.0-4.0	0-5	
	27-60	0-5	2.0-5.0	---	7.4-9.0	0-3	0	0.0-8.0	1-12	
1432:										
Rodock-----	0-2	10-18	12-25	---	6.6-7.8	0	0	0.0-4.0	0	
	2-20	15-25	15-35	---	6.6-8.4	0	0	0.0-4.0	0	
	20-27	8-15	5.0-15	---	7.4-9.0	0-3	0	0.0-4.0	0-5	
	27-60	0-5	1.0-3.0	---	7.4-9.0	0-3	0	0.0-8.0	1-12	
Connel-----	0-6	10-15	10-20	---	6.6-8.4	0	0	0	0-5	
	6-20	12-18	10-30	---	7.4-9.6	0-5	0	0.0-2.0	1-12	
	20-60	2-8	2.0-10	---	7.9-9.6	1-10	0-2	0.0-2.0	13-30	
1433:										
Rodock-----	0-2	8-15	15-25	---	6.6-7.8	0	0	0.0-4.0	0-2	
	2-20	15-25	15-35	---	6.6-8.4	0	0	0.0-4.0	0-5	
	20-27	8-15	5.0-15	---	7.4-9.0	0-3	0	0.0-4.0	0-5	
	27-60	0-5	2.0-5.0	---	7.4-9.0	0-3	0	0.0-8.0	1-12	
1436:										
Rodock-----	0-2	10-18	12-25	---	6.6-7.8	0	0	0.0-4.0	0	
	2-20	15-25	15-35	---	6.6-8.4	0	0	0.0-4.0	0	
	20-27	8-15	5.0-15	---	7.4-9.0	0-3	0	0.0-4.0	0-5	
	27-60	0-5	1.0-3.0	---	7.4-9.0	0-3	0	0.0-8.0	1-12	
1437:										
Rodock-----	0-2	8-15	15-25	---	7.4-7.8	0	0	0.0-4.0	0-5	
	2-20	15-25	15-30	---	6.6-8.4	0	0	4.0-8.0	0-5	
	20-27	8-15	5.0-15	---	7.4-9.0	0-3	0	0.0-8.0	0-5	
	27-60	0-5	2.0-5.0	---	7.4-9.0	0-3	0	0.0-8.0	5-12	
1450:										
Wiskan-----	0-11	10-20	10-20	---	6.6-8.4	0	0	0.0-2.0	0	
	11-26	25-35	15-30	---	7.4-8.4	0-5	0	0.0-2.0	0	
	26-30	---	---	---	---	---	---	---	---	
Climine-----	0-8	15-20	15-25	---	6.6-7.8	0	0	0	0	
	8-18	18-27	10-20	---	6.6-7.8	0	0	0	0	
	18-41	18-27	10-20	---	6.6-7.8	0	0	0	0	
	41-60	18-35	10-30	---	6.6-7.8	0	0	0	0	

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct								
1465:										
Cleavage-----	0-7	15-25	10-25	---	6.6-7.8	0	0	0	0	0
	7-16	20-35	15-30	---	6.6-7.8	0	0	0	0	0
	16-20	---	---	---	---	---	---	---	---	---
Ninemile-----	0-2	10-20	15-25	---	6.1-8.4	0	0	0	0	0
	2-14	40-60	45-75	---	6.6-8.4	0	0	0	0	0
	14-18	---	---	---	---	---	---	---	---	---
Tusel-----	0-22	10-20	10-25	---	6.1-7.3	0	0	0	0	0
	22-46	25-35	15-35	---	6.1-7.3	0	0	0	0	0
	46-50	---	---	---	---	---	---	---	---	---
1466:										
Ninemile-----	0-2	20-27	14-20	---	6.1-7.8	0	0	0	0	0
	2-14	40-60	38-52	---	6.6-7.8	0	0	0	0	0
	14-18	---	---	---	---	---	---	---	---	---
Bullump-----	0-13	15-25	15-30	---	6.1-7.8	0	0	0	0	0
	13-23	15-25	10-20	---	6.1-7.8	0	0	0	0	0
	23-52	25-35	15-30	---	6.1-7.8	0	0	0	0	0
	52-56	---	---	---	---	---	---	---	---	---
Tusel-----	0-22	10-20	10-25	---	6.1-7.3	0	0	0	0	0
	22-46	25-35	15-35	---	6.1-7.3	0	0	0	0	0
	46-50	---	---	---	---	---	---	---	---	---
1467:										
Ninemile-----	0-2	15-25	20-28	---	6.1-7.3	0	0	0	0	0
	2-14	40-60	38-54	---	6.6-7.8	0	0	0	0	0
	14-24	---	---	---	---	---	---	---	---	---
Udelope-----	0-2	7-18	10-25	---	5.6-7.3	0	0	0	0	0
	2-10	8-18	10-25	---	5.6-7.3	0	0	0	0	0
	10-18	8-18	10-25	---	5.6-7.3	0	0	0	0	0
	18-22	---	---	---	---	---	---	---	---	---
Tusel-----	0-22	10-20	10-25	---	6.1-7.3	0	0	0	0	0
	22-46	25-35	15-35	---	6.1-7.3	0	0	0	0	0
	46-50	---	---	---	---	---	---	---	---	---
1468:										
Ninemile-----	0-2	15-25	20-28	---	6.1-7.3	0	0	0	0	0
	2-14	40-60	38-54	---	6.6-7.8	0	0	0	0	0
	14-24	---	---	---	---	---	---	---	---	---
Softscrabble----	0-8	10-20	10-20	---	6.1-7.3	0	0	0	0	0
	8-60	27-35	15-30	---	6.1-7.3	0	0	0	0	0
Ninemile-----	0-2	20-27	14-20	---	6.1-7.8	0	0	0	0	0
	2-14	40-60	38-52	---	6.6-7.8	0	0	0	0	0
	14-18	---	---	---	---	---	---	---	---	---
1469:										
Ninemile-----	0-2	15-25	20-28	---	6.1-7.3	0	0	0	0	0
	2-14	40-60	38-54	---	6.6-7.8	0	0	0	0	0
	14-24	---	---	---	---	---	---	---	---	---
Softscrabble----	0-8	10-20	10-20	---	6.1-7.3	0	0	0	0	0
	8-60	27-35	15-30	---	6.1-7.3	0	0	0	0	0

TABLE 14.--CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth		Clay	Cation- exchange capacity	Effective cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	Pct	meq/100g	meq/100g	pH	Pct	Pct	mmhos/cm		
1480: Tusel-----	0-22 22-46 46-50	10-20 25-35 ---	10-25 15-35 ---	---	6.1-7.3 6.1-7.3 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---	
1481: Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	10-25 15-30 ---	---	6.6-7.8 6.6-7.8 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---	
Tusel-----	0-22 22-46 46-50	10-20 25-35 ---	10-25 15-35 ---	---	6.1-7.3 6.1-7.3 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---	
1482: Tusel-----	0-22 22-46 46-50	10-20 25-35 ---	10-25 15-35 ---	---	6.1-7.3 6.1-7.3 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---	
Layview-----	0-8 8-14 14-18	14-20 22-35 ---	10-20 15-25 ---	---	6.6-7.8 6.6-7.8 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---	
1483: Tusel-----	0-22 22-46 46-50	10-20 25-35 ---	10-25 15-35 ---	---	6.1-7.3 6.1-7.3 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---	
Hackwood-----	0-32 32-60	18-27 18-27	12-35 12-30	---	6.1-7.3 6.1-7.3	0 0	0 0	0 0	0 0	
Spinlin-----	0-6 6-36 36-46	18-25 45-60 ---	10-25 30-50 ---	---	6.6-7.3 6.6-8.4 ---	0 0-5 ---	0 0 ---	0 0.0-2.0 ---	0 0 ---	
1484: Tusel-----	0-22 22-46 46-50	10-20 25-35 ---	10-25 15-35 ---	---	6.1-7.3 6.1-7.3 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---	
Ninemile-----	0-2 2-14 14-18	20-27 40-60 ---	14-20 38-52 ---	---	6.1-7.8 6.1-7.8 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---	
Cleavage-----	0-7 7-16 16-20	15-25 20-35 ---	10-25 15-30 ---	---	6.6-7.8 6.6-7.8 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---	
1500: Eaglerock-----	0-5 5-23 23-27	10-18 18-27 ---	15-25 15-30 ---	---	6.1-7.3 6.1-7.3 ---	0 0 ---	0 0 ---	0 0 ---	0 0 ---	
Acrelane-----	0-4 4-10 10-14	8-15 18-30 ---	10-25 15-25 ---	---	5.6-7.3 6.6-7.8 ---	0 0 ---	0 0 ---	0 0.0-2.0 ---	0 0 ---	

TABLE 15.--WATER FEATURES

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
100: Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Alyan-----	C	None	---	---	>6.0	---	---	---	---
101: Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Alyan-----	C	None	---	---	>6.0	---	---	---	---
102: Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Tusk-----	B	None	---	---	>6.0	---	---	---	---
106: Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Alyan-----	C	None	---	---	>6.0	---	---	---	---
107: Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Tusk-----	B	None	---	---	>6.0	---	---	---	---
108: Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Alyan-----	C	None	---	---	>6.0	---	---	---	---
110: Adelaide-----	D	None	---	---	>6.0	---	---	---	---
120: Bregar-----	D	None	---	---	>6.0	---	---	---	---
Tusk-----	B	None	---	---	>6.0	---	---	---	---
Bregar-----	D	None	---	---	>6.0	---	---	---	---
122: Bregar-----	D	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
Cleavage-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
131: Benin-----	D	None	---	---	>6.0	---	---	---	---
133: Benin-----	D	None	---	---	>6.0	---	---	---	---
141: Beoska-----	B	None	---	---	>6.0	---	---	---	---
Bluewing-----	A	None	---	---	>6.0	---	---	---	---
143: Beoska-----	B	None	---	---	>6.0	---	---	---	---
Broyles-----	B	None	---	---	>6.0	---	---	---	---
144: Beoska-----	B	None	---	---	>6.0	---	---	---	---
Dun Glen-----	B	Rare	---	---	>6.0	---	---	---	---
145: Beoska-----	B	None	---	---	>6.0	---	---	---	---
Beoska-----	B	None	---	---	>6.0	---	---	---	---
Weso-----	B	None	---	---	>6.0	---	---	---	---
151: Blackhawk-----	D	None	---	---	>6.0	---	---	---	---
152: Blackhawk-----	D	None	---	---	>6.0	---	---	---	---
154: Blackhawk-----	D	None	---	---	>6.0	---	---	---	---
Golconda-----	C	None	---	---	>6.0	---	---	---	---
Orovada-----	B	Rare	---	---	>6.0	---	---	---	---
155: Blackhawk-----	D	None	---	---	>6.0	---	---	---	---
156: Blackhawk-----	D	None	---	---	>6.0	---	---	---	---
Clurde-----	B	None	---	---	>6.0	---	---	---	---
157: Blackhawk-----	D	None	---	---	>6.0	---	---	---	---
Broyles-----	B	None	---	---	>6.0	---	---	---	---
158: Blackhawk-----	D	None	---	---	>6.0	---	---	---	---
Trocken-----	B	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydrologic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
160: Bliss-----	C	None	---	---	>6.0	---	---	---	---
161: Bliss-----	C	None	---	---	>6.0	---	---	---	---
Chiara-----	D	None	---	---	>6.0	---	---	---	---
163: Bliss-----	C	None	---	---	>6.0	---	---	---	---
Shabliss-----	D	None	---	---	>6.0	---	---	---	---
165: Bliss-----	C	None	---	---	>6.0	---	---	---	---
Dugchip-----	C	None	---	---	>6.0	---	---	---	---
Orovada-----	B	Rare	---	---	>6.0	---	---	---	---
166: Bliss-----	C	None	---	---	>6.0	---	---	---	---
Orovada-----	B	Rare	---	---	>6.0	---	---	---	---
Shabliss-----	D	None	---	---	>6.0	---	---	---	---
167: Bliss-----	C	None	---	---	>6.0	---	---	---	---
Blackhawk-----	D	None	---	---	>6.0	---	---	---	---
Adelaide-----	D	None	---	---	>6.0	---	---	---	---
169: Bliss-----	C	None	---	---	>6.0	---	---	---	---
Orovada-----	B	None	---	---	>6.0	---	---	---	---
171: Bubus-----	B	None	---	---	>6.0	---	---	---	---
174: Bubus-----	B	None	---	---	>6.0	---	---	---	---
Needle Peak-----	C	Rare	---	---	4.0-5.0	Apparent	Jan-Jun	---	---
178: Bubus-----	B	None	---	---	>6.0	---	---	---	---
Preble-----	D	None	---	---	3.0-5.0	Apparent	Feb-Jun	---	---
184: Chiara-----	D	None	---	---	>6.0	---	---	---	---
McConnel-----	B	None	---	---	>6.0	---	---	---	---
185: Chiara-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
185 (con.): Dacker-----	C	None	---	---	>6.0	---	---	---	---
McConnel-----	B	Rare	---	---	>6.0	---	---	---	---
186: Chiara-----	D	None	---	---	>6.0	---	---	---	---
Hunnton-----	C	None	---	---	>6.0	---	---	---	---
187: Chiara-----	D	None	---	---	>6.0	---	---	---	---
Boger-----	D	None	---	---	>6.0	---	---	---	---
Chiara-----	D	None	---	---	>6.0	---	---	---	---
188: Chiara-----	D	None	---	---	>6.0	---	---	---	---
Chiara-----	D	None	---	---	>6.0	---	---	---	---
190: Beeox-----	D	None	---	---	>6.0	---	---	---	---
Oxcorel-----	D	None	---	---	>6.0	---	---	---	---
191: Beeox-----	D	None	---	---	>6.0	---	---	---	---
Connel-----	B	Rare	---	---	>6.0	---	---	---	---
192: Beeox-----	D	None	---	---	>6.0	---	---	---	---
Bliss-----	C	None	---	---	>6.0	---	---	---	---
200: Davey-----	B	None	---	---	>6.0	---	---	---	---
201: Davey-----	B	None	---	---	>6.0	---	---	---	---
202: Davey-----	B	None	---	---	>6.0	---	---	---	---
203: Davey-----	B	None	---	---	>6.0	---	---	---	---
Goldrun-----	A	None	---	---	>6.0	---	---	---	---
204: Davey-----	B	None	---	---	>6.0	---	---	---	---
Blackhawk-----	D	None	---	---	>6.0	---	---	---	---
205: Davey-----	B	None	---	---	>6.0	---	---	---	---
Hawsley-----	A	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
206: Davey-----	B	None	---	---	>6.0	---	---	---	---
Broyles-----	B	None	---	---	>6.0	---	---	---	---
Dun Glen-----	B	Rare	---	---	>6.0	---	---	---	---
207: Davey-----	B	None	---	---	>6.0	---	---	---	---
Pumper-----	B	None	---	---	>6.0	---	---	---	---
208: Davey-----	B	None	---	---	>6.0	---	---	---	---
210: Flue-----	C	None	---	---	>6.0	---	---	---	---
Connel-----	B	None	---	---	>6.0	---	---	---	---
211: Flue-----	C	None	---	---	>6.0	---	---	---	---
Golconda-----	C	None	---	---	>6.0	---	---	---	---
Snapp-----	C	None	---	---	>6.0	---	---	---	---
212: Flue-----	C	None	---	---	>6.0	---	---	---	---
Orovada-----	B	None	---	---	>6.0	---	---	---	---
213: Flue-----	C	None	---	---	>6.0	---	---	---	---
Puett-----	D	None	---	---	>6.0	---	---	---	---
215: Flue-----	D	None	---	---	>6.0	---	---	---	---
Snapp-----	C	None	---	---	>6.0	---	---	---	---
Snapp-----	C	None	---	---	>6.0	---	---	---	---
216: Flue-----	C	None	---	---	>6.0	---	---	---	---
217: Flue-----	C	None	---	---	>6.0	---	---	---	---
218: Flue-----	D	None	---	---	>6.0	---	---	---	---
Snapp-----	C	None	---	---	>6.0	---	---	---	---
Rodock-----	B	Rare	---	---	>6.0	---	---	---	---
222: Bloor-----	C	None	---	---	5.0-6.0	Apparent	Jan-May	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
231: Dun Glen-----	B	Rare	---	---	>6.0	---	---	---	---
233: Dun Glen-----	B	Rare	---	---	>6.0	---	---	---	---
241: Sojur-----	D	None	---	---	>6.0	---	---	---	---
250: Connel-----	B	None	---	---	>6.0	---	---	---	---
Davey-----	B	None	---	---	>6.0	---	---	---	---
Goldrun-----	A	None	---	---	>6.0	---	---	---	---
251: Connel-----	B	None	---	---	>6.0	---	---	---	---
252: Connel-----	B	None	---	---	>6.0	---	---	---	---
253: Connel-----	B	None	---	---	>6.0	---	---	---	---
McConnel-----	A	Occasional	Brief	Mar-Jun	>6.0	---	---	---	---
254: Connel-----	B	None	---	---	>6.0	---	---	---	---
Zevadez-----	C	None	---	---	>6.0	---	---	---	---
255: Connel-----	B	Rare	---	---	>6.0	---	---	---	---
McConnel-----	B	Rare	---	---	>6.0	---	---	---	---
257: Connel-----	B	None	---	---	>6.0	---	---	---	---
258: Connel-----	B	None	---	---	>6.0	---	---	---	---
262: Golconda-----	C	None	---	---	>6.0	---	---	---	---
Snapp-----	C	None	---	---	>6.0	---	---	---	---
263: Golconda-----	C	None	---	---	>6.0	---	---	---	---
Bliss-----	C	None	---	---	>6.0	---	---	---	---
Connel-----	B	Rare	---	---	>6.0	---	---	---	---
270: Goldrun-----	A	None	---	---	>6.0	---	---	---	---
271: Goldrun-----	A	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
272: Goldrun-----	A	None	---	---	>6.0	---	---	---	---
274: Goldrun-----	A	None	---	---	>6.0	---	---	---	---
Benin-----	D	None	---	---	>6.0	---	---	---	---
275: Goldrun-----	A	None	---	---	>6.0	---	---	---	---
Preble-----	D	None	---	---	3.0-5.0	Apparent	Feb-Jun	---	---
281: Golsum-----	C	None	---	---	>6.0	---	---	---	---
Spinlin-----	C	None	---	---	>6.0	---	---	---	---
Harcany-----	B	None	---	---	>6.0	---	---	---	---
290: Havingdon-----	C	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
292: Havingdon-----	C	None	---	---	>6.0	---	---	---	---
Gowjai-----	B	None	---	---	>6.0	---	---	---	---
Walti-----	D	None	---	---	>6.0	---	---	---	---
302: Essal-----	B	None	---	---	>6.0	---	---	---	---
Playas-----	D	Occasional	---	---	-1.0-1.0	Apparent	Feb-Sep	Long	1.0
Isolde-----	A	None	---	---	>6.0	---	---	---	---
305: Essal-----	B	None	---	---	>6.0	---	---	---	---
Isolde-----	A	None	---	---	>6.0	---	---	---	---
Hawsley-----	A	None	---	---	>6.0	---	---	---	---
307: Essal-----	B	None	---	---	>6.0	---	---	---	---
Tresed-----	C	None	---	---	>6.0	---	---	---	---
Isolde-----	A	None	---	---	>6.0	---	---	---	---
311: Harcany-----	B	None	---	---	>6.0	---	---	---	---
Croesus-----	C	None	---	---	>6.0	---	---	---	---
Hackwood-----	B	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
312: Harcany-----	B	None	---	---	>6.0	---	---	---	---
Hackwood-----	B	None	---	---	>6.0	---	---	---	---
Cleavage-----	D	None	---	---	>6.0	---	---	---	---
321: Humboldt-----	D	Occasional	Long	Feb-Jun	0.5-2.0	Apparent	Dec-Jul	---	---
322: Humboldt-----	D	Occasional	Long	Feb-Jun	0.5-2.0	Apparent	Dec-Jun	---	---
325: Humboldt-----	D	Occasional	Long	Feb-Jun	0.5-2.0	Apparent	Dec-Jul	---	---
Wendane-----	C	Rare	---	---	2.5-4.0	Apparent	Feb-Jul	---	---
330: McConnel-----	B	None	---	---	>6.0	---	---	---	---
331: McConnel-----	B	None	---	---	>6.0	---	---	---	---
333: McConnel-----	B	None	---	---	>6.0	---	---	---	---
Shabliss-----	D	None	---	---	>6.0	---	---	---	---
335: McConnel-----	B	None	---	---	>6.0	---	---	---	---
338: McConnel-----	B	None	---	---	>6.0	---	---	---	---
Pumper-----	B	None	---	---	>6.0	---	---	---	---
Whirlo-----	B	None	---	---	>6.0	---	---	---	---
340: Boger-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
342: Boger-----	D	None	---	---	>6.0	---	---	---	---
Goosel-----	C	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
343: Boger-----	D	None	---	---	>6.0	---	---	---	---
351: Goldrun-----	A	None	---	---	>6.0	---	---	---	---
Prideen-----	C	None	---	---	2.0-3.0	Apparent	Dec-Jul	---	---
Playas-----	D	Occasional	---	---	-1.0-1.0	Apparent	Feb-Sep	Long	1.0

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
352: Goldrun-----	A	None	---	---	>6.0	---	---	---	---
Kleck-----	C	None	---	---	>6.0	---	---	---	---
Davey-----	B	None	---	---	>6.0	---	---	---	---
360: Needle Peak----	C	Rare	---	---	4.0-5.0	Apparent	Jan-Jun	---	---
363: Needle Peak----	C	Rare	---	---	4.0-5.0	Apparent	Jan-Jun	---	---
Batan-----	B	None	---	---	>6.0	---	---	---	---
Goldrun-----	A	None	---	---	>6.0	---	---	---	---
370: Wieland-----	C	None	---	---	>6.0	---	---	---	---
Wieland-----	C	None	---	---	>6.0	---	---	---	---
380: Bullump-----	B	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
381: Bullump-----	B	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
Hackwood-----	B	None	---	---	>6.0	---	---	---	---
391: Aycab-----	C	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
403: Orovada-----	B	None	---	---	>6.0	---	---	---	---
406: Orovada-----	B	None	---	---	>6.0	---	---	---	---
407: Orovada-----	B	None	---	---	>6.0	---	---	---	---
409: Orovada-----	B	None	---	---	>6.0	---	---	---	---
Goldrun-----	A	None	---	---	>6.0	---	---	---	---
410: Orovada-----	B	None	---	---	>6.0	---	---	---	---
Bliss-----	C	None	---	---	>6.0	---	---	---	---
411: Orovada-----	B	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
411 (con.): Dugchip-----	C	None	---	---	>6.0	---	---	---	---
417: Orovada-----	B	None	---	---	>6.0	---	---	---	---
Connel-----	B	None	---	---	>6.0	---	---	---	---
420: Bubus-----	B	None	---	---	>6.0	---	---	---	---
431: Preble-----	D	None	---	---	3.0-5.0	Apparent	Feb-Jun	---	---
432: Preble-----	D	None	---	---	3.0-5.0	Apparent	Feb-Jun	---	---
Goldrun-----	A	None	---	---	>6.0	---	---	---	---
Playas-----	D	Occasional	---	---	-1.0-1.0	Apparent	Feb-Sep	Long	1.0
435: Preble-----	D	None	---	---	3.0-5.0	Apparent	Feb-Jun	---	---
436: Preble-----	D	None	---	---	3.0-5.0	Apparent	Feb-Jun	---	---
Valmy-----	B	None	---	---	>6.0	---	---	---	---
Valmy-----	B	Occasional	Very brief	Feb-Jul	>6.0	---	---	---	---
437: Preble-----	D	None	---	---	3.0-5.0	Apparent	Feb-Jun	---	---
Davey-----	B	None	---	---	>6.0	---	---	---	---
438: Preble-----	D	None	---	---	3.0-5.0	Apparent	Feb-Jun	---	---
Bubus-----	B	None	---	---	>6.0	---	---	---	---
440: Prideen-----	C	None	---	---	2.0-3.0	Apparent	Dec-Jul	---	---
441: Prideen-----	C	Rare	---	---	2.0-3.0	Apparent	Dec-Jul	---	---
452: Kingsriver-----	D	Occasional	Long	Mar-Jun	1.0-3.0	Apparent	Feb-Jun	---	---
453: Kingsriver-----	B	Occasional	Long	Mar-Jun	3.0-5.0	Apparent	Feb-Jun	---	---
460: Rad-----	B	None	---	---	>6.0	---	---	---	---
461: Rad-----	B	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydrologic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
462: Rad-----	B	None	---	---	>6.0	---	---	---	---
470: Raglan-----	B	None	---	---	>6.0	---	---	---	---
471: Raglan-----	B	None	---	---	>6.0	---	---	---	---
474: Raglan-----	B	None	---	---	>6.0	---	---	---	---
Kleck-----	C	None	---	---	>6.0	---	---	---	---
480: Rebel-----	B	None	---	---	>6.0	---	---	---	---
487: Rebel-----	B	None	---	---	>6.0	---	---	---	---
490: Rose Creek-----	C	Occasional	Long	Feb-Jun	1.5-3.0	Apparent	Dec-Jul	---	---
491: Rose Creek-----	C	Rare	---	---	4.0-6.0	Apparent	Feb-May	---	---
492: Rose Creek-----	C	Frequent	Long	Feb-Jun	1.5-3.0	Apparent	Dec-Jul	---	---
501: Enko-----	B	None	---	---	>6.0	---	---	---	---
502: Enko-----	B	None	---	---	>6.0	---	---	---	---
Goldrun-----	A	None	---	---	>6.0	---	---	---	---
503: Enko-----	C	None	---	---	>6.0	---	---	---	---
504: Enko-----	C	None	---	---	>6.0	---	---	---	---
Shabliss-----	D	None	---	---	>6.0	---	---	---	---
505: Enko-----	C	None	---	---	>6.0	---	---	---	---
507: Enko-----	C	None	---	---	>6.0	---	---	---	---
Shabliss-----	D	None	---	---	>6.0	---	---	---	---
Orovada-----	B	None	---	---	>6.0	---	---	---	---
511: Mazuma-----	B	None	---	---	>6.0	---	---	---	---
Trocken-----	B	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
520: Lunder-----	D	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
522: Lunder-----	D	None	---	---	>6.0	---	---	---	---
Hunnton-----	C	None	---	---	>6.0	---	---	---	---
530: Shabliss-----	D	None	---	---	>6.0	---	---	---	---
532: Shabliss-----	D	None	---	---	>6.0	---	---	---	---
Enko-----	C	None	---	---	>6.0	---	---	---	---
Valmy-----	B	None	---	---	>6.0	---	---	---	---
533: Shabliss-----	D	None	---	---	>6.0	---	---	---	---
Connel-----	B	None	---	---	>6.0	---	---	---	---
534: Shabliss-----	D	None	---	---	>6.0	---	---	---	---
Puett-----	D	None	---	---	>6.0	---	---	---	---
536: Shabliss-----	D	None	---	---	>6.0	---	---	---	---
Enko-----	C	None	---	---	>6.0	---	---	---	---
Dugchip-----	C	None	---	---	>6.0	---	---	---	---
537: Shabliss-----	D	None	---	---	>6.0	---	---	---	---
Bliss-----	C	None	---	---	>6.0	---	---	---	---
Genaw-----	D	None	---	---	>6.0	---	---	---	---
543: Pumper-----	B	None	---	---	>6.0	---	---	---	---
Connel-----	B	None	---	---	>6.0	---	---	---	---
544: Pumper-----	B	None	---	---	>6.0	---	---	---	---
Weso-----	B	None	---	---	>6.0	---	---	---	---
545: Pumper-----	B	None	---	---	>6.0	---	---	---	---
Dun Glen-----	B	Rare	---	---	>6.0	---	---	---	---
Davey-----	B	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
551: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Carstump-----	C	None	---	---	>6.0	---	---	---	---
552: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
553: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Tusk-----	B	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
555: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
Alyan-----	C	None	---	---	>6.0	---	---	---	---
557: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
558: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
559: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
561: Sonoma-----	C	Occasional	Long	Feb-Jun	1.5-3.0	Apparent	Feb-Jun	---	---
562: Sonoma-----	C	Occasional	Long	Dec-Jun	1.5-3.0	Apparent	Feb-Jun	---	---
563: Sonoma-----	C	Occasional	Long	Feb-Jun	1.5-3.0	Apparent	Feb-Jun	---	---
564: Sonoma-----	C	Occasional	Long	Mar-Jun	3.5-5.0	Apparent	Mar-Jun	---	---
566: Sonoma-----	C	Occasional	Long	Feb-Jun	1.5-3.0	Apparent	Feb-Jun	---	---
Paranat-----	C	Occasional	Long	Dec-May	1.5-3.5	Apparent	Nov-Jul	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
567: Sonoma-----	C	Frequent	Long	Dec-Jun	1.5-3.0	Apparent	Feb-Jun	---	---
573: Spinlin-----	C	None	---	---	>6.0	---	---	---	---
Harcany-----	B	None	---	---	>6.0	---	---	---	---
Hackwood-----	B	None	---	---	>6.0	---	---	---	---
574: Spinlin-----	C	None	---	---	>6.0	---	---	---	---
Hackwood-----	B	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
580: Sumine-----	C	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Softscrabble---	C	None	---	---	>6.0	---	---	---	---
581: Sumine-----	C	None	---	---	>6.0	---	---	---	---
Gosumi-----	D	None	---	---	>6.0	---	---	---	---
Nomara-----	C	None	---	---	>6.0	---	---	---	---
582: Sumine-----	C	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
583: Sumine-----	C	None	---	---	>6.0	---	---	---	---
Gosumi-----	D	None	---	---	>6.0	---	---	---	---
Harcany-----	B	None	---	---	>6.0	---	---	---	---
584: Sumine-----	C	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
585: Sumine-----	C	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
Ninemile-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
586: Sumine-----	C	None	---	---	>6.0	---	---	---	---
Rubble Land----	A	None	---	---	>6.0	---	---	---	---
Reluctan-----	C	None	---	---	>6.0	---	---	---	---
587: Sumine-----	C	None	---	---	>6.0	---	---	---	---
Gosumi-----	D	None	---	---	>6.0	---	---	---	---
Harcany-----	B	None	---	---	>6.0	---	---	---	---
588: Sumine-----	C	None	---	---	>6.0	---	---	---	---
Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Rubble Land----	A	None	---	---	>6.0	---	---	---	---
589: Sumine-----	C	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Harcany-----	B	None	---	---	>6.0	---	---	---	---
590: Trunk-----	D	None	---	---	>6.0	---	---	---	---
Madeline-----	D	None	---	---	>6.0	---	---	---	---
592: Trunk-----	D	None	---	---	>6.0	---	---	---	---
Pocan-----	B	None	---	---	>6.0	---	---	---	---
593: Trunk-----	D	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Panlee-----	B	None	---	---	>6.0	---	---	---	---
594: Trunk-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
Quomus-----	B	None	---	---	>6.0	---	---	---	---
596: Trunk-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
597: Trunk-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
597 (con.): Burrita-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
600: Valmy-----	B	None	---	---	>6.0	---	---	---	---
603: Valmy-----	B	None	---	---	>6.0	---	---	---	---
Goldrun-----	A	None	---	---	>6.0	---	---	---	---
604: Valmy-----	B	None	---	---	>6.0	---	---	---	---
Bubus-----	B	None	---	---	>6.0	---	---	---	---
Needle Peak----	C	Rare	---	---	4.0-5.0	Apparent	Jan-Jun	---	---
606: Valmy-----	B	None	---	---	>6.0	---	---	---	---
611: Weso-----	B	None	---	---	>6.0	---	---	---	---
613: Weso-----	B	None	---	---	>6.0	---	---	---	---
Orovada-----	B	None	---	---	>6.0	---	---	---	---
Shabliss-----	D	None	---	---	>6.0	---	---	---	---
614: Weso-----	B	None	---	---	>6.0	---	---	---	---
615: Weso-----	B	None	---	---	>6.0	---	---	---	---
617: Weso-----	B	None	---	---	>6.0	---	---	---	---
618: Weso-----	B	None	---	---	>6.0	---	---	---	---
Kelk-----	C	Occasional	Long	Feb-Jun	>6.0	---	---	---	---
619: Weso-----	B	None	---	---	>6.0	---	---	---	---
Rebel-----	B	None	---	---	>6.0	---	---	---	---
620: Carstump-----	C	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
631: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Panlee-----	B	None	---	---	>6.0	---	---	---	---
633: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Midraw-----	D	None	---	---	>6.0	---	---	---	---
634: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
Zymans-----	C	None	---	---	>6.0	---	---	---	---
636: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Rubble Land----	A	None	---	---	>6.0	---	---	---	---
Clementine-----	B	Rare	---	---	>6.0	---	---	---	---
637: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Dewar-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
638: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
Panlee-----	B	None	---	---	>6.0	---	---	---	---
640: Clementine-----	B	Rare	---	---	>6.0	---	---	---	---
641: Clementine-----	B	Rare	---	---	>6.0	---	---	---	---
Paranat-----	C	Occasional	Long	Dec-Jun	1.5-3.5	Apparent	Nov-Jul	---	---
642: Clementine-----	C	Occasional	Long	Feb-Jul	2.0-3.0	Apparent	Feb-Jul	---	---
Rose Creek-----	B	Rare	---	---	4.0-6.0	Apparent	Mar-Jun	---	---
646: Clementine-----	C	Occasional	Long	Feb-Jul	2.0-3.0	Apparent	Feb-Jul	---	---
Paranat-----	C	Occasional	Long	Dec-Jun	1.5-3.5	Apparent	Nov-Jul	---	---
651: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
651 (con.): Atlow-----	D	None	---	---	>6.0	---	---	---	---
652: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Havingdon-----	C	None	---	---	>6.0	---	---	---	---
Reluctan-----	C	None	---	---	>6.0	---	---	---	---
653: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Havingdon-----	C	None	---	---	>6.0	---	---	---	---
654: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Panlee-----	B	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
655: Soughe-----	D	None	---	---	>6.0	---	---	---	---
Hoot-----	D	None	---	---	>6.0	---	---	---	---
657: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Snowmore-----	C	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
658: Burrita-----	D	None	---	---	>6.0	---	---	---	---
Panlee-----	B	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
660: Oxcorel-----	D	None	---	---	>6.0	---	---	---	---
Beoska-----	B	None	---	---	>6.0	---	---	---	---
Whirlo-----	B	None	---	---	>6.0	---	---	---	---
661: Oxcorel-----	D	None	---	---	>6.0	---	---	---	---
Orovada-----	B	None	---	---	>6.0	---	---	---	---
663: Oxcorel-----	D	None	---	---	>6.0	---	---	---	---
Weso-----	B	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
663 (con.): Beoska-----	B	None	---	---	>6.0	---	---	---	---
664: Oxcorel-----	D	None	---	---	>6.0	---	---	---	---
Golconda-----	C	None	---	---	>6.0	---	---	---	---
665: Oxcorel-----	D	None	---	---	>6.0	---	---	---	---
Snapp-----	C	None	---	---	>6.0	---	---	---	---
669: Oxcorel-----	D	None	---	---	>6.0	---	---	---	---
Dewar-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
670: Devada-----	D	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
Goosel-----	C	None	---	---	>6.0	---	---	---	---
671: Devada-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
673: Devada-----	D	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
676: Devada-----	D	None	---	---	>6.0	---	---	---	---
Snowmore-----	C	None	---	---	>6.0	---	---	---	---
Midraw-----	D	None	---	---	>6.0	---	---	---	---
677: Devada-----	D	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
678: Devada-----	D	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
Rubble Land-----	A	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
680: Soughe-----	D	None	---	---	>6.0	---	---	---	---
Trunk-----	D	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
690: Sodhouse-----	D	None	---	---	>6.0	---	---	---	---
Golconda-----	C	None	---	---	>6.0	---	---	---	---
691: Sodhouse-----	D	None	---	---	>6.0	---	---	---	---
Chiara-----	D	None	---	---	>6.0	---	---	---	---
700: Atlow-----	D	None	---	---	>6.0	---	---	---	---
Gowjai-----	B	None	---	---	>6.0	---	---	---	---
701: Atlow-----	D	None	---	---	>6.0	---	---	---	---
Wiskan-----	C	None	---	---	>6.0	---	---	---	---
704: Atlow-----	D	None	---	---	>6.0	---	---	---	---
Hoot-----	D	None	---	---	>6.0	---	---	---	---
Atlow-----	D	None	---	---	>6.0	---	---	---	---
710: Xipe-----	C	Occasional	Long	Mar-Jul	3.0-6.0	Apparent	Feb-Jul	---	---
720: Dewar-----	D	None	---	---	>6.0	---	---	---	---
Sodhouse-----	D	None	---	---	>6.0	---	---	---	---
721: Dewar-----	D	None	---	---	>6.0	---	---	---	---
Laped-----	D	None	---	---	>6.0	---	---	---	---
Orovada-----	B	None	---	---	>6.0	---	---	---	---
722: Dewar-----	D	None	---	---	>6.0	---	---	---	---
Flue-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
724: Dewar-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding					
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth	
					Ft					Ft
724 (con.): Hoot-----	D	None	---	---	>6.0	---	---	---	---	
726: Dewar-----	D	None	---	---	>6.0	---	---	---	---	
Dewar-----	D	None	---	---	>6.0	---	---	---	---	
727: Dewar-----	D	None	---	---	>6.0	---	---	---	---	
Midraw-----	D	None	---	---	>6.0	---	---	---	---	
Dewar-----	D	None	---	---	>6.0	---	---	---	---	
728: Dewar-----	D	None	---	---	>6.0	---	---	---	---	
Midraw-----	D	None	---	---	>6.0	---	---	---	---	
Devada-----	D	None	---	---	>6.0	---	---	---	---	
729: Dewar-----	D	None	---	---	>6.0	---	---	---	---	
Boger-----	D	None	---	---	>6.0	---	---	---	---	
732: Kelk-----	C	None	---	---	>6.0	---	---	---	---	
Kelk-----	C	Occasional	Long	Feb-Jun	>6.0	---	---	---	---	
733: Kelk-----	C	Occasional	Long	Feb-Jun	>6.0	---	---	---	---	
Enko-----	B	None	---	---	>6.0	---	---	---	---	
734: Kelk-----	C	Occasional	Long	Feb-Jun	>6.0	---	---	---	---	
736: Kelk-----	C	None	---	---	>6.0	---	---	---	---	
Kortty-----	B	None	---	---	>6.0	---	---	---	---	
740: Gowjai-----	B	None	---	---	>6.0	---	---	---	---	
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---	
Sumine-----	C	None	---	---	>6.0	---	---	---	---	
750: Snapp-----	C	None	---	---	>6.0	---	---	---	---	
Oxcorel-----	D	None	---	---	>6.0	---	---	---	---	
751: Snapp-----	C	None	---	---	>6.0	---	---	---	---	

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
751 (con.): Sodhouse-----	D	None	---	---	>6.0	---	---	---	---
752: Snapp-----	C	None	---	---	>6.0	---	---	---	---
Orovada-----	B	None	---	---	>6.0	---	---	---	---
753: Snapp-----	C	None	---	---	>6.0	---	---	---	---
Dugchip-----	C	None	---	---	>6.0	---	---	---	---
Connel-----	B	Rare	---	---	>6.0	---	---	---	---
754: Snapp-----	C	None	---	---	>6.0	---	---	---	---
Puett-----	D	None	---	---	>6.0	---	---	---	---
755: Snapp-----	C	None	---	---	>6.0	---	---	---	---
Connel-----	B	None	---	---	>6.0	---	---	---	---
756: Snapp-----	C	None	---	---	>6.0	---	---	---	---
McConnel-----	B	None	---	---	>6.0	---	---	---	---
Adelaide-----	D	None	---	---	>6.0	---	---	---	---
760: Piline-----	D	None	---	---	0.5-2.0	Perched	Jan-Jun	---	---
Piline-----	D	None	---	---	-1.0-2.0	Perched	Jan-Jul	Long	1.0
761: Piline-----	D	None	---	---	-1.0-2.0	Perched	Jan-Jul	Long	1.0
772: Broyles-----	B	None	---	---	>6.0	---	---	---	---
Orovada-----	B	None	---	---	>6.0	---	---	---	---
773: Broyles-----	B	None	---	---	>6.0	---	---	---	---
774: Broyles-----	B	None	---	---	>6.0	---	---	---	---
775: Broyles-----	B	None	---	---	>6.0	---	---	---	---
Bubus-----	B	None	---	---	>6.0	---	---	---	---
Goldrun-----	A	None	---	---	>6.0	---	---	---	---
780: Dacker-----	C	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding					
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth	
					Ft					Ft
780 (con.): Chiara-----	D	None	---	---	>6.0	---	---	---	---	
781: Dacker-----	C	None	---	---	>6.0	---	---	---	---	
Bilbo-----	C	None	---	---	>6.0	---	---	---	---	
782: Dacker-----	C	None	---	---	>6.0	---	---	---	---	
Devada-----	D	None	---	---	>6.0	---	---	---	---	
Snowmore-----	C	None	---	---	>6.0	---	---	---	---	
790: Rio King-----	B	Rare	---	---	5.0-6.0	Apparent	Feb-Jun	---	---	
791: Rio King-----	B	Rare	---	---	5.0-7.0	Apparent	Feb-Jun	---	---	
800: Udelope-----	B	None	---	---	>6.0	---	---	---	---	
Bregar-----	D	None	---	---	>6.0	---	---	---	---	
Rock Outcrop.										
801: Udelope-----	B	None	---	---	>6.0	---	---	---	---	
Hackwood-----	B	None	---	---	>6.0	---	---	---	---	
Tusel-----	B	None	---	---	>6.0	---	---	---	---	
810: Batan-----	B	None	---	---	>6.0	---	---	---	---	
Goldrun-----	A	None	---	---	>6.0	---	---	---	---	
811: Batan-----	B	None	---	---	>6.0	---	---	---	---	
Batan-----	B	None	---	---	>6.0	---	---	---	---	
813: Batan-----	B	None	---	---	>6.0	---	---	---	---	
815: Batan-----	B	None	---	---	>6.0	---	---	---	---	
Prideen-----	C	Rare	---	---	2.0-3.0	Apparent	Dec-Jul	---	---	
Wendane-----	C	Occasional	Long	Dec-Jun	2.5-4.0	Apparent	Feb-Jul	---	---	
818: Batan-----	B	None	---	---	>6.0	---	---	---	---	
Goldrun-----	A	None	---	---	>6.0	---	---	---	---	

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
818 (con.): Bubus-----	B	None	---	---	>6.0	---	---	---	---
823: Whirlo-----	B	None	---	---	>6.0	---	---	---	---
Orovada-----	B	None	---	---	>6.0	---	---	---	---
Snapp-----	C	None	---	---	>6.0	---	---	---	---
825: Whirlo-----	B	None	---	---	>6.0	---	---	---	---
Oxcorel-----	D	None	---	---	>6.0	---	---	---	---
Weso-----	B	None	---	---	>6.0	---	---	---	---
831: Boton-----	B	None	---	---	>6.0	---	---	---	---
Playas-----	D	Occasional	---	---	-1.0-1.0	Apparent	Feb-Sep	Long	1.0
833: Boton-----	B	None	---	---	>6.0	---	---	---	---
Isolde-----	A	None	---	---	>6.0	---	---	---	---
Boton-----	B	Rare	---	---	>6.0	---	---	---	---
834: Boton-----	B	None	---	---	>6.0	---	---	---	---
Davey-----	B	None	---	---	>6.0	---	---	---	---
840: Dugchip-----	C	None	---	---	>6.0	---	---	---	---
Flue-----	C	None	---	---	>6.0	---	---	---	---
Dewar-----	D	None	---	---	>6.0	---	---	---	---
842: Dugchip-----	C	None	---	---	>6.0	---	---	---	---
Kelk-----	C	Occasional	Long	Feb-Jun	>6.0	---	---	---	---
844: Dugchip-----	C	None	---	---	>6.0	---	---	---	---
Chiara-----	D	None	---	---	>6.0	---	---	---	---
845: Dugchip-----	C	None	---	---	>6.0	---	---	---	---
Needle Peak----	C	Rare	---	---	4.0-5.0	Apparent	Jan-Jun	---	---
860: Goosel-----	C	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
860 (con.): Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
861: Goosel-----	C	None	---	---	>6.0	---	---	---	---
862: Goosel-----	C	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
Goosel-----	C	None	---	---	>6.0	---	---	---	---
863: Goosel-----	C	None	---	---	>6.0	---	---	---	---
Midraw-----	D	None	---	---	>6.0	---	---	---	---
880: Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Sumine-----	C	None	---	---	>6.0	---	---	---	---
Harcany-----	B	None	---	---	>6.0	---	---	---	---
881: Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
Bregar-----	D	None	---	---	>6.0	---	---	---	---
882: Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
883: Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
884: Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
885: Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Reluctan-----	C	None	---	---	>6.0	---	---	---	---
886: Cleavage-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
886 (con.): Bullump-----	B	None	---	---	>6.0	---	---	---	---
891: Softscrabble----	C	None	---	---	>6.0	---	---	---	---
Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Harcany-----	B	None	---	---	>6.0	---	---	---	---
892: Softscrabble----	C	None	---	---	>6.0	---	---	---	---
Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
900: Roca-----	D	None	---	---	>6.0	---	---	---	---
Bregar-----	D	None	---	---	>6.0	---	---	---	---
Linrose-----	C	None	---	---	>6.0	---	---	---	---
901: Roca-----	D	None	---	---	>6.0	---	---	---	---
Reluctan-----	C	None	---	---	>6.0	---	---	---	---
902: Roca-----	D	None	---	---	>6.0	---	---	---	---
Alyan-----	C	None	---	---	>6.0	---	---	---	---
Quomus-----	B	None	---	---	>6.0	---	---	---	---
903: Roca-----	D	None	---	---	>6.0	---	---	---	---
Walti-----	D	None	---	---	>6.0	---	---	---	---
Reluctan-----	C	None	---	---	>6.0	---	---	---	---
907: Roca-----	D	None	---	---	>6.0	---	---	---	---
Climine-----	B	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
909: Roca-----	D	None	---	---	>6.0	---	---	---	---
Nomara-----	C	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
911: Barnard-----	C	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
911 (con.): Barnard-----	C	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
921: Walti-----	D	None	---	---	>6.0	---	---	---	---
Sumine-----	C	None	---	---	>6.0	---	---	---	---
Reluctan-----	C	None	---	---	>6.0	---	---	---	---
922: Walti-----	D	None	---	---	>6.0	---	---	---	---
Reluctan-----	C	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
923: Walti-----	D	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
924: Walti-----	D	None	---	---	>6.0	---	---	---	---
Tusk-----	B	None	---	---	>6.0	---	---	---	---
Alyan-----	C	None	---	---	>6.0	---	---	---	---
930: Tenabo-----	D	None	---	---	>6.0	---	---	---	---
Oxcorel-----	D	None	---	---	>6.0	---	---	---	---
940: Soughe-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
941: Soughe-----	D	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
942: Soughe-----	D	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
943: Soughe-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
943 (con.): Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
944: Soughe-----	D	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
946: Soughe-----	D	None	---	---	>6.0	---	---	---	---
Rubble Land-----	A	None	---	---	>6.0	---	---	---	---
947: Soughe-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
954: Puffer-----	D	None	---	---	>6.0	---	---	---	---
Xine-----	C	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
955: Puffer-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
960: Zevadez-----	C	None	---	---	>6.0	---	---	---	---
Wieland-----	C	None	---	---	>6.0	---	---	---	---
Kelk-----	C	None	---	---	>6.0	---	---	---	---
962: Zevadez-----	C	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
963: Zevadez-----	C	None	---	---	>6.0	---	---	---	---
McConnel-----	B	None	---	---	>6.0	---	---	---	---
964: Zevadez-----	C	None	---	---	>6.0	---	---	---	---
970: Gosumi-----	D	None	---	---	>6.0	---	---	---	---
Walti-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
980: Snowmore-----	C	None	---	---	>6.0	---	---	---	---
Snowmore-----	C	None	---	---	>6.0	---	---	---	---
981: Snowmore-----	C	None	---	---	>6.0	---	---	---	---
Zevadez-----	C	None	---	---	>6.0	---	---	---	---
Snowmore-----	C	None	---	---	>6.0	---	---	---	---
983: Snowmore-----	C	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
984: Snowmore-----	C	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
990: Playas-----	D	Occasional	---	---	-1.0-1.0	Apparent	Feb-Sep	Long	1.0
994: Dune Land-----	A	None	---	---	>6.0	---	---	---	---
995: Dune Land-----	A	None	---	---	>6.0	---	---	---	---
Goldrun-----	A	None	---	---	>6.0	---	---	---	---
Davey-----	B	None	---	---	>6.0	---	---	---	---
998: Dumps-----	A	None	---	---	>6.0	---	---	---	---
Pits-----	D	None	---	---	>6.0	---	---	---	---
999: Slickens-----	B	None	---	---	>6.0	---	---	---	---
1004: Soughe-----	D	None	---	---	>6.0	---	---	---	---
Davey-----	B	None	---	---	>6.0	---	---	---	---
1005: Soughe-----	D	None	---	---	>6.0	---	---	---	---
Flue-----	C	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
1007: Soughe-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1007 (con.): Puett-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
1010: Bartome-----	D	None	---	---	>6.0	---	---	---	---
Chiara-----	D	None	---	---	>6.0	---	---	---	---
1020: Wholan-----	B	Rare	---	---	>6.0	---	---	---	---
1023: Wholan-----	B	Rare	---	---	>6.0	---	---	---	---
Bliss-----	C	None	---	---	>6.0	---	---	---	---
Enko-----	C	None	---	---	>6.0	---	---	---	---
1025: Wholan-----	B	Rare	---	---	>6.0	---	---	---	---
1030: Bullump-----	B	None	---	---	>6.0	---	---	---	---
Westbutte-----	C	None	---	---	>6.0	---	---	---	---
Harcany-----	B	None	---	---	>6.0	---	---	---	---
1031: Bullump-----	B	None	---	---	>6.0	---	---	---	---
Sumine-----	C	None	---	---	>6.0	---	---	---	---
Cleavage-----	D	None	---	---	>6.0	---	---	---	---
1050: Argenta-----	C	None	---	---	3.0-3.5	Apparent	Feb-Jul	---	---
1051: Argenta-----	C	None	---	---	3.0-3.5	Apparent	Feb-Jul	---	---
Preble-----	D	None	---	---	3.0-5.0	Apparent	Feb-Jun	---	---
1052: Argenta-----	C	Rare	---	---	3.0-3.5	Apparent	Feb-Jul	---	---
Preble-----	D	None	---	---	3.0-5.0	Apparent	Feb-Jun	---	---
1055: Argenta-----	C	Rare	---	---	3.0-3.5	Apparent	Feb-Jul	---	---
1060: Paranat-----	C	Occasional	Brief	Mar-Jun	4.0-6.0	Apparent	Jan-Jun	---	---
1061: Paranat-----	C	Occasional	Long	Dec-Jun	1.5-3.5	Apparent	Nov-Jul	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
				Ft					Ft
1064: Paranat-----	C	Occasional	Long	Dec-Jun	1.5-3.5	Apparent	Nov-Jul	---	---
Paranat-----	C	Occasional	Long	Dec-May	1.5-3.5	Apparent	Nov-Jul	---	---
1066: Paranat-----	C	Occasional	Long	Dec-Jun	1.5-3.5	Apparent	Nov-Jul	---	---
1067: Paranat-----	C	Occasional	Long	Dec-May	1.5-3.5	Apparent	Nov-Jul	---	---
1072: Hoot-----	D	None	---	---	>6.0	---	---	---	---
Laped-----	D	None	---	---	>6.0	---	---	---	---
Rubble Land----	A	None	---	---	>6.0	---	---	---	---
1075: Hoot-----	D	None	---	---	>6.0	---	---	---	---
Panlee-----	B	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
1077: Hoot-----	D	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
Soughe-----	D	None	---	---	>6.0	---	---	---	---
1078: Hoot-----	D	None	---	---	>6.0	---	---	---	---
Genaw-----	D	None	---	---	>6.0	---	---	---	---
1090: Soolake-----	B	None	---	---	>6.0	---	---	---	---
Argenta-----	C	None	---	---	3.0-3.5	Apparent	Feb-Jul	---	---
1100: Wendane-----	C	Occasional	Long	Dec-Jun	2.5-4.0	Apparent	Feb-Jul	---	---
1101: Wendane-----	C	Rare	---	---	2.5-4.0	Apparent	Feb-Jul	---	---
1102: Wendane-----	C	Rare	---	---	2.5-4.0	Apparent	Feb-Jul	---	---
Wendane-----	C	Occasional	Long	Dec-Jun	2.5-4.0	Apparent	Feb-Jul	---	---
1104: Wendane-----	C	Occasional	Long	Dec-Jun	2.5-4.0	Apparent	Feb-Jul	---	---
Sonoma-----	C	Occasional	Long	Dec-Jun	1.5-3.0	Apparent	Feb-Jun	---	---
1110: Theon-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding					
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth	
					Ft					Ft
1120: Relley-----	B	Frequent	Very brief	Dec-Jun	>6.0	---	---	---	---	
Kelk-----	C	None	---	---	>6.0	---	---	---	---	
1140: Layview-----	D	None	---	---	>6.0	---	---	---	---	
Tusel-----	B	None	---	---	>6.0	---	---	---	---	
Layview-----	D	None	---	---	>6.0	---	---	---	---	
1142: Layview-----	D	None	---	---	>6.0	---	---	---	---	
Udelope-----	B	None	---	---	>6.0	---	---	---	---	
1150: Cotant-----	D	None	---	---	>6.0	---	---	---	---	
Say-----	B	None	---	---	>6.0	---	---	---	---	
Cotant-----	D	None	---	---	>6.0	---	---	---	---	
1151: Cotant-----	D	None	---	---	>6.0	---	---	---	---	
Say-----	B	None	---	---	>6.0	---	---	---	---	
Gol-----	D	None	---	---	>6.0	---	---	---	---	
1160: Hawsley-----	A	None	---	---	>6.0	---	---	---	---	
1161: Hawsley-----	A	None	---	---	>6.0	---	---	---	---	
Isolde-----	A	None	---	---	>6.0	---	---	---	---	
1162: Hawsley-----	A	None	---	---	>6.0	---	---	---	---	
Davey-----	B	None	---	---	>6.0	---	---	---	---	
Mazuma-----	B	None	---	---	>6.0	---	---	---	---	
1167: Hawsley-----	A	None	---	---	>6.0	---	---	---	---	
1168: Hawsley-----	A	None	---	---	>6.0	---	---	---	---	
Davey-----	B	None	---	---	>6.0	---	---	---	---	
Essal-----	B	None	---	---	>6.0	---	---	---	---	
1169: Hawsley-----	A	None	---	---	>6.0	---	---	---	---	
Soughe-----	D	None	---	---	>6.0	---	---	---	---	

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1169 (con.): Panlee-----	B	None	---	---	>6.0	---	---	---	---
1170: Hunnton-----	C	None	---	---	>6.0	---	---	---	---
Bliss-----	C	None	---	---	>6.0	---	---	---	---
Trunk-----	D	None	---	---	>6.0	---	---	---	---
1171: Hunnton-----	C	None	---	---	>6.0	---	---	---	---
Dugchip-----	C	None	---	---	>6.0	---	---	---	---
Orovada-----	B	None	---	---	>6.0	---	---	---	---
1172: Hunnton-----	C	None	---	---	>6.0	---	---	---	---
Flue-----	C	None	---	---	>6.0	---	---	---	---
McConnel-----	B	Rare	---	---	>6.0	---	---	---	---
1173: Hunnton-----	C	None	---	---	>6.0	---	---	---	---
1174: Hunnton-----	C	None	---	---	>6.0	---	---	---	---
Zevadez-----	C	None	---	---	>6.0	---	---	---	---
Enko-----	C	None	---	---	>6.0	---	---	---	---
1175: Hunnton-----	C	None	---	---	>6.0	---	---	---	---
Goosel-----	C	None	---	---	>6.0	---	---	---	---
Connel-----	B	Rare	---	---	>6.0	---	---	---	---
1176: Hunnton-----	C	None	---	---	>6.0	---	---	---	---
Hunnton-----	C	None	---	---	>6.0	---	---	---	---
Dacker-----	C	None	---	---	>6.0	---	---	---	---
1180: Rocconda-----	D	None	---	---	>6.0	---	---	---	---
Hoot-----	D	None	---	---	>6.0	---	---	---	---
1181: Rocconda-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
Hoot-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1184: Roccoonda----- Rock Outcrop.	D	None	---	---	>6.0	---	---	---	---
Panlee-----	B	None	---	---	>6.0	---	---	---	---
1185: Roccoonda-----	D	None	---	---	>6.0	---	---	---	---
Quomus-----	B	None	---	---	>6.0	---	---	---	---
Atlow-----	D	None	---	---	>6.0	---	---	---	---
1186: Roccoonda-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
Midraw-----	D	None	---	---	>6.0	---	---	---	---
1187: Roccoonda-----	D	None	---	---	>6.0	---	---	---	---
Panlee-----	B	None	---	---	>6.0	---	---	---	---
Hoot-----	D	None	---	---	>6.0	---	---	---	---
1188: Roccoonda-----	D	None	---	---	>6.0	---	---	---	---
Roccoonda-----	D	None	---	---	>6.0	---	---	---	---
1189: Roccoonda-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
1192: Enko-----	C	None	---	---	>6.0	---	---	---	---
1194: Enko-----	C	None	---	---	>6.0	---	---	---	---
1200: Erakatak-----	C	None	---	---	>6.0	---	---	---	---
Madeline-----	D	None	---	---	>6.0	---	---	---	---
1201: Erakatak-----	C	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Harcany-----	B	None	---	---	>6.0	---	---	---	---
1202: Erakatak-----	C	None	---	---	>6.0	---	---	---	---
Bullump-----	B	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydrologic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1202 (con.): Rock Outcrop.									
1210: Cresal-----	B	None	---	---	>6.0	---	---	---	---
Playas-----	D	Occasional	---	---	-1.0-1.0	Apparent	Feb-Sep	Long	1.0
1211: Cresal-----	B	None	---	---	>6.0	---	---	---	---
1212: Cresal-----	B	None	---	---	>6.0	---	---	---	---
Tresed-----	C	None	---	---	>6.0	---	---	---	---
Playas-----	D	Occasional	---	---	-1.0-1.0	Apparent	Feb-Sep	Long	1.0
1221: Alyan-----	C	None	---	---	>6.0	---	---	---	---
Bilbo-----	C	None	---	---	>6.0	---	---	---	---
1230: Knott-----	D	None	---	---	>6.0	---	---	---	---
Sodhouse-----	D	None	---	---	>6.0	---	---	---	---
Wholan-----	B	Rare	---	---	>6.0	---	---	---	---
1240: Laped-----	D	None	---	---	>6.0	---	---	---	---
1241: Laped-----	D	None	---	---	>6.0	---	---	---	---
Boger-----	D	None	---	---	>6.0	---	---	---	---
1255: Dutchjohn-----	B	None	---	---	>6.0	---	---	---	---
Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Bregar-----	D	None	---	---	>6.0	---	---	---	---
1260: Weso-----	B	None	---	---	>6.0	---	---	---	---
Trocken-----	B	None	---	---	>6.0	---	---	---	---
1271: Gol-----	D	None	---	---	>6.0	---	---	---	---
Say-----	B	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
1285: Igdell-----	C	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1285 (con.): Gochea-----	B	None	---	---	>6.0	---	---	---	---
1291: Tresed-----	C	None	---	---	>6.0	---	---	---	---
Isolde-----	A	None	---	---	>6.0	---	---	---	---
1292: Tresed-----	C	None	---	---	>6.0	---	---	---	---
1310: Dewar-----	D	None	---	---	>6.0	---	---	---	---
Tenabo-----	D	None	---	---	>6.0	---	---	---	---
1312: Dewar-----	D	None	---	---	>6.0	---	---	---	---
Dacker-----	C	None	---	---	>6.0	---	---	---	---
Dewar-----	D	None	---	---	>6.0	---	---	---	---
1313: Dewar-----	D	None	---	---	>6.0	---	---	---	---
Sodhouse-----	D	None	---	---	>6.0	---	---	---	---
Midraw-----	D	None	---	---	>6.0	---	---	---	---
1314: Dewar-----	D	None	---	---	>6.0	---	---	---	---
Zevadez-----	C	None	---	---	>6.0	---	---	---	---
1315: Dewar-----	D	None	---	---	>6.0	---	---	---	---
Chiara-----	D	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
1321: Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Midraw-----	D	None	---	---	>6.0	---	---	---	---
1322: Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
1324: Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Panlee-----	B	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1324 (con.): Gowjai-----	B	None	---	---	>6.0	---	---	---	---
1327: Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Gowjai-----	B	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
1331: Siscab-----	D	None	---	---	>6.0	---	---	---	---
Aycab-----	C	None	---	---	>6.0	---	---	---	---
Ola-----	C	None	---	---	>6.0	---	---	---	---
1332: Siscab-----	D	None	---	---	>6.0	---	---	---	---
Ola-----	C	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
1333: Siscab-----	D	None	---	---	>6.0	---	---	---	---
Say-----	B	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
1334: Siscab-----	D	None	---	---	>6.0	---	---	---	---
Eaglerock-----	C	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
1335: Siscab-----	D	None	---	---	>6.0	---	---	---	---
Westbutte-----	C	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
1341: Longcreek-----	D	None	---	---	>6.0	---	---	---	---
Menbo-----	C	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
1342: Longcreek-----	D	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
1344: Longcreek-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1344 (con.): Softscrabble-----	C	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
1345: Longcreek-----	D	None	---	---	>6.0	---	---	---	---
Zymans-----	C	None	---	---	>6.0	---	---	---	---
1360: Midraw-----	D	None	---	---	>6.0	---	---	---	---
Midraw-----	D	None	---	---	>6.0	---	---	---	---
1362: Midraw-----	D	None	---	---	>6.0	---	---	---	---
Midraw-----	D	None	---	---	>6.0	---	---	---	---
Hunnton-----	C	None	---	---	>6.0	---	---	---	---
1371: Devada-----	D	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
1373: Devada-----	D	None	---	---	>6.0	---	---	---	---
Zymans-----	C	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
1380: Genaw-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
Roccoonda-----	D	None	---	---	>6.0	---	---	---	---
1381: Genaw-----	D	None	---	---	>6.0	---	---	---	---
Trunk-----	D	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
1382: Genaw-----	D	None	---	---	>6.0	---	---	---	---
Puett-----	D	None	---	---	>6.0	---	---	---	---
1390: Mulhop-----	D	None	---	---	>6.0	---	---	---	---
Xine-----	C	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1390 (con.): Rock Outcrop.									
1400: Madeline-----	D	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
1410: Say-----	B	None	---	---	>6.0	---	---	---	---
Tosp-----	B	None	---	---	>6.0	---	---	---	---
Aycab-----	C	None	---	---	>6.0	---	---	---	---
1411: Say-----	B	None	---	---	>6.0	---	---	---	---
Aycab-----	C	None	---	---	>6.0	---	---	---	---
1420: Panlee-----	B	None	---	---	>6.0	---	---	---	---
Panlee-----	B	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
1421: Panlee-----	B	None	---	---	>6.0	---	---	---	---
Davey-----	B	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
1423: Panlee-----	B	None	---	---	>6.0	---	---	---	---
Vanwyper-----	C	None	---	---	>6.0	---	---	---	---
Carstump-----	C	None	---	---	>6.0	---	---	---	---
1431: Rodock-----	B	Rare	---	---	>6.0	---	---	---	---
Hunnton-----	C	None	---	---	>6.0	---	---	---	---
1432: Rodock-----	B	Rare	---	---	>6.0	---	---	---	---
Connel-----	B	Rare	---	---	>6.0	---	---	---	---
1433: Rodock-----	B	Rare	---	---	>6.0	---	---	---	---
1436: Rodock-----	B	Rare	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1437: Rodock-----	B	Rare	---	---	>6.0	---	---	---	---
1450: Wiskan-----	C	None	---	---	>6.0	---	---	---	---
Climine-----	B	None	---	---	>6.0	---	---	---	---
1460: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Reluctan-----	C	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
1461: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
Alyan-----	C	None	---	---	>6.0	---	---	---	---
1462: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
1464: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Anawalt-----	D	None	---	---	>6.0	---	---	---	---
Sumine-----	C	None	---	---	>6.0	---	---	---	---
1465: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Cleavage-----	D	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
1466: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Bullump-----	B	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
1467: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Udelope-----	B	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
1468: Ninemile-----	D	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro- logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1468 (con.): Softscrabble----	C	None	---	---	>6.0	---	---	---	---
Ninemile-----	D	None	---	---	>6.0	---	---	---	---
1469: Ninemile-----	D	None	---	---	>6.0	---	---	---	---
Softscrabble----	C	None	---	---	>6.0	---	---	---	---
Sumine-----	C	None	---	---	>6.0	---	---	---	---
1470: Zymans-----	C	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
1471: Zymans-----	C	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
Soughe-----	D	None	---	---	>6.0	---	---	---	---
1472: Zymans-----	C	None	---	---	>6.0	---	---	---	---
Zymans-----	C	None	---	---	>6.0	---	---	---	---
Burrita-----	D	None	---	---	>6.0	---	---	---	---
1473: Zymans-----	C	None	---	---	>6.0	---	---	---	---
Genaw-----	D	None	---	---	>6.0	---	---	---	---
1480: Tusel-----	B	None	---	---	>6.0	---	---	---	---
Rock Outcrop.									
1481: Tusel-----	B	None	---	---	>6.0	---	---	---	---
Cleavage-----	D	None	---	---	>6.0	---	---	---	---
1482: Tusel-----	B	None	---	---	>6.0	---	---	---	---
Layview-----	D	None	---	---	>6.0	---	---	---	---
1483: Tusel-----	B	None	---	---	>6.0	---	---	---	---
Hackwood-----	B	None	---	---	>6.0	---	---	---	---
Spinlin-----	C	None	---	---	>6.0	---	---	---	---

TABLE 15.--WATER FEATURES--Continued

Map symbol and soil name	Hydro-logic group	Flooding			High water table and ponding				
		Frequency	Duration	Months	Water table depth	Kind of water table	Months	Ponding duration	Maximum ponding depth
					Ft				Ft
1561: Menbo-----	C	None	---	---	>6.0	---	---	---	---
Madeline-----	D	None	---	---	>6.0	---	---	---	---
Tusel-----	B	None	---	---	>6.0	---	---	---	---
1562: Menbo-----	C	None	---	---	>6.0	---	---	---	---
Devada-----	D	None	---	---	>6.0	---	---	---	---
Longcreek-----	D	None	---	---	>6.0	---	---	---	---
1570: Delvada-----	D	Occasional	Very long	Feb-Jul	0.5-2.0	Apparent	Feb-Jul	---	---
1572: Delvada-----	D	Rare	---	---	4.0-6.0	Apparent	Feb-Jul	---	---
1579: Delvada-----	D	Occasional	Very long	Feb-Jul	0.5-2.0	Apparent	Feb-Jul	---	---
1580: Isolde-----	A	None	---	---	>6.0	---	---	---	---
Essal-----	B	None	---	---	>6.0	---	---	---	---
Essal-----	B	None	---	---	>6.0	---	---	---	---
1594: Boton-----	B	None	---	---	>6.0	---	---	---	---
Boton-----	B	Occasional	Brief	Feb-Jun	>6.0	---	---	---	---
1600: Clurde-----	B	None	---	---	>6.0	---	---	---	---
1610: Gochea-----	B	None	---	---	>6.0	---	---	---	---
Gochea-----	B	None	---	---	>6.0	---	---	---	---
Igdell-----	C	None	---	---	>6.0	---	---	---	---
1620: Wesco-----	B	None	---	---	>6.0	---	---	---	---
1621: Wesco-----	B	None	---	---	>6.0	---	---	---	---
Wholan-----	B	Rare	---	---	>6.0	---	---	---	---
1622: Wesco-----	B	None	---	---	>6.0	---	---	---	---
Davey-----	B	None	---	---	>6.0	---	---	---	---
Broyles-----	B	None	---	---	>6.0	---	---	---	---

TABLE 16.--SOIL FEATURES

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
100: Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Alyan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
101: Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Alyan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
102: Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Tusk-----	---	---	---	---	0	---	Moderate	Moderate	Low
106: Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Alyan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
107: Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Tusk-----	---	---	---	---	0	---	Moderate	Moderate	Low
108: Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Alyan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
110: Adelaide-----	10-15	Duripan	0-3	Moderately cemented	0	---	Low	High	High
120: Bregar-----	5-12	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Tusk-----	---	---	---	---	0	---	Moderate	Moderate	Low
Bregar-----	5-12	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
122: Bregar-----	5-12	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
131: Benin-----	---	---	---	---	0	---	Low	High	High
133: Benin-----	---	---	---	---	0	---	Low	High	High

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
					In	In			
141: Beoska-----	---	---	---	---	0	---	Low	High	High
Bluewing-----	---	---	---	---	0	---	Low	High	Low
143: Beoska-----	---	---	---	---	0	---	Low	High	High
Broyles-----	---	---	---	---	0	---	Low	High	High
144: Beoska-----	---	---	---	---	0	---	Low	High	High
Dun Glen-----	---	---	---	---	0	---	Low	High	Low
145: Beoska-----	---	---	---	---	0	---	Low	High	High
Beoska-----	---	---	---	---	0	---	Low	High	High
Weso-----	---	---	---	---	0	---	Low	High	Low
151: Blackhawk-----	14-20	Duripan	4-17	Moderately cemented	0	---	Low	High	High
152: Blackhawk-----	14-20	Duripan	4-17	Moderately cemented	0	---	Low	High	High
154: Blackhawk-----	14-20	Duripan	4-17	Moderately cemented	0	---	Low	High	High
Golconda-----	20-40	Duripan	4-17	Moderately cemented	0	---	Low	High	Moderate
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
155: Blackhawk-----	14-20	Duripan	4-17	Moderately cemented	0	---	Low	High	High
156: Blackhawk-----	14-20	Duripan	4-17	Moderately cemented	0	---	Low	High	High
Clurde-----	---	---	---	---	0	---	Moderate	High	Low
157: Blackhawk-----	14-20	Duripan	4-17	Moderately cemented	0	---	Low	High	High
Broyles-----	---	---	---	---	0	---	Low	High	Moderate
158: Blackhawk-----	14-20	Duripan	4-17	Moderately cemented	0	---	Low	High	High
Trocken-----	---	---	---	---	0	---	Low	High	High
160: Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
161: Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Chiara-----	10-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
163: Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
165: Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Dugchip-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Moderate
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
166: Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
167: Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Blackhawk-----	14-20	Duripan	4-17	Moderately cemented	0	---	Low	High	High
Adelaide-----	10-15	Duripan	0-3	Moderately cemented	0	---	Low	High	High
169: Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
171: Bubus-----	---	---	---	---	0	---	Low	High	High
174: Bubus-----	---	---	---	---	0	---	Low	High	High
Needle Peak-----	---	---	---	---	0	---	High	High	High
178: Bubus-----	---	---	---	---	0	---	Low	High	High
Preble-----	---	---	---	---	0	---	Moderate	High	High
184: Chiara-----	10-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
McConnel-----	---	---	---	---	0	---	Low	High	Moderate

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
185: Chiara-----	10-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Dacker-----	20-35	Duripan	4-17	Indurated	0	---	Moderate	High	Low
McConnel-----	---	---	---	---	0	---	Low	High	Moderate
186: Chiara-----	10-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
187: Chiara-----	10-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Boger-----	14-20 18-30	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
Chiara-----	10-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
188: Chiara-----	12-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Chiara-----	12-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
190: Becox-----	---	---	---	---	0	---	Low	High	Moderate
Oxcotel-----	---	---	---	---	0	---	Low	High	High
191: Becox-----	---	---	---	---	0	---	Low	High	Moderate
Connel-----	---	---	---	---	0	---	Moderate	High	High
192: Becox-----	---	---	---	---	0	---	Low	High	Moderate
Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
200: Davey-----	---	---	---	---	0	---	Low	High	Moderate
201: Davey-----	---	---	---	---	0	---	Low	High	Low
202: Davey-----	---	---	---	---	0	---	Low	High	Low
203: Davey-----	40-60	Duripan	4-17	Moderately cemented	0	---	Low	High	Low
Goldrun-----	---	---	---	---	0	---	Low	High	Low
204: Davey-----	---	---	---	---	0	---	Low	High	Low
Blackhawk-----	14-20	Duripan	4-17	Moderately cemented	0	---	Low	High	High
205: Davey-----	---	---	---	---	0	---	Low	High	Low
Hawsley-----	---	---	---	---	0	---	Low	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth In	Kind	Thickness In	Hardness	Initial In	Total In		Uncoated steel	Concrete
206: Broyles-----	---	---	---	---	0	---	Low	High	High
Davey-----	---	---	---	---	0	---	Low	High	Low
Dun Glen-----	---	---	---	---	0	---	Low	High	Low
207: Davey-----	---	---	---	---	0	---	Low	High	Low
Pumper-----	---	---	---	---	0	---	Low	High	Low
208: Davey-----	---	---	---	---	0	---	Low	High	Low
210: Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
Connel-----	---	---	---	---	0	---	Moderate	High	High
211: Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
Golconda-----	20-40	Duripan	4-17	Moderately cemented	0	---	Low	High	Moderate
Snapp-----	---	---	---	---	0	---	Moderate	High	High
212: Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
213: Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
Puett-----	10-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
215: Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
Snapp-----	---	---	---	---	0	---	Moderate	High	High
Snapp-----	---	---	---	---	0	---	Moderate	High	High
216: Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
217: Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
218: Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
Rodock-----	---	---	---	---	0	---	Moderate	High	Low
Snapp-----	---	---	---	---	0	---	Moderate	High	High
222: Bloor-----	---	---	---	---	0	---	Moderate	High	High
231: Dun Glen-----	---	---	---	---	0	---	Low	High	Low
233: Dun Glen-----	---	---	---	---	0	---	Low	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
241: Sojur-----	4-10	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
250: Connel-----	---	---	---	---	0	---	Moderate	High	High
Davey-----	---	---	---	---	0	---	Low	High	Low
Goldrun-----	---	---	---	---	0	---	Low	High	Low
251: Connel-----	---	---	---	---	0	---	Moderate	High	High
252: Connel-----	---	---	---	---	0	---	Moderate	High	High
253: Connel-----	---	---	---	---	0	---	Moderate	High	High
McConnel-----	---	---	---	---	0	---	Low	High	Low
254: Connel-----	---	---	---	---	0	---	Moderate	High	High
Zevadez-----	---	---	---	---	0	---	Moderate	High	Low
255: Connel-----	---	---	---	---	0	---	Moderate	High	High
McConnel-----	---	---	---	---	0	---	Low	High	Moderate
257: Connel-----	---	---	---	---	0	---	Moderate	High	High
258: Connel-----	---	---	---	---	0	---	Moderate	High	High
262: Golconda-----	20-40	Duripan	4-17	Moderately cemented	0	---	Low	High	Moderate
Snapp-----	---	---	---	---	0	---	Moderate	High	High
263: Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Golconda-----	20-40	Duripan	4-17	Moderately cemented	0	---	Low	High	Moderate
Connel-----	---	---	---	---	0	---	Moderate	High	High
270: Goldrun-----	---	---	---	---	0	---	Low	High	Low
271: Goldrun-----	---	---	---	---	0	---	Low	High	Low
272: Goldrun-----	---	---	---	---	0	---	Low	High	Low
274: Goldrun-----	---	---	---	---	0	---	Low	High	Low
Benin-----	---	---	---	---	0	---	Low	High	High

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
275: Goldrun-----	---	---	---	---	0	---	Low	High	Low
Preble-----	---	---	---	---	0	---	Moderate	High	High
281: Golsum-----	20-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low
Spinlin-----	30-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
290: Havingdon-----	20-26	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
292: Havingdon-----	20-26	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Gowjai-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Walti-----	20-30	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
302: Essal-----	---	---	---	---	0	---	Low	High	Moderate
Isolde-----	---	---	---	---	0	---	Low	High	Low
Playas-----	---	---	---	---	0	---	None	High	High
305: Essal-----	---	---	---	---	0	---	Low	High	Moderate
Isolde-----	---	---	---	---	0	---	Low	High	Low
Hawsley-----	---	---	---	---	0	---	Low	High	Low
307: Essal-----	---	---	---	---	0	---	Low	High	Moderate
Isolde-----	---	---	---	---	0	---	Low	High	Low
Tresed-----	---	---	---	---	0	---	Low	High	High
311: Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low
Croesus-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Hackwood-----	---	---	---	---	0	---	Moderate	Moderate	Low
312: Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low
Hackwood-----	---	---	---	---	0	---	Moderate	Moderate	Low
Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
321: Humboldt-----	---	---	---	---	0	---	High	High	Low
322: Humboldt-----	---	---	---	---	0	---	High	High	High

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
325: Humboldt-----	---	---	---	---	0	---	High	High	Low
Wendane-----	---	---	---	---	0	---	High	High	High
330: McConnel-----	---	---	---	---	0	---	Low	High	Moderate
331: McConnel-----	---	---	---	---	0	---	Low	High	Moderate
333: McConnel-----	---	---	---	---	0	---	Low	High	Low
Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
335: McConnel-----	---	---	---	---	0	---	Low	High	Low
338: McConnel-----	---	---	---	---	0	---	Low	High	Moderate
Pumper-----	---	---	---	---	0	---	Low	High	Low
Whirlo-----	---	---	---	---	0	---	Low	High	Low
340: Boger-----	14-20 18-30	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
342: Boger-----	14-20 18-30	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
Goosel-----	20-36 21-40	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
343: Boger-----	14-20 18-30	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
351: Goldrun-----	---	---	---	---	0	---	Low	High	Low
Prideen-----	---	---	---	---	0	---	High	High	High
Playas-----	---	---	---	---	0	---	None	High	High
352: Goldrun-----	---	---	---	---	0	---	Low	High	Low
Kleck-----	14-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	High
Davey-----	---	---	---	---	0	---	Low	High	Low
360: Needle Peak-----	---	---	---	---	0	---	High	High	High

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
363: Needle Peak-----	---	---	---	---	0	---	High	High	High
Batan-----	---	---	---	---	0	---	Low	High	High
Goldrun-----	---	---	---	---	0	---	Low	High	Low
370: Wieland-----	---	---	---	---	0	---	Moderate	High	Low
Wieland-----	---	---	---	---	0	---	Moderate	High	Low
380: Bullump-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
381: Bullump-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Hackwood-----	---	---	---	---	0	---	Moderate	Moderate	Low
391: Aycab-----	24-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
403: Orovada-----	---	---	---	---	0	---	Moderate	High	Moderate
406: Orovada-----	---	---	---	---	0	---	Moderate	High	Moderate
407: Orovada-----	---	---	---	---	0	---	Moderate	High	Moderate
409: Orovada-----	---	---	---	---	0	---	Moderate	High	Low
Goldrun-----	---	---	---	---	0	---	Low	High	Low
410: Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Orovada-----	---	---	---	---	0	---	Moderate	High	Moderate
411: Orovada-----	---	---	---	---	0	---	Moderate	High	Low
Dugchip-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Moderate
417: Orovada-----	---	---	---	---	0	---	Moderate	High	Moderate
Connel-----	---	---	---	---	0	---	Moderate	High	High
420: Bubus-----	---	---	---	---	0	---	Low	High	High
431: Preble-----	---	---	---	---	0	---	Moderate	High	High

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
432: Preble-----	---	---	---	---	0	---	Moderate	High	High
Goldrun-----	---	---	---	---	0	---	Low	High	Low
Playas-----	---	---	---	---	0	---	None	High	High
435: Preble-----	---	---	---	---	0	---	Moderate	High	High
436: Preble-----	---	---	---	---	0	---	Moderate	High	High
Valmy-----	---	---	---	---	0	---	Low	High	Low
Valmy-----	---	---	---	---	0	---	Low	High	Low
437: Preble-----	---	---	---	---	0	---	Moderate	High	High
Davey-----	---	---	---	---	0	---	Low	High	Moderate
438: Preble-----	---	---	---	---	0	---	Moderate	High	High
Bubus-----	---	---	---	---	0	---	Low	High	High
440: Prideen-----	---	---	---	---	0	---	High	High	High
441: Prideen-----	---	---	---	---	0	---	High	High	High
452: Kingsriver-----	---	---	---	---	0	---	High	High	Low
453: Kingsriver-----	---	---	---	---	0	---	High	High	Low
460: Rad-----	---	---	---	---	0	---	Moderate	High	Moderate
461: Rad-----	---	---	---	---	0	---	Moderate	High	Moderate
462: Rad-----	---	---	---	---	0	---	Moderate	High	Moderate
470: Raglan-----	---	---	---	---	0	---	Low	High	High
471: Raglan-----	---	---	---	---	0	---	Low	High	High
474: Raglan-----	---	---	---	---	0	---	Low	High	High
Kleck-----	14-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	High
480: Rebel-----	---	---	---	---	0	---	Moderate	High	Low
487: Rebel-----	---	---	---	---	0	---	Moderate	High	Low
490: Rose Creek-----	---	---	---	---	0	---	High	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
491: Rose Creek-----	---	---	---	---	0	---	High	High	Moderate
492: Rose Creek-----	---	---	---	---	0	---	High	High	Low
501: Enko-----	---	---	---	---	0	---	Moderate	High	Low
502: Enko-----	---	---	---	---	0	---	Moderate	High	Low
Goldrun-----	---	---	---	---	0	---	Low	High	Low
503: Enko-----	---	---	---	---	0	---	Moderate	High	Low
504: Enko-----	---	---	---	---	0	---	Moderate	High	Low
Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
505: Enko-----	---	---	---	---	0	---	Moderate	High	Low
507: Enko-----	---	---	---	---	0	---	Moderate	High	Low
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
511: Mazuma-----	---	---	---	---	0	---	Low	High	High
Trocken-----	---	---	---	---	0	---	Low	High	High
520: Lunder-----	14-20	Duripan	4-17	Indurated	0	---	Low	Moderate	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
522: Lunder-----	14-20	Duripan	4-17	Indurated	0	---	Low	Moderate	Low
Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
530: Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
532: Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Enko-----	---	---	---	---	0	---	Moderate	High	Low
Valmy-----	---	---	---	---	0	---	Low	High	Low
533: Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Connel-----	---	---	---	---	0	---	Moderate	High	High

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
534: Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Puett-----	10-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
536: Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Enko-----	---	---	---	---	0	---	Moderate	High	Low
Dugchip-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Moderate
537: Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Genaw-----	14-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
543: Pumper-----	---	---	---	---	0	---	Low	High	Low
Connel-----	---	---	---	---	0	---	Moderate	High	High
544: Pumper-----	---	---	---	---	0	---	Low	High	Low
Weso-----	---	---	---	---	0	---	Low	High	Low
545: Dun Glen-----	---	---	---	---	0	---	Low	High	Low
Pumper-----	---	---	---	---	0	---	Low	High	Low
Davey-----	---	---	---	---	0	---	Low	High	Low
551: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Carstump-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
552: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
553: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Tusk-----	---	---	---	---	0	---	Moderate	Moderate	Low
555: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Alyan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
557: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
558: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
559: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
561: Sonoma-----	---	---	---	---	0	---	High	High	High
562: Sonoma-----	---	---	---	---	0	---	High	High	Low
563: Sonoma-----	---	---	---	---	0	---	High	High	High
564: Sonoma-----	---	---	---	---	0	---	High	High	Low
566: Sonoma-----	---	---	---	---	0	---	High	High	High
Paranat-----	---	---	---	---	0	---	High	High	High
567: Sonoma-----	---	---	---	---	0	---	High	High	Low
573: Spinlin-----	30-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low
Hackwood-----	---	---	---	---	0	---	Moderate	Moderate	Low
574: Spinlin-----	30-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
Hackwood-----	---	---	---	---	0	---	Moderate	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
580: Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Softscrabble---	---	---	---	---	0	---	Moderate	Moderate	Low
581: Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Gosumi-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Nomara-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
582: Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
583: Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Gosumi-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low
584: Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
585: Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
586: Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Rubble Land----	40-40	Bedrock (lithic)	---	Indurated	0	---	None	---	---
Reluctan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
587: Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Gosumi-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low
588: Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Rubble Land----	40-40	Bedrock (lithic)	---	Indurated	0	---	None	---	---
589: Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low
590: Trunk-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Madeline-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
592: Trunk-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Pocan-----	40-55 43-60	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
593: Trunk-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
594: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Trunk-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Quomus-----	---	---	---	---	---	---	Moderate	High	Low
596: Trunk-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
597: Trunk-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
600: Valmy-----	---	---	---	---	0	---	Low	High	Low
603: Valmy-----	---	---	---	---	0	---	Low	High	Low
Goldrun-----	---	---	---	---	0	---	Low	High	Low
604: Valmy-----	---	---	---	---	0	---	Low	High	Low
Bubus-----	---	---	---	---	0	---	Low	High	High
Needle Peak-----	---	---	---	---	0	---	High	High	High
606: Valmy-----	---	---	---	---	0	---	Low	High	Low
611: Weso-----	---	---	---	---	0	---	Low	High	Low
613: Weso-----	---	---	---	---	0	---	Low	High	Low
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
Shabliss-----	10-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
614: Weso-----	---	---	---	---	0	---	Low	High	Moderate
615: Weso-----	---	---	---	---	0	---	Low	High	Low
617: Weso-----	---	---	---	---	0	---	Low	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
618: Weso-----	---	---	---	---	0	---	Low	High	Low
Kelk-----	---	---	---	---	0	---	Moderate	High	Low
619: Weso-----	---	---	---	---	0	---	Low	High	Low
Rebel-----	---	---	---	---	0	---	Moderate	High	Low
620: Carstump-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
631: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
633: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Midraw-----	14-20 22-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
634: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Zymans-----	40-60	Bedrock (paralithic)	---	Moderately cemented	0	---	Low	High	Low
636: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Rubble Land----	40-40	Bedrock (lithic)	---	Indurated	0	---	None	---	---
Clementine-----	---	---	---	---	0	---	High	High	Low
637: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Dewar-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
638: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
640: Clementine-----	---	---	---	---	0	---	High	High	Low
641: Clementine-----	---	---	---	---	0	---	High	High	Low
Paranat-----	---	---	---	---	0	---	High	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth In	Kind	Thickness In	Hardness	Initial In	Total In		Uncoated steel	Concrete
642: Clementine-----	---	---	---	---	0	---	High	High	Low
Rose Creek-----	---	---	---	---	0	---	High	High	Low
646: Clementine-----	---	---	---	---	0	---	High	High	Low
Paranat-----	---	---	---	---	0	---	High	High	Low
651: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Atlow-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
652: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Havingdon-----	20-26	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Reluctan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
653: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Havingdon-----	20-26	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
654: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
655: Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Hoot-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
657: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Snowmore-----	20-34 21-40	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
658: Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
660: Beoska-----	---	---	---	---	0	---	Low	High	High
Oxcorel-----	---	---	---	---	0	---	Low	High	High
Whirlo-----	---	---	---	---	0	---	Low	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
661: Oxcorel-----	---	---	---	---	0	---	Low	High	High
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
663: Oxcorel-----	---	---	---	---	0	---	Low	High	High
Weso-----	---	---	---	---	0	---	Low	High	Low
Beoska-----	---	---	---	---	0	---	Low	High	High
664: Oxcorel-----	---	---	---	---	0	---	Low	High	High
Golconda-----	20-40	Duripan	4-17	Moderately cemented	0	---	Low	High	Moderate
665: Oxcorel-----	---	---	---	---	0	---	Low	High	Moderate
Snapp-----	---	---	---	---	0	---	Moderate	High	High
669: Oxcorel-----	---	---	---	---	0	---	Low	High	Moderate
Dewar-----	14-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
670: Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Goosel-----	20-36 21-40	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
671: Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
673: Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
676: Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Snowmore-----	20-34 21-40	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
Midraw-----	14-20 22-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
677: Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
678:									
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Rubble Land----	40-40	Bedrock (lithic)	---	Indurated	0	---	None	---	---
680:									
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Trunk-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
690:									
Sodhouse-----	14-20	Duripan	4-17	Indurated	0	---	Low	High	Low
Golconda-----	20-40	Duripan	4-17	Moderately cemented	0	---	Low	High	Moderate
691:									
Sodhouse-----	14-20	Duripan	4-17	Indurated	0	---	Low	High	Low
Chiara-----	10-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
700:									
Atlow-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Gowjai-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
701:									
Atlow-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Wiskan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
704:									
Atlow-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Hoot-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Atlow-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
710:									
Xipe-----	---	---	---	---	0	---	High	High	Low
720:									
Dewar-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Sodhouse-----	14-20	Duripan	4-17	Indurated	0	---	Low	High	Low
721:									
Dewar-----	14-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Laped-----	14-20	Duripan	4-17	Indurated	0	---	Low	High	Low
	20-30	Bedrock (lithic)							
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
722:									
Dewar-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
724: Dewar-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Hoot-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
726: Dewar-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Dewar-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
727: Dewar-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Midraw-----	14-20 20-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
Dewar-----	14-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
728: Dewar-----	14-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Midraw-----	14-20 22-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
729: Dewar-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Boger-----	14-20 18-30	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
732: Kelk-----	---	---	---	---	0	---	Moderate	High	Moderate
Kelk-----	---	---	---	---	0	---	Moderate	High	Low
733: Kelk-----	---	---	---	---	0	---	Moderate	High	Low
Enko-----	---	---	---	---	0	---	Moderate	High	Low
734: Kelk-----	---	---	---	---	0	---	Moderate	High	Low
736: Kelk-----	---	---	---	---	0	---	Moderate	High	Low
Kortty-----	50-60	Duripan	4-17	Moderately cemented	0	---	Low	High	Low
740: Gowjai-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
750: Snapp-----	---	---	---	---	0	---	Moderate	High	High
Oxcorel-----	---	---	---	---	0	---	Low	High	High
751: Snapp-----	---	---	---	---	0	---	Moderate	High	High
Sodhouse-----	14-20	Duripan	4-17	Indurated	0	---	Low	High	Low
752: Snapp-----	---	---	---	---	0	---	Moderate	High	High
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
753: Snapp-----	---	---	---	---	0	---	Moderate	High	High
Dugchip-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Moderate
Connel-----	---	---	---	---	0	---	Moderate	High	High
754: Snapp-----	---	---	---	---	0	---	Moderate	High	High
Puett-----	10-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
755: Snapp-----	---	---	---	---	0	---	Moderate	High	High
Connel-----	---	---	---	---	0	---	Moderate	High	High
756: Snapp-----	---	---	---	---	0	---	Moderate	High	High
Adelaide-----	10-15	Duripan	0-3	Moderately cemented	0	---	Low	High	High
McConnel-----	---	---	---	---	0	---	Low	High	Moderate
760: Piline-----	---	---	---	---	0	---	Moderate	High	Low
Piline-----	---	---	---	---	0	---	Moderate	High	Low
761: Piline-----	---	---	---	---	0	---	Moderate	High	Low
772: Broyles-----	---	---	---	---	0	---	Low	High	Moderate
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
773: Broyles-----	---	---	---	---	0	---	Low	High	High
774: Broyles-----	---	---	---	---	0	---	Low	High	Moderate
775: Broyles-----	---	---	---	---	0	---	Low	High	Moderate
Bubus-----	---	---	---	---	0	---	Low	High	High
Goldrun-----	---	---	---	---	0	---	Low	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
780: Dacker-----	20-35	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Chiara-----	10-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
781: Dacker-----	20-35	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Bilbo-----	---	---	---	---	0	---	Low	High	Low
782: Dacker-----	20-35	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Snowmore-----	20-34 21-40	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
790: Rio King-----	---	---	---	---	0	---	Moderate	High	Low
791: Rio King-----	---	---	---	---	0	---	Moderate	High	Moderate
800: Udelope-----	8-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Moderate
Bregar-----	5-12	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
801: Udelope-----	8-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Moderate
Hackwood-----	---	---	---	---	0	---	Moderate	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
810: Batán-----	---	---	---	---	0	---	Low	High	High
Goldrun-----	---	---	---	---	0	---	Low	High	Low
811: Batán-----	---	---	---	---	0	---	Low	High	High
Batán-----	---	---	---	---	0	---	Low	High	High
813: Batán-----	---	---	---	---	0	---	Low	High	High
815: Batán-----	---	---	---	---	0	---	Low	High	High
Prideen-----	---	---	---	---	0	---	High	High	High
Wendane-----	---	---	---	---	0	---	High	High	High
818: Batán-----	---	---	---	---	0	---	Low	High	High
Bubus-----	---	---	---	---	0	---	Low	High	High
Goldrun-----	---	---	---	---	0	---	Low	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
823: Whirlo-----	---	---	---	---	0	---	Low	High	Low
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
Snapp-----	---	---	---	---	0	---	Moderate	High	High
825: Whirlo-----	---	---	---	---	0	---	Low	High	Low
Oxcorel-----	---	---	---	---	0	---	Low	High	High
Weso-----	---	---	---	---	0	---	Low	High	Low
831: Boton-----	---	---	---	---	0	---	Low	High	High
Playas-----	---	---	---	---	0	---	None	High	High
833: Boton-----	---	---	---	---	0	---	Low	High	High
Isolde-----	---	---	---	---	0	---	Low	High	Low
Boton-----	---	---	---	---	0	---	Low	High	High
834: Boton-----	---	---	---	---	0	---	Low	High	High
Davey-----	---	---	---	---	0	---	Low	High	Low
840: Dugchip-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Moderate
Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
Dewar-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
842: Dugchip-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Moderate
Kelk-----	---	---	---	---	0	---	Moderate	High	Low
844: Dugchip-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Moderate
Chiara-----	10-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
845: Dugchip-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Moderate
Needle Peak---	---	---	---	---	0	---	High	High	High
860: Goosel-----	20-36 21-40	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
861: Goosel-----	20-36 21-40	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
862: Goosel-----	20-36 21-40	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Goosel-----	20-36 21-40	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
863: Goosel-----	20-36 21-40	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Midraw-----	14-20 20-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
880: Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low
881: Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Bregar-----	5-12	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
882: Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
883: Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
884: Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
885: Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Reluctan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
886: Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Bullump-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
891: Softscrabble---	---	---	---	---	0	---	Moderate	Moderate	Low
Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
892: Softscrabble----	---	---	---	---	0	---	Moderate	Moderate	Low
Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
900: Roca-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Bregar-----	5-12	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Linrose-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
901: Roca-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Reluctan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
902: Roca-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Alyan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Quomus-----	---	---	---	---	---	---	Moderate	High	Low
903: Roca-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Walti-----	20-30	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Reluctan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
907: Roca-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Climine-----	---	---	---	---	0	---	Moderate	Moderate	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
909: Roca-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Nomara-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
911: Barnard-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Barnard-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
921: Walti-----	20-30	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Reluctan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
922: Walti-----	20-30	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Reluctan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
923:									
Walti-----	20-30	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
924:									
Walti-----	20-30	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Tusk-----	---	---	---	---	0	---	Moderate	Moderate	Low
Alyan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
930:									
Tenabo-----	9-20	Duripan	4-17	Indurated	0	---	Low	High	Moderate
Oxcorel-----	---	---	---	---	0	---	Low	High	Moderate
940:									
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
941:									
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
942:									
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
943:									
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
944:									
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
946:									
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Rubble Land----	40-40	Bedrock (lithic)	---	Indurated	0	---	None	---	---
947:									
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
					In	In			
954: Puffer-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Xine-----	20-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
955: Puffer-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
960: Zevadez-----	---	---	---	---	0	---	Moderate	High	Low
Wieland-----	---	---	---	---	0	---	Moderate	High	Low
Kelk-----	---	---	---	---	0	---	Moderate	High	Low
962: Zevadez-----	---	---	---	---	0	---	Moderate	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
963: Zevadez-----	---	---	---	---	0	---	Moderate	High	Low
McConnel-----	---	---	---	---	0	---	Low	High	Moderate
964: Zevadez-----	---	---	---	---	0	---	Moderate	High	Low
970: Gosumi-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Walti-----	20-30	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
980: Snowmore-----	20-34 21-40	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
Snowmore-----	20-34 21-40	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
981: Snowmore-----	20-34 21-40	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
Zevadez-----	---	---	---	---	0	---	Moderate	High	Low
Snowmore-----	20-34 21-40	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
983: Snowmore-----	20-34 21-40	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
					In	In			
984: Snowmore-----	20-34 21-40	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
990: Playas-----	---	---	---	---	0	---	None	High	High
994: Dune Land-----	---	---	---	---	0	---	None	Low	Low
995: Dune Land-----	---	---	---	---	0	---	None	Low	Low
Goldrun-----	---	---	---	---	0	---	Low	High	Low
Davey-----	40-60	Duripan	4-17	Moderately cemented	0	---	Low	High	Low
998: Dumps-----	---	---	---	---	0	---	None	---	---
Pits-----	0-0	Bedrock (lithic)	---	Indurated	0	---	None	---	---
999: Slickens-----	---	---	---	---	0	---	None	High	High
1004: Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Davey-----	40-60	Duripan	4-17	Moderately cemented	0	---	Low	High	Low
1005: Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
1007: Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Puett-----	10-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1010: Bartome-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Chiara-----	10-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
1020: Wholan-----	---	---	---	---	0	---	Low	High	Low
1023: Wholan-----	---	---	---	---	0	---	Low	High	Low
Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Enko-----	---	---	---	---	0	---	Moderate	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
1077: Hoot-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
1078: Hoot-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Genaw-----	14-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
1090: Soolake-----	---	---	---	---	0	---	Low	High	Moderate
Argenta-----	---	---	---	---	0	---	High	High	High
1100: Wendane-----	---	---	---	---	0	---	High	High	High
1101: Wendane-----	---	---	---	---	0	---	High	High	High
1102: Wendane-----	---	---	---	---	0	---	High	High	High
Wendane-----	---	---	---	---	0	---	High	High	High
1104: Wendane-----	---	---	---	---	0	---	High	High	High
Sonoma-----	---	---	---	---	0	---	High	High	Low
1110: Theon-----	8-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1120: Relley-----	---	---	---	---	0	---	Low	High	Moderate
Kelk-----	---	---	---	---	0	---	Moderate	High	Low
1140: Layview-----	10-14	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Layview-----	10-14	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1142: Layview-----	10-14	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Udelope-----	8-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Moderate
1150: Cotant-----	12-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Low	Moderate	Low
Say-----	20-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Cotant-----	12-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Low	Moderate	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
					In	In			
1151: Cotant-----	12-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Low	Moderate	Low
Say-----	20-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Gol-----	14-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
1160: Hawsley-----	---	---	---	---	0	---	Low	High	Low
1161: Hawsley-----	---	---	---	---	0	---	Low	High	Low
Isolde-----	---	---	---	---	0	---	Low	High	Low
1162: Hawsley-----	---	---	---	---	0	---	Low	High	Low
Davey-----	---	---	---	---	0	---	Low	High	Low
Mazuma-----	---	---	---	---	0	---	Low	High	High
1167: Hawsley-----	---	---	---	---	0	---	Low	High	Low
1168: Hawsley-----	---	---	---	---	0	---	Low	High	Low
Davey-----	---	---	---	---	0	---	Low	High	Low
Essal-----	---	---	---	---	0	---	Low	High	Moderate
1169: Hawsley-----	---	---	---	---	0	---	Low	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
1170: Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Bliss-----	20-36	Duripan	---	Moderately cemented	0	---	Moderate	High	Low
Trunk-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1171: Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Dugchip-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Moderate
Orovada-----	---	---	---	---	0	---	Moderate	High	Low
1172: Flue-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	High
Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
McConnel-----	---	---	---	---	0	---	Low	High	Moderate
1173: Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
					In	In			
1174: Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Zevadez-----	---	---	---	---	0	---	Moderate	High	Low
Enko-----	---	---	---	---	0	---	Moderate	High	Low
1175: Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Goosel-----	20-36 21-40	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Connel-----	---	---	---	---	0	---	Moderate	High	High
1176: Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Dacker-----	20-35	Duripan	4-17	Indurated	0	---	Moderate	High	Low
1180: Roccoonda-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Hoot-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1181: Roccoonda-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Hoot-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
1184: Roccoonda-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
1185: Roccoonda-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Quomus-----	---	---	---	---	---	---	Moderate	High	Low
Atlow-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
1186: Roccoonda-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Midraw-----	14-20 22-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
1187: Roccoonda-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Hoot-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
1188: Rocconda-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Rocconda-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1189: Rocconda-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
1192: Enko-----	---	---	---	---	0	---	Moderate	High	Low
1194: Enko-----	---	---	---	---	0	---	Moderate	High	Low
1200: Erakatak-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Madeline-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1201: Erakatak-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low
1202: Erakatak-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Bullump-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
1210: Cresal-----	---	---	---	---	0	---	Low	High	High
Playas-----	---	---	---	---	0	---	None	High	High
1211: Cresal-----	---	---	---	---	0	---	Low	High	High
1212: Cresal-----	---	---	---	---	0	---	Low	High	High
Tresed-----	---	---	---	---	0	---	Low	High	High
Playas-----	---	---	---	---	0	---	None	High	High
1221: Alyan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Bilbo-----	---	---	---	---	0	---	Low	High	Low
1230: Knott-----	10-20	Duripan	4-17	Indurated	0	---	Low	High	Low
Sodhouse-----	14-20	Duripan	4-17	Indurated	0	---	Low	High	Low
Wholan-----	---	---	---	---	0	---	Low	High	Low
1240: Laped-----	14-20 20-30	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
1241: Laped-----	14-20 20-30	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
Boger-----	14-20 18-30	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Moderate	High	Low
1255: Dutchjohn-----	40-60	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Bregar-----	5-12	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1260: Weso-----	---	---	---	---	0	---	Low	High	Low
Trocken-----	---	---	---	---	0	---	Low	High	High
1271: Gol-----	14-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Say-----	20-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
1285: Igdell-----	20-40	Duripan	4-17	Indurated	0	---	Low	High	Low
Gochea-----	---	---	---	---	0	---	Moderate	Moderate	Low
1291: Tresed-----	---	---	---	---	0	---	Low	High	High
Isolde-----	---	---	---	---	0	---	Low	High	Low
1292: Tresed-----	---	---	---	---	0	---	Low	High	High
1310: Dewar-----	14-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Tenabo-----	9-20	Duripan	4-17	Indurated	0	---	Low	High	Moderate
1312: Dewar-----	14-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Dacker-----	20-35	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Dewar-----	14-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
1313: Dewar-----	14-20	Duripan	4-17	Moderately cemented	0	---	Moderate	High	Low
Sodhouse-----	14-20	Duripan	4-17	Indurated	0	---	Low	High	Low
Midraw-----	14-20 20-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
1314: Dewar-----	14-20	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Zevadez-----	---	---	---	---	0	---	Moderate	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
1334: Siscab-----	6-14	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Eaglerock-----	20-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
1335: Siscab-----	6-14	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Westbutte-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
1341: Longcreek-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Menbo-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
1342: Longcreek-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
1344: Longcreek-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Softscrabble----	---	---	---	---	0	---	Moderate	Moderate	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1345: Longcreek-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Zymans-----	40-60	Bedrock (paralithic)	---	Moderately cemented	0	---	Low	High	Low
1360: Midraw-----	14-20 22-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
Midraw-----	14-20 22-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
1362: Midraw-----	14-20 22-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
Midraw-----	14-20 20-35	Duripan Bedrock (lithic)	4-17	Indurated	0	---	Low	High	Low
Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
1371: Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
1373: Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Zymans-----	40-60	Bedrock (paralithic)	---	Moderately cemented	0	---	Low	High	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
1380: Genaw-----	14-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Rocconda-----	4-14	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1381: Genaw-----	14-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
Trunk-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
1382: Genaw-----	14-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
Puett-----	10-20	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
1390: Mulhop-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Xine-----	20-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
Rock Outcrop---	---	---	---	---	---	---	---	---	---
1400: Madeline-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
1410: Say-----	20-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Tosp-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Moderate
Aycab-----	24-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
1411: Say-----	20-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low
Aycab-----	24-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	Moderate	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
1420: Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1421: Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Davey-----	---	---	---	---	0	---	Low	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
1423: Panlee-----	40-59 41-60	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Moderate	High	Low
Vanwyper-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Carstump-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
1431: Hunnton-----	20-40	Duripan	4-17	Indurated	0	---	Moderate	High	Low
Rodock-----	---	---	---	---	0	---	Moderate	High	Low
1432: Rodock-----	---	---	---	---	0	---	Moderate	High	Low
Connel-----	---	---	---	---	0	---	Moderate	High	High
1433: Rodock-----	---	---	---	---	0	---	Moderate	High	Low
1436: Rodock-----	---	---	---	---	0	---	Moderate	High	Low
1437: Rodock-----	---	---	---	---	0	---	Moderate	High	Low
1450: Wiskan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Climine-----	---	---	---	---	0	---	Moderate	Moderate	Low
1460: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Reluctan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1461: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Alyan-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
1462: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1464: Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1465: Cleavage-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1466: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Bullump-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1467: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Udelope-----	8-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Moderate
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1468: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Softscrabble---	---	---	---	---	0	---	Moderate	Moderate	Low
Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
1469: Ninemile-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Softscrabble---	---	---	---	---	0	---	Moderate	Moderate	Low
Sumine-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1470: Zymans-----	40-60	Bedrock (paralithic)	---	Moderately cemented	0	---	Low	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
1471: Zymans-----	40-60	Bedrock (paralithic)	---	Moderately cemented	0	---	Low	High	Low
Burrita-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Soughe-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low

TABLE 16.--SOIL FEATURES--Continued

Map symbol and soil name	Restrictions				Subsidence		Potential frost action	Risk of corrosion	
	Depth	Kind	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
	In		In		In	In			
1522: Croesus-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Harcany-----	---	---	---	---	0	---	Moderate	Moderate	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
1523: Croesus-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Udelope-----	8-20	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Moderate
Layview-----	10-14	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1524: Croesus-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	High	Low
Spinlin-----	30-40	Bedrock (paralithic)	---	Moderately cemented	0	---	Moderate	High	Low
1530: Westbutte-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1540: Locane-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
1551: Charwell-----	20-30 21-40	Duripan Bedrock (lithic)	0-3	Indurated	0	---	Low	High	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
Anawalt-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	High	Low
1560: Menbo-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Rock Outcrop----	---	---	---	---	---	---	---	---	---
1561: Menbo-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Madeline-----	10-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Tusel-----	40-60	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
1562: Devada-----	12-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
Menbo-----	20-40	Bedrock (lithic)	---	Indurated	0	---	Moderate	Moderate	Low
Longcreek-----	14-20	Bedrock (lithic)	---	Indurated	0	---	Low	Moderate	Low
1570: Delvada-----	---	---	---	---	0	---	High	High	Low
1572: Delvada-----	---	---	---	---	0	---	High	High	High
1579: Delvada-----	---	---	---	---	0	---	High	High	Low
1580: Isolde-----	---	---	---	---	0	---	Low	High	Low
Essal-----	---	---	---	---	0	---	Low	High	Moderate
Essal-----	---	---	---	---	0	---	Low	High	Moderate

TABLE 17.--CLASSIFICATION OF THE SOILS

(An asterisk in the first column indicates that the soil is 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
Acrelane	Aridic Argixerolls, loamy-skeletal, mixed, mesic, shallow
Adelaide	Entic Durorthids, loamy, mixed, mesic, shallow
Alyan	Aridic Argixerolls, fine, montmorillonitic, frigid
Anawalt	Lithic Xerollic Haplargids, clayey, montmorillonitic, frigid
Argenta	Aeric Halaquepts, coarse-loamy, mixed (calcareous), mesic
Atlow	Lithic Xerollic Haplargids, loamy-skeletal, mixed, mesic
Aycab	Pachic Cryoborolls, coarse-loamy, mixed
Barnard	Aridic Durixerolls, fine, montmorillonitic, mesic
Bartome	Xerollic Durargids, loamy, mixed, mesic, shallow
Batan	Durorthidic Torriorthents, fine-silty, mixed (calcareous), mesic
Beeox	Duric Natrargids, fine, montmorillonitic, mesic
Benin	Typic Torriorthents, fine, montmorillonitic (calcareous), mesic
Beoska	Duric Natrargids, fine-loamy, mixed, mesic
Bilbo	Xerollic Haplargids, clayey-skeletal, montmorillonitic, mesic
Blackhawk	Entic Durorthids, loamy, mixed, mesic, shallow
Bliss	Haploxerollic Durorthids, coarse-loamy, mixed, mesic
Bloor	Durixerollic Natrargids, fine-silty, mixed, mesic
Bluewing	Typic Torriorthents, sandy-skeletal, mixed, mesic
Bogier	Xerollic Durorthids, loamy-skeletal, mixed, mesic, shallow
Boton	Durorthidic Torriorthents, fine-silty, mixed (calcareous), mesic
Bregar	Lithic Xerollic Haplargids, loamy-skeletal, mixed, frigid
Broyles	Duric Camborthids, coarse-loamy, mixed, mesic
Bubus	Durorthidic Torriorthents, coarse-loamy, mixed (calcareous), mesic
Bullump	Pachic Argixerolls, loamy-skeletal, mixed, frigid
Burrita	Lithic Xerollic Haplargids, clayey-skeletal, montmorillonitic, mesic
Carstump	Aridic Calcic Argixerolls, clayey-skeletal, montmorillonitic, frigid
Charwell	Abruptic Aridic Durixerolls, very-fine, montmorillonitic, frigid
Chiara	Xerollic Durorthids, loamy, mixed, mesic, shallow
Cleavage	Lithic Argixerolls, loamy-skeletal, mixed, frigid
Clementine	Cumulic Endoaquolls, fine-silty, mixed, mesic
Climine	Pachic Haploxerolls, loamy-skeletal, mixed, frigid
Clurde	Durixerollic Camborthids, fine-loamy, mixed, mesic
Connel	Durixerollic Camborthids, coarse-loamy over sandy or sandy-skeletal, mixed, mesic
Cotant	Aridic Argixerolls, clayey, montmorillonitic, frigid, shallow
Cresal	Durorthidic Torriorthents, coarse-silty, mixed (calcareous), mesic
Croesus	Pachic Cryoborolls, loamy-skeletal, mixed
Dacker	Xerollic Durargids, fine-loamy, mixed, mesic
Davey	Xerollic Camborthids, sandy, mixed, mesic
Delvada	Cumulic Endoaquolls, fine, montmorillonitic (calcareous), mesic
Devada	Lithic Argixerolls, clayey, montmorillonitic, mesic
Dewar	Xerollic Durargids, loamy, mixed, mesic, shallow
Dugchip	Xerollic Nadurargids, fine-loamy, mixed, mesic
Dun Glen	Typic Camborthids, coarse-loamy, mixed, mesic
Dutchjohn	Aridic Argixerolls, loamy-skeletal, mixed, frigid
Eaglerock	Aridic Argixerolls, loamy-skeletal, mixed, mesic
Enko	Durixerollic Camborthids, coarse-loamy, mixed, mesic
Erakatak	Typic Argixerolls, clayey-skeletal, montmorillonitic, frigid
Essal	Typic Torriorthents, coarse-loamy over sandy or sandy-skeletal, mixed (calcareous), mesic
Flue	Xerollic Nadurargids, fine, montmorillonitic, mesic
Genaw	Xerollic Haplargids, loamy, mixed, mesic, shallow
Gochea	Durargidic Argixerolls, fine-loamy, mixed, frigid
Gol	Xerollic Haplargids, loamy-skeletal, mixed, frigid, shallow
Golconda	Haplic Nadurargids, fine-loamy, mixed, mesic
Goldrun	Xeric Torripsamments, mixed, mesic
Golsun	Aridic Calcic Argixerolls, clayey-skeletal, montmorillonitic, frigid
Goosel	Xerollic Durargids, fine, montmorillonitic, mesic
Gosumi	Aridic Argixerolls, clayey-skeletal, montmorillonitic, frigid
Gowjai	Aridic Argixerolls, loamy-skeletal, mixed, frigid
Hackwood	Pachic Cryoborolls, fine-loamy, mixed

TABLE 17.--CLASSIFICATION OF THE SOILS--Continued

Soil name	Family or higher taxonomic class
Harcany-----	Pachic Cryoborolls, loamy-skeletal, mixed
Havingdon-----	Xerollic Haplargids, clayey-skeletal, montmorillonitic, mesic
Hawsley-----	Typic Torripsamments, mixed, mesic
Hoot-----	Lithic Haplargids, loamy-skeletal, mixed, mesic
Humboldt-----	Fluvaquentic Endoaquolls, fine, montmorillonitic (calcareous), mesic
Hunnton-----	Xerollic Durargids, fine, montmorillonitic, mesic
Igdell-----	Abruptic Aridic Durixerolls, fine, montmorillonitic, frigid
Isolde-----	Typic Torripsamments, mixed, mesic
Kelk-----	Durixerollic Camborthids, fine-silty, mixed, mesic
Kingsriver-----	Cumulic Endoaquolls, coarse-loamy, mixed, mesic
Kleck-----	Xerollic Camborthids, loamy, mixed, mesic, shallow
Knott-----	Typic Nadurargids, clayey, montmorillonitic, mesic, shallow
Kortty-----	Duric Haplargids, fine-loamy, mixed, mesic
Laped-----	Typic Durargids, loamy, mixed, mesic, shallow
Layview-----	Argic Lithic Cryoborolls, loamy-skeletal, mixed
Linrose-----	Aridic Haploxerolls, loamy-skeletal, mixed, frigid
Locane-----	Lithic Xerollic Haplargids, clayey-skeletal, montmorillonitic, frigid
Longcreek-----	Lithic Argixerolls, clayey-skeletal, montmorillonitic, mesic
Lunder-----	Abruptic Aridic Durixerolls, clayey, montmorillonitic, mesic, shallow
Madeline-----	Lithic Argixerolls, clayey, montmorillonitic, frigid
Mazuma-----	Typic Torriorthents, coarse-loamy, mixed (calcareous), mesic
McConnel-----	Xerollic Camborthids, sandy-skeletal, mixed, mesic
Menbo-----	Pachic Argixerolls, clayey-skeletal, montmorillonitic, frigid
Midraw-----	Xerollic Durargids, clayey, montmorillonitic, mesic, shallow
Mulhop-----	Lithic Xerollic Calciorthids, loamy-skeletal, mixed, frigid
Needle Peak-----	Oxyaquic Torriorthents, fine-silty, mixed (calcareous), mesic
Ninemile-----	Lithic Argixerolls, clayey, montmorillonitic, frigid
Nomara-----	Calcic Pachic Argixerolls, loamy-skeletal, mixed, frigid
Ola-----	Pachic Haploxerolls, coarse-loamy, mixed, frigid
Orovada-----	Durixerollic Camborthids, coarse-loamy, mixed, mesic
Oxcorel-----	Duric Natrargids, fine, montmorillonitic, mesic
Panlee-----	Xerollic Camborthids, loamy-skeletal, mixed, mesic
Paranat-----	Fluvaquentic Endoaquolls, fine-silty, mixed (calcareous), mesic
Piline-----	Xeric Epiaquerts, fine, montmorillonitic, mesic
Pocan-----	Xerollic Camborthids, fine-loamy, mixed, mesic
Preble-----	Oxyaquic Torriorthents, coarse-loamy, mixed (calcareous), mesic
Prideen-----	Aquic Durorthidic Torriorthents, fine-silty, mixed (calcareous), mesic
Puett-----	Xeric Torriorthents, loamy, mixed (calcareous), mesic, shallow
Puffer-----	Lithic Xeric Torriorthents, loamy-skeletal, mixed (calcareous), mesic
Pumper-----	Typic Camborthids, sandy-skeletal, mixed, mesic
Quomus-----	Aridic Duric Haploxerolls, coarse-loamy, mixed, frigid
Rad-----	Durixerollic Camborthids, coarse-silty, mixed, mesic
Raglan-----	Duric Camborthids, fine-loamy, mixed, mesic
Rebel-----	Xerollic Camborthids, coarse-loamy, mixed, mesic
Relley-----	Duric Camborthids, fine-silty, mixed, mesic
Reluctan-----	Aridic Argixerolls, fine-loamy, mixed, frigid
Rio King-----	Aridic Haploxerolls, coarse-loamy, mixed, mesic
Roca-----	Xerollic Haplargids, clayey-skeletal, montmorillonitic, frigid
Rocconda-----	Lithic Xerollic Haplargids, clayey-skeletal, montmorillonitic, mesic
Rodock-----	Aridic Duric Haploxerolls, loamy-skeletal, mixed, mesic
Rose Creek-----	Fluvaquentic Endoaquolls, coarse-loamy, mixed (calcareous), mesic
Say-----	Aridic Argixerolls, fine-loamy, mixed, frigid
Shabliss-----	Haploxerollic Durorthids, loamy, mixed, mesic, shallow
Siscab-----	Aridic Argixerolls, loamy, mixed, mesic, shallow
Snapp-----	Durixerollic Natrargids, clayey over sandy or sandy-skeletal, montmorillonitic, mesic
Snowmore-----	Xerollic Durargids, fine-loamy, mixed, mesic
Sodhouse-----	Typic Durorthids, loamy, mixed, mesic, shallow
Softscrabble-----	Pachic Argixerolls, loamy-skeletal, mixed, frigid
Sojur-----	Lithic Torriorthents, loamy-skeletal, mixed (calcareous), mesic
Sonoma-----	Aeric Fluvaquents, fine-silty, mixed (calcareous), mesic
Soolake-----	Typic Torriorthents, sandy, mixed, mesic
Soughe-----	Lithic Xerollic Haplargids, loamy-skeletal, mixed, mesic
Spinlin-----	Argic Cryoborolls, clayey-skeletal, montmorillonitic
Sumine-----	Aridic Argixerolls, loamy-skeletal, mixed, frigid

TABLE 17.--CLASSIFICATION OF THE SOILS--Continued

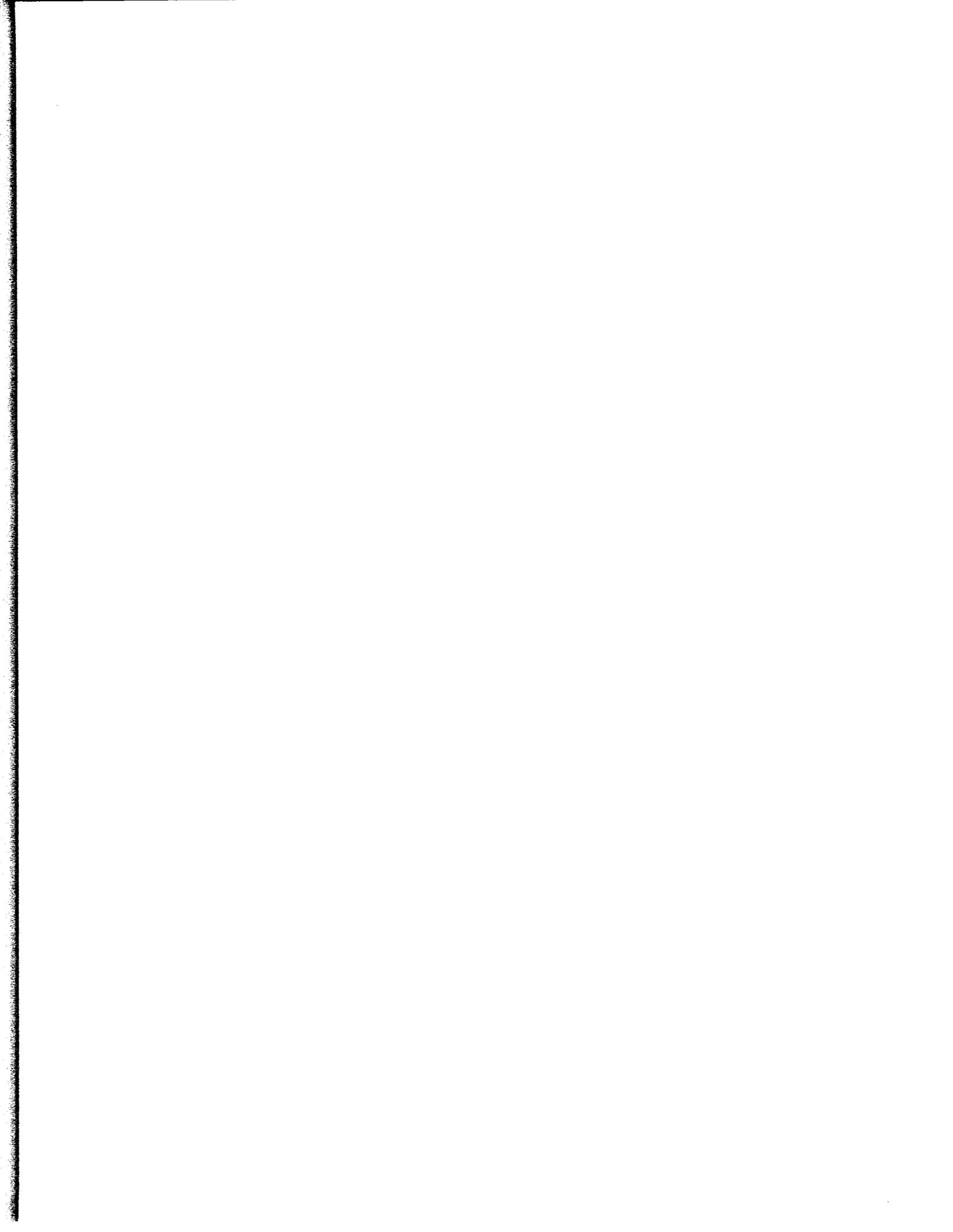
Soil name	Family or higher taxonomic class
Tenabo-----	Typic Nadurargids, loamy, mixed, mesic, shallow
Theon-----	Lithic Haplargids, loamy-skeletal, mixed, mesic
Tosp-----	Pachic Cryoborolls, coarse-loamy, mixed
Tresed-----	Typic Torriorthents, clayey over loamy, montmorillonitic (calcareous), mesic
Trocken-----	Typic Torriorthents, loamy-skeletal, mixed (calcareous), mesic
Trunk-----	Xerollic Haplargids, fine, montmorillonitic, mesic
Tusel-----	Argic Pachic Cryoborolls, loamy-skeletal, mixed
Tusk-----	Pachic Argixerolls, fine-loamy, mixed, frigid
Udelope-----	Lithic Cryoborolls, loamy, mixed
Valmy-----	Durorthidic Torriorthents, coarse-loamy, mixed (calcareous), mesic
Vanwyper-----	Xerollic Haplargids, clayey-skeletal, montmorillonitic, mesic
Walti-----	Aridic Argixerolls, fine, montmorillonitic, frigid
Wendane-----	Aeric Halaquepts, fine-silty, mixed (calcareous), mesic
Weso-----	Duric Camborthids, coarse-loamy, mixed, mesic
Westbutte-----	Pachic Haploxerolls, loamy-skeletal, mixed, frigid
Whirlo-----	Typic Camborthids, loamy-skeletal, mixed, mesic
Wholan-----	Typic Camborthids, coarse-silty, mixed, mesic
Wieland-----	Durixerollic Haplargids, fine, montmorillonitic, mesic
Wiskan-----	Xerollic Haplargids, loamy-skeletal, mixed, frigid
Xine-----	Aridic Calcixerolls, loamy-skeletal, mixed, frigid
Xipe-----	Fluvaquentic Endoaquolls, fine-silty over sandy or sandy-skeletal, mixed, mesic
Zevadez-----	Durixerollic Haplargids, fine-loamy, mixed, mesic
Zymans-----	Aridic Argixerolls, fine, montmorillonitic, mesic

SDA United States
Department of
Agriculture

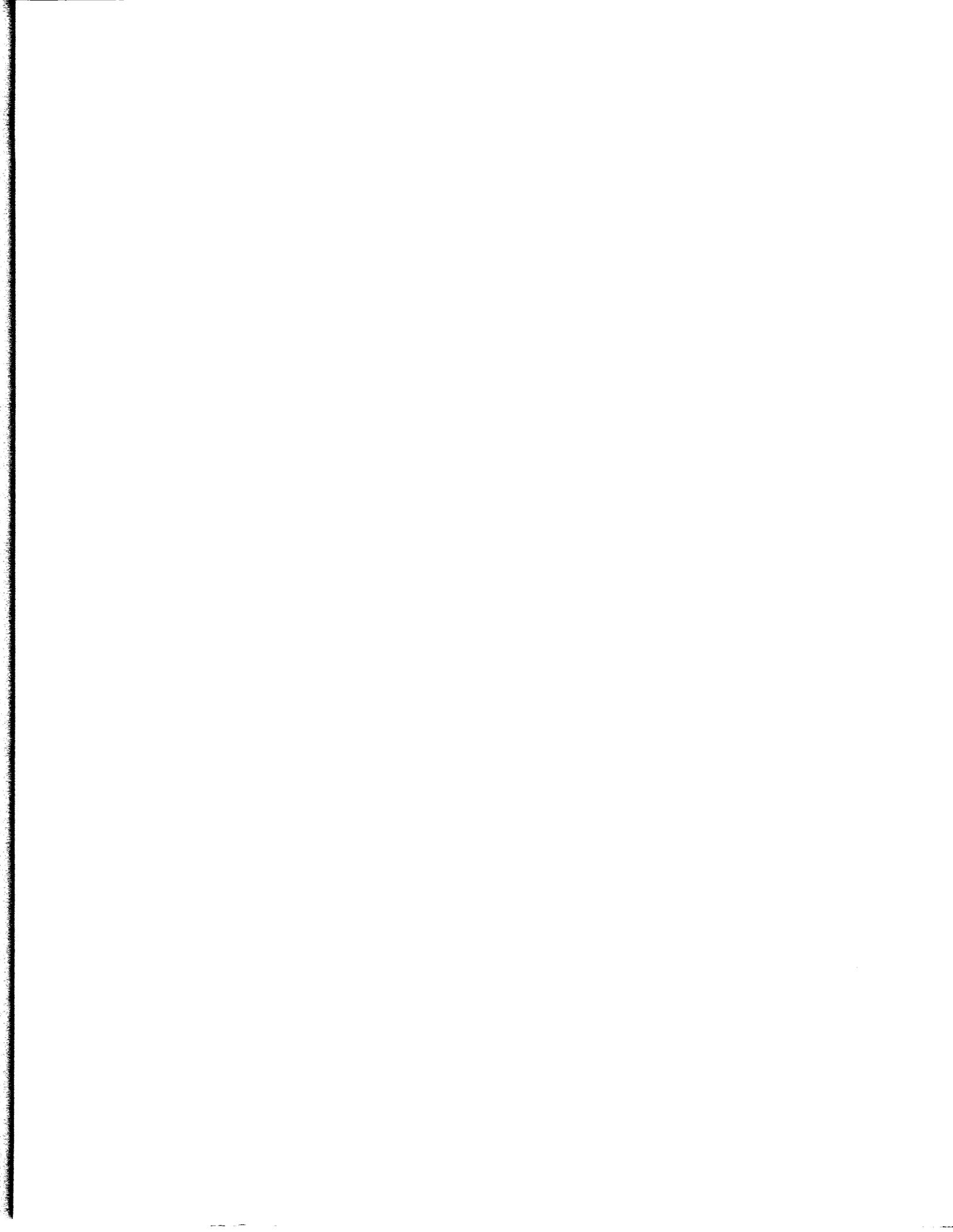
Natural
Resources
Conservation
Service

In cooperation with
United States
Department of
Agriculture, Forest
Service; United States
Department of
Interior, Bureau of Land
Management and
Bureau of Indian Affairs;
and University of
Nevada Agricultural
Experiment Station

Soil Survey of Humboldt County, Nevada, East Part Part II (vol 2)



RANGELAND PLANTS AND WOODLAND UNDERSTORY



100--ANAWALT-VANWYPER-ALYAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ANAWALT	VANWYPER	ALYAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	---	---	2-5	---	---	---
Idaho fescue	FEID	---	---	30-40	2-10	---	---	---
Nevada bluegrass	PONE3	---	---	2-5	2-5	---	---	5-10
Sandberg bluegrass	POSE	2-8	---	---	---	2-5	---	---
Thurber needlegrass	STTH2	15-30	5-15	---	---	15-25	---	---
Webber ricegrass	STWE	2-8	---	---	---	---	---	---
basin wildrye	ELCI2	---	2-5	2-10	---	---	---	60-70
bluebunch wheatgrass	AGSP	20-40	60-80	15-30	2-5	25-40	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
mountain brome	BRCA5	---	---	---	5-15	---	---	---
slender wheatgrass	AGTR	---	---	---	5-15	---	---	---
spike-fescue	LEKI2	---	---	---	2-10	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	---	2-5	---	---	---	---
carrotleaf lomatium	LODIM	---	---	---	2-5	---	---	---
geranium	GERAN	---	---	---	2-5	---	---	---
groundsel	SENEC	---	---	---	2-5	---	---	---
tapertip hawkbeard	CRAC2	---	---	2-5	---	---	---	---
Utah serviceberry	AMUT	---	---	---	1-5	---	---	---
Wyoming big sagebrush	ARTRW	---	5-15	---	---	15-25	---	---
antelope bitterbrush	PUTR2	---	1-5	5-10	1-5	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
common chokecherry	PRVI	---	---	---	1-5	---	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	10-20	5-15	---	---	---
sagebrush	ARTEM	20-30	---	---	---	---	---	---
snowberry	SYMPH	---	---	---	2-15	---	---	---
Range site number		025XY018NV	025XY015NV	025XY012NV	025XY004NV	025XY019NV	none	025XY003NV
Potential production (lb/acre):								
Favorable years		800	1000	1400	2800	800		4500
Normal years		600	700	1000	1800	600		3500
Unfavorable years		400	500	700	1200	400		2000

101--ANAWALT-NINEMILE-ALYAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ANAWALT	NINEMILE	ALYAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Idaho fescue	FEID	---	30-50	---	40-60	---	---	---
Nevada bluegrass	PONE3	---	---	---	2-8	---	---	5-10
Sandberg bluegrass	POSE	2-8	---	---	---	---	2-5	---
Thurber needlegrass	STTH2	15-30	---	10-20	---	---	15-25	---
Webber ricegrass	STWE	2-8	---	---	---	---	---	---
basin wildrye	ELCI2	---	---	2-8	2-8	---	---	60-70
bluebunch wheatgrass	AGSP	20-40	15-30	20-35	5-15	---	25-40	---
bluegrass	POA++	---	2-10	2-10	---	---	---	2-8
mat muhly	MURI	---	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	15-25	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
antelope bitterbrush	PUTR2	---	2-5	2-8	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	10-20	---	---	5-10
big sagebrush	ARTR2	---	---	10-15	---	---	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
sagebrush	ARTEM	20-30	---	---	---	---	---	---

Range site number	025XY010NV	025XY017NV	025XY014NV	025XY027NV	none	025XY019NV	025XY003NV
Potential production (lb/acre):							
Favorable years	800	900	1000	1300		800	4500
Normal years	600	700	800	900		600	3500
Unfavorable years	400	400	600	500		400	2000

102--ANAWALT-NINEMILE-TUSK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ANAWALT	NINEMILE	TUSK	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	---	30-50	30-40	---	---	---	---
Nevada bluegrass	PONE3	---	---	2-5	---	---	---	5-10
Sandberg bluegrass	POSE	2-8	---	---	---	---	---	---
Thurber needlegrass	STTH2	15-30	---	---	5-15	2-5	---	---
Webber ricegrass	STWE	2-8	---	---	---	---	---	---
basin wildrye	ELCI2	---	---	2-10	2-5	5-10	---	60-70
bluebunch wheatgrass	AGSP	20-40	15-30	15-30	60-80	30-50	---	---
bluegrass	POA++	---	2-10	---	---	---	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
mountain brome	BRCA5	---	---	---	---	2-15	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	---	2-5	---	2-5	---	---
lupine	LUPIN	---	---	---	---	2-5	---	---
tapertip hawkbeard	CRAC2	---	---	2-5	---	2-5	---	---
Wyoming big sagebrush	ARTRW	---	---	---	5-15	---	---	---
antelope bitterbrush	PUTR2	---	2-5	5-10	1-5	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	10-20	---	10-20	---	---
sagebrush	ARTEM	20-30	---	---	---	---	---	---

Range site number	025XY018NV	025XY017NV	025XY012NV	025XY015NV	024XY029NV	none	025XY003NV
Potential production (lb/acre):							
Favorable years	800	900	1400	1000	1500		4500
Normal years	600	700	1000	700	1100		3500
Unfavorable years	400	400	700	500	800		2000

106--ANAWALT-NINEMILE-ALYAN ASSOCIATION, COOL

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ANAWALT	NINEMILE	ALYAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	5-10	2-8	2-5	2-8	---	---	---
Cusick bluegrass	POCU3	---	---	---	2-8	---	---	---
Idaho fescue	FEID	---	30-40	---	30-40	---	---	---
Sandberg bluegrass	POSE	5-10	2-8	---	---	30-45	---	---
Thurber needlegrass	STTH2	10-20	2-5	2-5	2-8	---	---	5-10
Webber ricegrass	STWE	---	---	---	---	2-5	---	---
basin wildrye	ELCI2	---	2-5	10-20	5-15	---	---	2-10
bluebunch wheatgrass	AGSP	20-50	20-30	20-40	15-35	---	---	50-70
bluegrass	POA++	5-10	2-8	---	2-8	---	---	---
antelope bitterbrush	PUTR2	---	---	2-10	2-10	---	---	2-5
low sagebrush	ARAR8	10-20	10-20	---	---	30-45	---	---
mountain big sagebrush	ARVA2	---	---	5-15	10-20	---	---	5-15

Range site number	023XY031NV	023XY017NV	023XY041NV	023XY007NV	023XY021NV	none	023XY016NV
Potential production (lb/acre):							
Favorable years	900	900	1400	1600	300		1500
Normal years	700	700	1200	1200	200		1100
Unfavorable years	500	500	900	900	150		800

107--ANAWALT-NINEMILE-TUSK ASSOCIATION, COOL

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ANAWALT	NINEMILE	TUSK	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	5-10	2-8	2-8	---	---	---	---
Cusick bluegrass	POCU3	---	---	2-8	---	---	---	---
Idaho fescue	FEID	---	30-40	30-40	---	---	2-10	---
Letterman needlegrass	STLE4	---	---	---	---	---	2-5	---
Nevada bluegrass	PONE3	---	---	---	---	---	2-5	2-8
Sandberg bluegrass	POSE	5-10	2-8	---	---	---	---	---
Thurber needlegrass	STTH2	10-20	2-5	2-8	5-15	---	---	---
basin wildrye	ELCI2	---	2-5	5-15	2-5	---	---	65-75
blue wildrye	ELGL	---	---	---	---	---	2-5	---
bluebunch wheatgrass	AGSP	20-50	20-30	15-35	40-60	---	2-5	---
bluegrass	POA++	5-10	2-8	2-8	2-8	---	---	---
mountain brome	BRCA5	---	---	---	---	---	5-15	---
purple oniongrass	MESP	---	---	---	---	---	2-5	---
slender wheatgrass	AGTR	---	---	---	---	---	5-15	---
arrowleaf balsamroot	BASA3	---	---	---	2-5	---	---	---
carrotleaf lomatium	LODIM	---	---	---	---	---	2-5	---
clover	TRIFO	---	---	---	---	---	2-5	---
geranium	GERAN	---	---	---	---	---	2-10	---
groundsel	SENEC	---	---	---	---	---	2-10	---
horsemint giant hyssop	AGUR	---	---	---	---	---	2-5	---
tapertip hawksbeard	CRAC2	---	---	---	2-5	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
antelope bitterbrush	PUTR2	---	---	2-10	---	---	2-5	---
basin big sagebrush	ARTRT*	---	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	---	15-25	---	---	---
common chokecherry	PRVI	---	---	---	---	---	2-5	---
elderberry	SAMBU	---	---	---	---	---	2-5	---
low sagebrush	ARAR8	10-20	10-20	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	10-20	---	---	---	---
quaking aspen	POTRT	---	---	---	---	---	2-5	---
rubber rabbitbrush	CHNA2	---	---	---	---	---	---	1-3
snowberry	SYMPH	---	---	---	---	---	2-10	---

Range site number	023XY031NV	023XY017NV	023XY007NV	024XY028NV	none	023XY065NV	023XY009NV
Potential production (lb/acre):							
Favorable years	900	900	1600	1000		2600	5500
Normal years	700	700	1200	700		1800	4500
Unfavorable years	500	500	900	500		1400	2500

108--ANAWALT-NINEMILE-ALYAN ASSOCIATION, STEEP

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ANAWALT	NINEMILE	ALYAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	5-10	2-8	2-5	---	---	5-10	---
Cusick bluegrass	POCU3	---	---	---	---	---	5-10	---
Idaho fescue	FEID	---	30-40	---	---	---	5-10	---
Sandberg bluegrass	POSE	5-10	2-8	---	30-45	---	---	---
Thurber needlegrass	STTH2	10-20	2-5	2-5	---	10-20	2-10	---
Webber ricegrass	STWE	---	---	---	2-5	---	---	---
basin wildrye	ELCI2	---	2-5	10-20	---	2-10	5-10	---
bluebunch wheatgrass	AGSP	20-50	20-30	20-40	---	40-60	20-35	---
bluegrass	POA++	5-10	2-8	---	---	---	5-10	---
needlegrass	STIPA	---	---	---	---	---	2-10	---
western needlegrass	STOC2	---	---	---	---	---	2-10	---
Wyoming big sagebrush	ARTRW*	---	---	---	---	10-20	---	---
antelope bitterbrush	PUTR2	---	---	2-10	---	2-5	15-25	---
big sagebrush	ARTR2	---	---	---	---	10-20	---	---
low sagebrush	ARAR8	10-20	10-20	---	30-45	---	---	---
mountain big sagebrush	ARVA2	---	---	5-15	---	10-20	5-15	---

Range site number	023XY031NV	023XY017NV	023XY041NV	023XY021NV	023XY039NV	023XY015NV	none
Potential production (lb/acre):							
Favorable years	900	900	1400	300	900	1500	
Normal years	700	700	1200	200	700	1200	
Unfavorable years	500	500	900	150	500	900	

110--ADELAIDE SILT LOAM, 2 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		ADELAIDE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15	---
Sandberg bluegrass	POSE	2-8	---	---	---	---
Thurber needlegrass	STTH2	15-25	---	---	---	---
bluebunch wheatgrass	AGSP	---	---	---	---	40-50
bottlebrush squirreltail	SIHY	2-5	5-10	5-10	5-10	2-10
globemallow	SPHAE	1-2	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	---	---	---	1-3
bud sagebrush	ARSP5	---	20-30	20-30	20-30	25-35
shadscale	ATCO	---	30-40	30-40	30-40	---
spiny hopsage	GRSP	5-15	2-5	2-5	2-5	2-5
winterfat	EULA5	---	2-5	2-5	2-5	---

Range site number	024XY020NV	024XY002NV	024XY002NV	024XY002NV	024XY005NV
Potential production (lb/acre):					
Favorable years	700	750	750	750	800
Normal years	450	450	450	450	600
Unfavorable years	300	300	300	300	400

120--BREGAR-TUSK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BREGAR	TUSK	BREGAR	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Idaho fescue	FEID	---	30-40	15-25	2-5	---	---	---
Nevada bluegrass	PONE3	---	2-5	---	2-5	---	5-10	5-10
Sandberg bluegrass	POSE	2-8	---	2-8	---	---	---	---
Thurber needlegrass	STTH2	15-30	---	2-8	2-8	10-20	---	---
Webber ricegrass	STWE	2-8	---	---	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	---	5-10
basin wildrye	ELCI2	---	2-10	---	5-10	2-8	60-70	---
bluebunch wheatgrass	AGSP	20-40	15-30	10-20	30-50	20-35	---	---
bluegrass	POA++	---	---	---	---	2-10	---	---
mat muhly	MURI	---	---	---	---	---	2-8	---
sedge	CAREX	---	---	---	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-60
Sierra clover	TRWO	---	---	---	---	---	---	2-5
arrowleaf balsamroot	BASA3	---	2-5	---	---	---	---	---
cinquefoil	POTEN	---	---	---	---	---	---	2-5
tapertip hawksbeard	CRAC2	---	2-5	---	---	---	---	---
Douglas rabbitbrush	CHVI8	---	---	2-5	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
antelope bitterbrush	PUTR2	---	5-10	5-10	2-10	2-8	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10	---
big sagebrush	ARTR2	---	---	---	---	10-15	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	25-35	---	---	---	---
mountain big sagebrush	ARVA2	---	10-20	---	5-15	---	---	---
sagebrush	ARTEM	20-30	---	---	---	---	---	---

Range site number	025XY018NV	025XY012NV	025XY051NV	025XY009NV	025XY014NV	025XY003NV	025XY005NV
Potential production (lb/acre):							
Favorable years	800	1400	500	1300	1000	4500	3000
Normal years	600	1000	300	900	800	3500	1700
Unfavorable years	400	700	200	700	600	2000	1000

122--BREGAR-TUSEL-CLEAVAGE ASSOCIATION

[An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BREGAR	TUSEL	CLEAVAGE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	2-5	---	5-15	---	2-8	---
Idaho fescue	FEID	15-30	2-10	30-50	25-40	---	---	X
Letterman needlegrass	STLE4	---	---	---	---	40-60	2-5	---
Nevada bluegrass	PONE3	---	2-5	---	2-8	---	---	X
bluebunch wheatgrass	AGSP	---	2-5	15-30	5-15	---	---	---
bluegrass	POA++	5-15	---	2-10	---	---	---	---
mountain brome	BRCA5	---	5-15	---	5-15	---	5-10	X
rush	JUNCU	---	---	---	---	---	---	X
sedge	CAREX	---	---	---	---	---	---	X
slender wheatgrass	AGTR	---	5-15	---	5-15	---	5-10	X
spike-fescue	LEKI2	---	2-10	---	---	---	---	---
arrowleaf balsamroot	BASA3	---	---	---	2-5	---	---	---
carrotleaf lomatium	LODIM	---	2-5	---	---	---	---	---
geranium	GERAN	---	2-5	---	---	---	---	---
goldenweed	HAPLO2	2-5	---	---	---	---	---	---
groundsel	SENEC	---	2-5	---	---	---	---	X
lupine	LUPIN	---	---	---	2-5	---	---	---
tailcup lupine	LUCA	---	---	---	---	20-40	---	---
tapertip hawksbeard	CRAC2	---	---	---	2-5	---	---	---
yarrow	ACHIL	---	---	---	---	---	---	X
Utah serviceberry	AMUT	---	1-5	---	---	---	---	---
Woods rose	ROWO	---	---	---	---	---	---	X
antelope bitterbrush	PUTR2	---	1-5	2-5	2-8	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
common chokecherry	PRVI	---	1-5	---	---	---	---	---
low sagebrush	ARAR8	---	---	15-25	---	---	---	---
mountain big sagebrush	ARVA2	---	5-15	---	10-15	---	---	---
quaking aspen	POTR5	---	---	---	---	---	50-60	---
sagebrush	ARTEM	30-35	---	---	---	---	---	---
snowberry	SYMPH	---	2-15	---	2-5	---	---	---
willow	SALIX	---	---	---	---	---	1-8	---
quaking aspen	POTRT	---	---	---	---	---	---	X

Range site number 025XY024NV 025XY004NV 025XY017NV 025XY056NV 025XY028NV 025XY002NV 025XY064NV

Potential production (lb/acre):

Favorable years	400	2800	900	1500	1700	1800	1600
Normal years	275	1800	700	1100	1400	1300	1300
Unfavorable years	150	1200	400	700	1100	900	1000

131--BENIN SILT LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		BENIN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	---	30-40
basin wildrye	ELCI2	---	---	2-8
bottlebrush squirreltail	SIHY	5-10	5-10	---
needleandthread	STCO4	---	---	5-15
thickspike wheatgrass	AGDA	---	---	5-10
canagire	RUHY	---	---	1-3
lemon scurfpea	PSLA	---	---	1-3
tufted eveningprimrose	OECE2	---	---	1-3
basin big sagebrush	ARTRT	---	---	25-30
black greasewood	SAVE4	---	15-30	---
bud sagebrush	ARSP5	20-30	2-8	---
fourwing saltbush	ATCA2	---	---	2-8
seepweed	SUAED	---	2-8	---
shadscale	ATCO	30-40	30-50	---
spiny hopsage	GRSP	2-5	---	2-8
winterfat	EULA5	2-5	---	---

Range site number	024XY002NV	024XY003NV	024XY001NV
Potential production (lb/acre):			
Favorable years	750	600	800
Normal years	450	450	500
Unfavorable years	300	300	300

133--BENIN SILT LOAM, SODIC

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BENIN	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	2-5	---
basin wildrye	ELCI2	---	---	5-20	---
bottlebrush squirreltail	SIHY	5-10	5-10	2-5	---
globemallow	SPHAE	---	---	1-2	---
thelypody	THELY	---	---	2-4	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	---	10-25	---
black greasewood	SAVE4	15-30	15-30	20-30	---
bud sagebrush	ARSP5	2-8	2-8	---	---
seepweed	SUAED	2-8	2-8	---	---
shadscale	ATCO	30-50	30-50	---	---
spiny hopsage	GRSP	---	---	5-15	---
Range site number		024XY003NV	024XY003NV	024XY022NV	none
Potential production (lb/acre):					
Favorable years		600	600	800	
Normal years		450	450	600	
Unfavorable years		300	300	350	

141--BEOSKA-BLUEWING ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BEOSKA	BLUEWING	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	10-20	10-20	15-30	2-10	5-15
Sandberg bluegrass	POSE	5-10	5-10	2-15	2-5	---
basin wildrye	ELCI2	---	---	---	10-20	---
bottlebrush squirreltail	SIHY	2-8	2-8	2-8	2-5	5-10
Anderson peachbrush	PRAN2	---	---	---	2-8	---
Bailey greasewood	SAVEB	15-30	15-30	---	---	---
basin big sagebrush	ARTRT	---	---	---	15-25	---
black greasewood	SAVE4	---	---	---	2-8	---
bud sagebrush	ARSP5	2-8	2-8	15-25	---	20-30
other shrubs	SSSS	---	---	---	2-8	---
shadscale	ATCO	15-30	15-30	20-35	---	30-40
spiny hopsage	GRSP	---	---	---	15-30	2-5
winterfat	EULA5	---	---	5-10	---	2-5
Range site number		027XY018NV	027XY018NV	027XY013NV	024XY041NV	024XY002NV
Potential production (lb/acre):						
Favorable years		400	400	600	1000	750
Normal years		250	250	450	800	450
Unfavorable years		100	100	250	600	300

143--BEOSKA-BROYLES ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BEOSKA	BROYLES	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	5-15	5-15	---
basin wildrye	ELCI2	---	---	---	---	5-15
bottlebrush squirreltail	SIHY	5-10	5-10	5-10	5-10	---
inland saltgrass	DISPS2	---	---	---	---	5-10
black greasewood	SAVE4	15-30	15-30	---	---	60-75
bud sagebrush	ARSP5	2-8	2-8	20-30	20-30	---
seepweed	SUAED	2-8	2-8	---	---	---
shadscale	ATCO	30-50	30-50	30-40	30-40	---
spiny hopsage	GRSP	---	---	2-5	2-5	---
winterfat	EULAS	---	---	2-5	2-5	---
Range site number		024XY003NV	024XY003NV	024XY002NV	024XY002NV	024XY011NV
Potential production (lb/acre):						
Favorable years		600	600	750	750	500
Normal years		450	450	450	450	350
Unfavorable years		300	300	300	300	200

144--BEOSKA-DUN GLEN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BEOSKA	DUN GLEN	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	---	5-15
bottlebrush squirreltail	SIHY	5-10	5-10	5-10	5-10	5-10
black greasewood	SAVE4	---	---	---	15-30	---
bud sagebrush	ARSP5	20-30	20-30	20-30	2-8	20-30
seepweed	SUAED	---	---	---	2-8	---
shadscale	ATCO	30-40	30-40	30-40	30-50	30-40
spiny hopsage	GRSP	2-5	2-5	2-5	---	2-5
winterfat	EULA5	2-5	2-5	2-5	---	2-5
Range site number		024XY002NV	024XY002NV	024XY002NV	024XY003NV	024XY002NV
Potential production (lb/acre):						
Favorable years		750	750	750	600	750
Normal years		450	450	450	450	450
Unfavorable years		300	300	300	300	300

151--BLACKHAWK SILT LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BLACKHAWK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STTH2	---	15-25	---	---
bottlebrush squirreltail	SIHY	5-10	2-5	5-10	5-10
globemallow	SPHAE	---	1-2	---	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---
bud sagebrush	ARSP5	20-30	---	20-30	20-30
shadscale	ATCO	30-40	---	30-40	30-40
spiny hopsage	GRSP	2-5	5-15	2-5	2-5
winterfat	EULAS	2-5	---	2-5	2-5
Range site number		024XY002NV	024XY020NV	024XY002NV	024XY002NV
Potential production (lb/acre):					
Favorable years		750	700	750	750
Normal years		450	450	450	450
Unfavorable years		300	300	300	300

152--BLACKHAWK SILT LOAM, 2 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BLACKHAWK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegress	STTH2	---	15-25	---	---
bottlebrush squirreltail	SIHY	5-10	2-5	5-10	5-10
globemallow	SPRAE	---	1-2	---	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---
bud sagebrush	ARSP5	20-30	---	20-30	20-30
shadscale	ATCO	30-40	---	30-40	30-40
spiny hopsage	GRSP	2-5	5-15	2-5	2-5
winterfat	EULAS	2-5	---	2-5	2-5
Range site number		024XY002NV	024XY020NV	024XY002NV	024XY002NV
Potential production (lb/acre):					
Favorable years		750	700	750	750
Normal years		450	450	450	450
Unfavorable years		300	300	300	300

155--BLACKHAWK LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BLACKHAWK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	---	15-30	---
Thurber needlegrass	STTH2	---	40-50	---	40-50
basin wildrye	ELCI2	---	---	5-10	---
bluebunch wheatgrass	AGSP	---	2-10	---	2-10
bottlebrush squirreltail	SIHY	5-10	---	---	---
needleandthread	STCO4	---	---	30-40	---
globemallow	SPHAE	---	1-3	---	1-3
Wyoming big sagebrush	ARTRW	---	25-35	---	25-35
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	---	15-25	---
bud sagebrush	ARSP5	20-30	---	---	---
shadscale	ATCO	30-40	---	---	---
spiny hopsage	GRSP	2-5	2-5	1-5	2-5
winterfat	EULA5	2-5	---	---	---
Range site number		024XY002NV	024XY005NV	024XY017NV	024XY005NV
Potential production (lb/acre):					
Favorable years		750	800	900	800
Normal years		450	600	700	600
Unfavorable years		300	400	500	400

156--BLACKHAWK-CLURDE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BLACKHAWK	CLURDE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	---	2-5	2-5	---
Sandberg bluegrass	POSE	---	2-8	---	---	---	---
Thurber needlegrass	STTH2	---	15-25	---	---	---	---
basin wildrye	ELCI2	---	---	---	5-20	5-20	55-65
bottlebrush squirreltail	SIHY	5-10	2-5	5-10	2-5	2-5	---
creeping wildrye	ELTR3	---	---	---	---	---	5-15
western wheatgrass	AGSM	---	---	---	---	---	5-15
globemallow	SPHAE	---	1-2	---	1-2	1-2	---
thelypody	THELY	---	---	---	2-4	2-4	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	10-15
big sagebrush	ARTR2	---	---	---	10-25	10-25	---
black greasewood	SAVE4	---	---	15-30	20-30	20-30	2-8
bud sagebrush	ARSP5	20-30	---	---	2-8	---	---
seepweed	SUAED	---	---	2-8	---	---	---
shadscale	ATCO	30-40	---	30-50	---	---	---
spiny hopsage	GRSP	2-5	5-15	---	5-15	5-15	---
winterfat	EULAS	2-5	---	---	---	---	---

Range site number	024XY002NV	024XY020NV	024XY003NV	024XY022NV	024XY022NV	024XY006NV
Potential production (lb/acre):	750	700	600	800	800	1500
Favorable years	450	450	450	600	600	1100
Normal years	300	300	300	350	350	600
Unfavorable years						

157--BLACKHAWK-BROYLES ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BLACKHAWK	BROYLES	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	5-15	15-25	5-15	5-15
Sandberg bluegrass	POSE	---	---	2-8	---	---	---
Thurber needlegrass	STTH2	---	---	15-25	---	---	---
bottlebrush squirreltail	SINY	5-10	5-10	2-5	2-8	5-10	5-10
globemallow	SPHAE	---	---	1-2	---	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35	---	---	---
bud sagebrush	ARSP5	20-30	20-30	---	2-5	20-30	20-30
shadscale	ATCO	30-40	30-40	---	---	30-40	30-40
spiny hopsage	GRSP	2-5	2-5	5-15	---	2-5	2-5
winterfat	EULA5	2-5	2-5	---	60-70	2-5	2-5

Range site number	024XY002NV	024XY002NV	024XY020NV	024XY004NV	024XY002NV	024XY002NV
Potential production (lb/acre):						
Favorable years	750	750	700	500	750	750
Normal years	450	450	450	350	450	450
Unfavorable years	300	300	300	200	300	300

158--BLACKHAWK-TROCKEN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BLACKHAWK	TROCKEN	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	10-20	10-20	10-20	20-25	---
Sandberg bluegrass	POSE	5-10	5-10	5-10	2-5	---
bottlebrush squirreltail	SIHY	2-8	2-8	2-8	2-5	---
needleandthread	STCO4	---	---	---	5-15	---
Bailey greasewood	SAVEB	15-30	15-30	15-30	---	---
Nevada ephedra	EPNE	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	---	---	---	20-30	---
bud sagebrush	ARSP5	2-8	2-8	2-8	---	---
shadscale	ATCO	15-30	15-30	15-30	---	---
spiny hopsage	GRSP	---	---	---	10-25	---
winterfat	EULA5	---	---	---	2-5	---
Range site number		027XY018NV	027XY018NV	027XY018NV	027XY008NV	none
Potential production (lb/acre):						
Favorable years		400	400	400	700	
Normal years		250	250	250	500	
Unfavorable years		100	100	100	300	

160--BLISS FINE SANDY LOAM, 2 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BLISS	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	15-30	---
Thurber needlegrass	STH2	40-50	40-50	---	40-50
basin wildrye	ELCI2	---	---	5-10	---
bluebunch wheatgrass	AGSP	2-10	2-10	---	---
needleandthread	STCO4	---	---	30-40	2-10
globemallow	SPHAE	1-3	1-3	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	---	15-25	---
spiny hopsage	GRSP	2-5	2-5	1-5	2-5

Range site number	024XY005NV	024XY005NV	024XY017NV	024XY005NV
Potential production (lb/acre):				
Favorable years	800	800	900	800
Normal years	600	600	700	600
Unfavorable years	400	400	500	400

161--BLISS-CHIARA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BLISS	CHIARA	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	---	10-15	5-15
Sandberg bluegrass	POSE	2-8	---	---	2-8
Thurber needlegrass	STH2	15-25	40-50	2-10	15-25
bluebunch wheatgrass	AGSP	---	2-10	---	---
bottlebrush squirreltail	SIHY	2-5	---	2-5	2-5
needleandthread	STCO4	---	---	15-25	---
globemallow	SPHAE	1-2	1-3	---	1-2
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	---	25-35	---
horsebrush	TETRA3	---	---	2-5	---
spiny hopsage	GRSP	5-15	2-5	---	5-15
Range site number		024XY020NV	024XY005NV	024XY058NV	024XY020NV
Potential production (lb/acre):					
Favorable years		700	800	1300	700
Normal years		450	600	1000	450
Unfavorable years		300	400	700	300

163--BLISS-SHABLISS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BLISS	SHABLISS	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	---	5-15	---
Sandberg bluegrass	POSE	---	---	2-8	---
Thurber needlegrass	STTH2	40-50	40-50	15-25	40-50
bluebunch wheatgrass	AGSP	2-10	2-10	---	2-10
bottlebrush squirreltail	SIHY	---	---	2-5	---
globemallow	SPHAE	1-3	1-3	1-2	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	2-5	2-5	5-15	2-5
Range site number		024XY005NV	024XY005NV	024XY020NV	024XY005NV
Potential production (lb/acre):					
Favorable years		800	800	700	800
Normal years		600	600	450	600
Unfavorable years		400	400	300	400

165--BLISS-DUGCHIP-OROVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BLISS	DUGCHIP	OROVADA	Inclusion 1
Indian ricegrass	ORHY	5-15	---	---	---
Sandberg bluegrass	POSE	2-8	---	---	---
Thurber needlegrass	STTH2	15-25	40-50	40-50	40-50
bluebunch wheatgrass	AGSP	---	2-10	2-10	2-10
bottlebrush squirreltail	SIHY	2-5	---	---	---
globemallow	SPHAE	1-2	1-3	1-3	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	5-15	2-5	2-5	2-5
Range site number		024XY020NV	024XY005NV	024XY005NV	024XY005NV
Potential production (lb/acre):					
Favorable years		700	800	800	800
Normal years		450	600	600	600
Unfavorable years		300	400	400	400

166--BLISS-OROVADA-SHABLISS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BLISS	OROVADA	SHABLISS	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15	5-15
Sandberg bluegrass	POSE	2-8	2-8	2-8	2-8	---
Thurber needlegrass	STTH2	15-25	15-25	15-25	15-25	---
bottlebrush squirreltail	SIHY	2-5	2-5	2-5	2-5	5-10
globemallow	SPHAE	1-2	1-2	1-2	1-2	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	---
bud sagebrush	ARSP5	---	---	---	---	20-30
shadscale	ATCO	---	---	---	---	30-40
spiny hopsage	GRSP	5-15	5-15	5-15	5-15	2-5
winterfat	EULA5	---	---	---	---	2-5
Range site number		024XY020NV	024XY020NV	024XY020NV	024XY020NV	024XY002NV
Potential production (lb/acre):						
Favorable years		700	700	700	700	750
Normal years		450	450	450	450	450
Unfavorable years		300	300	300	300	300

167--BLISS-BLACKHAWK-ADELAIDE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BLISS	BLACKHAWK	ADELAIDE	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	5-15	5-15	---	---
Sandberg bluegrass	POSE	---	---	2-8	---	---
Thurber needlegrass	STTH2	40-50	---	15-25	40-50	---
basin wildrye	ELCI2	---	---	---	---	55-65
bluebunch wheatgrass	AGSP	2-10	---	---	2-10	---
bottlebrush squirreltail	SIHY	---	5-10	2-5	---	---
creeping wildrye	ELTR3	---	---	---	---	5-15
western wheatgrass	AGSM	---	---	---	---	5-15
globemallow	SPHAE	1-3	---	1-2	1-3	---
Wyoming big sagebrush	ARTRW	25-35	---	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	10-15
black greasewood	SAVE4	---	---	---	---	2-8
bud sagebrush	ARSP5	---	20-30	---	---	---
shadscale	ATCO	---	30-40	---	---	---
spiny hopsage	GRSP	2-5	2-5	5-15	2-5	---
winterfat	EULA5	---	2-5	---	---	---

Range site number	024XY005NV	024XY002NV	024XY020NV	024XY005NV	024XY006NV
Potential production (lb/acre):					
Favorable years	800	750	700	800	1500
Normal years	600	450	450	600	1100
Unfavorable years	400	300	300	400	600

169--BLISS-OROVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BLISS	OROVADA	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	---	5-15	---
Sandberg bluegrass	POSE	---	---	2-8	---
Thurber needlegrass	STH2	40-50	40-50	15-25	40-50
bluebunch wheatgrass	AGSP	2-10	2-10	---	2-10
bottlebrush squirreltail	SIHY	---	---	2-5	---
globemallow	SPHAE	1-3	1-3	1-2	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	2-5	2-5	5-15	2-5

Range site number	024XY005NV	024XY005NV	024XY020NV	024XY005NV
Potential production (lb/acre):				
Favorable years	800	800	700	800
Normal years	600	600	450	600
Unfavorable years	400	400	300	400

171--BUBUS VERY FINE SANDY LOAM, MODERATELY SALINE, 0 TO 2 PERCENT SL

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		BUBUS	Inclusion 1	Inclusion 2
basin wildrye	ELCI2	---	5-15	5-15
bottlebrush squirreltail	SIHY	5-10	---	---
inland saltgrass	DISPS2	---	5-10	5-10
black greasewood	SAVE4	15-30	60-75	60-75
bud sagebrush	ARSP5	2-8	---	---
seepweed	SUAED	2-8	---	---
shadscale	ATCO	30-50	---	---
Range site number		024XY003NV	024XY011NV	024XY011NV
Potential production (lb/acre):		600	500	500
Favorable years		450	350	350
Normal years		300	200	200
Unfavorable years				

174--BUBUS-NEEDLE PEAK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BUBUS	NEEDLE PEAK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	---	---	25-35
alkali sacaton	SPAI	---	---	---	60-70	---
basin wildrye	ELCI2	---	55-65	5-15	---	2-5
bottlebrush squirreltail	SIHY	5-10	---	---	---	---
creeping wildrye	ELTR3	---	5-15	---	---	---
inland saltgrass	DISPS2	---	---	5-10	2-10	---
needleandthread	STCO4	---	---	---	---	5-10
western wheatgrass	AGSM	---	5-15	---	---	---
basin big sagebrush	ARTRT	---	10-15	---	---	---
black greasewood	SAVE4	15-30	2-8	60-75	1-5	35-45
bud sagebrush	ARSP5	2-8	---	---	---	---
iodinebush	ALOC2	---	---	---	10-20	---
seepweed	SUAED	2-8	---	---	---	---
shadscale	ATCO	30-50	---	---	---	---
spiny hopsage	GRSP	---	---	---	---	5-15

Range site number	024XY003NV	024XY006NV	024XY011NV	024XY010NV	024XY066NV
Potential production (lb/acre):					
Favorable years	600	1500	500	450	600
Normal years	450	1100	350	300	400
Unfavorable years	300	600	200	150	250

178--BUBUS-PREBLE COMPLEX 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BUBUS	PREBLE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	---	---	15-30	30-40	---
basin wildrye	ELCI2	---	5-15	---	5-10	2-8	---
bottlebrush squirreltail	SIHY	5-10	---	5-10	---	---	---
inland saltgrass	DISPS2	---	5-10	---	---	---	---
needleandthread	STCO4	---	---	---	30-40	5-15	---
thickspike wheatgrass	AGDA	---	---	---	---	5-10	---
canaigre	RUHY	---	---	---	---	1-3	---
lemon scurfpea	PSLA	---	---	---	---	1-3	---
tufted eveningprimrose	OECE2	---	---	---	---	1-3	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	25-30	---
big sagebrush	ARTR2	---	---	---	15-25	---	---
black greasewood	SAVE4	15-30	60-75	15-30	---	---	---
bud sagebrush	ARSP5	2-8	---	2-8	---	---	---
fourwing saltbush	ATCA2	---	---	---	---	2-8	---
sheepweed	SUAED	2-8	---	2-8	---	---	---
shadscale	ATCO	30-50	---	30-50	---	---	---
spiny hopsage	GRSP	---	---	---	1-5	2-8	---
Range site number		024XY003NV	024XY011NV	024XY003NV	024XY017NV	024XY001NV	none
Potential production (lb/acre):							
Favorable years		600	500	600	900	800	
Normal years		450	350	450	700	500	
Unfavorable years		300	200	300	500	300	

184--CHIARA-MCCONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		CHIARA	MCCONNEL	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	5-15	---	5-15
Sandberg bluegrass	POSE	---	2-8	---	2-8
Thurber needlegrass	STTH2	40-50	15-25	40-50	15-25
bluebunch wheatgrass	AGSP	2-10	---	2-10	---
bottlebrush squirreltail	SIHY	---	2-5	---	2-5
globemallow	SPHAE	1-3	1-2	1-3	1-2
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	2-5	5-15	2-5	5-15
Range site number		024XY005NV	024XY020NV	024XY005NV	024XY020NV
Potential production (lb/acre):					
Favorable years		800	700	800	700
Normal years		600	450	600	450
Unfavorable years		400	300	400	300

185--CHIARA-DACKER-MCCONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		CHIARA	DACKER	MCCONNEL	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	---	---	---	2-5
Sandberg bluegrass	POSE	---	2-5	---	---	---
Thurber needlegrass	STTH2	40-50	15-25	40-50	40-50	---
basin wildrye	ELCI2	---	---	---	---	5-20
bluebunch wheatgrass	AGSP	2-10	25-40	2-10	2-10	---
bottlebrush squirreltail	SIHY	---	---	---	---	2-5
globemallow	SPHAE	1-3	---	1-3	1-3	1-2
thelypody	THELY	---	---	---	---	2-4
Wyoming big sagebrush	ARTRW	25-35	15-25	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-25
black greasewood	SAVE4	---	---	---	---	20-30
spiny hopsage	GRSP	2-5	---	2-5	2-5	5-15
Range site number		024XY005NV	025XY019NV	024XY005NV	024XY005NV	024XY022NV
Potential production (lb/acre):						
Favorable years		800	800	800	800	800
Normal years		600	600	600	600	600
Unfavorable years		400	400	400	400	350

186--CHIARA-HUNNTON ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		CHIARA	HUNNTON	Inclusion 1
Thurber needlegrass	STH2	40-50	40-50	40-50
bluebunch wheatgrass	AGSP	2-10	2-10	2-10
globemallow	SPHAE	1-3	1-3	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35
spiny hopsage	GRSP	2-5	2-5	2-5
Range site number		024XY005NV	024XY005NV	024XY005NV
Potential production (lb/acre):				
Favorable years		800	800	800
Normal years		600	600	600
Unfavorable years		400	400	400

187--CHIARA-BOGER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		CHIARA	BOGER	CHIARA	Inclusion 1	Inclusion 2	Inclusion 3
Sandberg bluegrass	POSE	---	---	2-5	---	---	---
Thurber needlegrass	STTH2	40-50	40-50	15-25	40-50	40-50	---
bluebunch wheatgrass	AGSP	2-10	2-10	25-40	2-10	2-10	---
globemallow	SPHAE	1-3	1-3	---	1-3	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	15-25	25-35	25-35	---
spiny hopsage	GRSP	2-5	2-5	---	2-5	2-5	---
Range site number		024XY005NV	024XY005NV	025XY019NV	024XY005NV	024XY005NV	none
Potential production (lb/acre):							
Favorable years		800	800	800	800	800	
Normal years		600	600	600	600	600	
Unfavorable years		400	400	400	400	400	

188--CHIARA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		CHIARA	CHIARA	Inclusion 1	Inclusion 2
Sandberg bluegrass	POSE	2-5	2-5	2-5	---
Thurber needlegrass	STTH2	15-25	15-25	15-25	40-50
bluebunch wheatgrass	AGSP	25-40	25-40	25-40	2-10
globemallow	SPHAE	---	---	---	1-3
Wyoming big sagebrush	ARTRW	15-25	15-25	15-25	25-35
spiny hopsage	GRSP	---	---	---	2-5
Range site number		025XY019NV	025XY019NV	025XY019NV	024XY005NV
Potential production (lb/acre):					
Favorable years		800	800	800	800
Normal years		600	600	600	600
Unfavorable years		400	400	400	400

190--BEEOX-OXCOREL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BEEOX	OXCOREL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	---	5-15
Sandberg bluegrass	POSE	---	---	2-8	---	---
Thurber needlegrass	STTH2	---	---	15-25	40-50	---
bluebunch wheatgrass	AGSP	---	---	---	2-10	---
bottlebrush squirreltail	SIHY	5-10	5-10	2-5	---	5-10
globemallow	SPHAE	---	---	1-2	1-3	---
Wyoming big sagebrush	ARTRW	---	---	25-35	25-35	---
bud sagebrush	ARSP5	20-30	20-30	---	---	20-30
shadscale	ATCO	30-40	30-40	---	---	30-40
spiny hopsage	GRSP	2-5	2-5	5-15	2-5	2-5
winterfat	EULA5	2-5	2-5	---	---	2-5
Range site number		024XY002NV	024XY002NV	024XY020NV	024XY005NV	024XY002NV
Potential production (lb/acre):						
Favorable years		750	750	700	800	750
Normal years		450	450	450	600	450
Unfavorable years		300	300	300	400	300

191--BEEOX-CONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BEEOX	CONNEL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15	---
Sandberg bluegrass	POSE	---	2-8	---	2-8	---
Thurber needlegrass	STH2	---	15-25	---	15-25	---
bottlebrush squirreltail	SIHY	5-10	2-5	5-10	2-5	5-10
globemallow	SPHA	---	1-2	---	1-2	---
Wyoming big sagebrush	ARTRW	---	25-35	---	25-35	---
black greasewood	SAVE4	---	---	---	---	15-30
bud sagebrush	ARSP5	20-30	---	20-30	---	2-8
seepweed	SUAED	---	---	---	---	2-8
shadscale	ATCO	30-40	---	30-40	---	30-50
spiny hopsage	GRSP	2-5	5-15	2-5	5-15	---
winterfat	EULA5	2-5	---	2-5	---	---

Range site number	024XY002NV	024XY020NV	024XY002NV	024XY020NV	024XY003NV
Potential production (lb/acre):					
Favorable years	750	700	750	700	600
Normal years	450	450	450	450	450
Unfavorable years	300	300	300	300	300

192--BEEOX-BLISS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BEEOX	BLISS	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15	---
Sandberg bluegrass	POSE	---	2-8	2-8	---	---
Thurber needlegrass	STH2	---	15-25	15-25	---	40-50
bluebunch wheatgrass	AGSP	---	---	---	---	2-10
bottlebrush squirreltail	SIHY	5-10	2-5	2-5	5-10	---
globemallow	SPHAE	---	1-2	1-2	---	1-3
Wyoming big sagebrush	ARTRW	---	25-35	25-35	---	25-35
bud sagebrush	ARSP5	20-30	---	---	20-30	---
shadscale	ATCO	30-40	---	---	30-40	---
spiny hopsage	GRSP	2-5	5-15	5-15	2-5	2-5
winterfat	EULAS	2-5	---	---	2-5	---

Range site number	024XY002NV	024XY020NV	024XY020NV	024XY002NV	024XY005NV
Potential production (lb/acre):					
Favorable years	750	700	700	750	800
Normal years	450	450	450	450	600
Unfavorable years	300	300	300	300	400

200--DAVEY LOAMY FINE SAND, MODERATELY SALINE, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		DAVEY	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	2-5	30-40	---	---
basin wildrye	ELCI2	5-20	2-8	---	---
bottlebrush squirreltail	SIHY	2-5	---	5-10	---
needleandthread	STCO4	---	5-15	---	5-10
thickspike wheatgrass	AGDA	---	5-10	---	---
cansigre	RUHY	---	1-3	---	---
globemallow	SPHAE	1-2	---	---	---
lemon scurfpea	PSLA	---	1-3	---	---
thelypody	THELY	2-4	---	---	---
tufted eveningprimrose	OECE2	---	1-3	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	25-30	---	---
big sagebrush	ARTR2	10-25	---	---	---
black greasewood	SAVE4	20-30	---	15-30	15-30
bud sagebrush	ARSP5	---	---	2-8	2-8
fourwing saltbush	ATCA2	---	2-8	---	---
seepweed	SUAED	---	---	2-8	2-8
shadscale	ATCO	---	---	30-50	30-50
spiny hopsage	GRSP	5-15	2-8	---	---

Range site number	024XY022NV	024XY001NV	024XY003NV	024XY003NV
Potential production (lb/acre):				
Favorable years	800	800	600	600
Normal years	600	500	450	450
Unfavorable years	350	300	300	300

201--DAVEY LOAMY FINE SAND, 2 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DAVEY	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	15-30	30-40	5-15	2-5	5-15
basin wildrye	ELCI2	5-10	2-8	---	5-20	---
bottlebrush squirreltail	SIHY	---	---	5-10	2-5	5-10
needleandthread	STCO4	30-40	5-15	---	---	---
thickspike wheatgrass	AGDA	---	5-10	---	---	---
canaigre	RUHY	---	1-3	---	---	---
globemallow	SPHAE	---	---	---	1-2	---
lemon scurfpea	PSLA	---	1-3	---	---	---
thelypody	THELY	---	---	---	2-4	---
tufted eveningprimrose	OECE2	---	1-3	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---
basin big sagebrush	ARTRT	---	25-30	---	10-25	---
big sagebrush	ARTR2	15-25	---	---	20-30	---
black greasewood	SAVE4	---	---	---	---	20-30
bud sagebrush	ARSP5	---	---	20-30	---	---
fourwing saltbush	ATCA2	---	2-8	---	---	---
shadscale	ATCO	---	---	30-40	---	30-40
spiny hopsage	GRSP	1-5	2-8	---	5-15	2-5
winterfat	EULA5	---	---	2-5	---	2-5

Range site number	024XY017NV	024XY001NV	024XY002NV	024XY022NV	024XY002NV
Potential production (lb/acre):					
Favorable years	900	800	750	800	750
Normal years	700	500	450	600	450
Unfavorable years	500	300	300	350	300

202--DAVEY LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		DAVEY	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	15-30	30-40	5-15
basin wildrye	ELCI2	5-10	2-8	---
bottlebrush squirreltail	SIHY	---	---	5-10
needleandthread	STCO4	30-40	5-15	---
thickspike wheatgrass	AGDA	---	5-10	---
canaigre	RUHY	---	1-3	---
lemon scurfpea	PSLA	---	1-3	---
tufted eveningprimrose	OECE2	---	1-3	---
Wyoming big sagebrush	ARTRW	---	---	---
basin big sagebrush	ARTRT	---	25-30	---
big sagebrush	ARTR2	15-25	---	---
bud sagebrush	ARSP5	---	---	20-30
fourwing saltbush	ATCA2	---	2-8	---
shadscale	ATCO	---	---	30-40
spiny hopsage	GRSP	1-5	2-8	2-5
winterfat	EULAS	---	---	2-5
Range site number		024XY017NV	024XY001NV	024XY002NV
Potential production (lb/acre):				
Favorable years		900	800	750
Normal years		700	500	450
Unfavorable years		500	300	300

203--DAVEY-GOLDRUN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DAVEY	GOLDRUN	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	15-30	30-40	5-15	20-30	15-30
Sandberg bluegrass	POSE	---	---	2-8	---	---
Thurber needlegrass	STTH2	---	---	15-25	---	---
basin wildrye	ELCI2	5-10	2-8	---	---	5-10
bottlebrush squirreltail	SIHY	---	---	2-5	---	---
needleandthread	STCO4	30-40	5-15	---	5-15	30-40
thickspike wheatgrass	AGDA	---	5-10	---	---	---
canaigre	RUHY	---	1-3	---	---	---
globemallow	SPHAE	---	---	1-2	---	---
lemon scurfpea	PSLA	---	1-3	---	---	---
tufted eveningprimrose	OECE2	---	1-3	---	---	---
Nevada dalea	PAPO	---	---	---	2-8	---
Wyoming big sagebrush	ARTRW	---	---	25-35	---	---
basin big sagebrush	ARTRT	---	25-30	---	---	---
big sagebrush	ARTR2	15-25	---	---	---	15-25
fourwing saltbush	ATCA2	---	2-8	---	15-25	---
hairy horsebrush	TECO2	---	---	---	25-35	---
littleleaf horsebrush	TEGL	---	---	---	2-5	---
spiny hopsage	GRSP	1-5	2-8	5-15	---	1-5

Range site number	024XY017NV	024XY001NV	024XY020NV	027XY023NV	024XY017NV
Potential production (lb/acre):					
Favorable years	900	800	700	700	900
Normal years	700	500	450	500	700
Unfavorable years	500	300	300	300	500

204--DAVEY-BLACKHAWK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DAVEY	BLACKHAWK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	15-30	5-15	20-30	25-35	5-15
Sandberg bluegrass	POSE	---	---	---	---	2-8
Thurber needlegrass	STH2	---	---	---	5-10	15-25
basin wildrye	ELCI2	5-10	---	---	---	---
bottlebrush squirreltail	SIHY	---	5-10	2-5	---	2-5
needleandthread	STCO4	30-40	---	5-10	---	---
globemallow	SPHAE	---	---	---	2-4	1-2
Douglas rabbitbrush	CHVI8	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	25-35
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	15-25	---	---	---	---
bud sagebrush	ARSP5	---	20-30	---	---	---
dalea	DALEA	---	---	2-5	---	---
fourwing saltbush	ATCA2	---	---	5-10	---	---
shadscale	ATCO	---	30-40	5-10	2-5	---
spiny hopsage	GRSP	1-5	2-5	10-20	2-5	5-15
winterfat	EULA5	---	2-5	---	---	---

Range site number	024XY017NV	024XY002NV	024XY055NV	024XY045NV	024XY020NV
Potential production (lb/acre):					
Favorable years	900	750	600	350	700
Normal years	700	450	400	200	450
Unfavorable years	500	300	250	100	300

205--DAVEY-HAWSLEY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DAVEY	HAWSLEY	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	15-30	20-30	5-15	5-15	5-15
basin wildrye	ELCI2	5-10	---	---	---	---
bottlebrush squirreltail	SIHY	---	2-5	5-10	2-5	5-10
desert needlegrass	STSP3	---	---	---	2-8	---
needleandthread	STCO4	30-40	5-10	---	---	---
Bailey greasewood	SAVEB	---	---	---	15-30	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	15-25	---	---	---	---
bud sagebrush	ARSP5	---	---	20-30	2-8	20-30
dalea	DALEA	---	2-5	---	---	---
fourwing saltbush	ATCA2	---	5-10	---	---	---
shadscale	ATCO	---	5-10	30-40	15-35	30-40
spiny hopsage	GRSP	1-5	10-20	2-5	---	2-5
winterfat	EULAS	---	---	2-5	---	2-5

Range site number	024XY017NV	024XY055NV	024XY002NV	027XY019NV	024XY002NV
Potential production (lb/acre):					
Favorable years	900	600	750	300	750
Normal years	700	400	450	175	450
Unfavorable years	500	250	300	50	300

206--DAVEY-BROYLES-DUN GLEN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		DAVEY	BROYLES	DUN GLEN	Inclusion 1
Indian ricegrass	ORHY	15-30	---	5-15	---
basin wildrye	ELCI2	5-10	---	---	---
bottlebrush squirreltail	SIHY	---	5-10	5-10	5-10
needleandthread	STCO4	30-40	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	15-25	---	---	---
black greasewood	SAVE4	---	15-30	---	15-30
bud sagebrush	ARSP5	---	2-8	20-30	2-8
seepweed	SUAED	---	2-8	---	2-8
shadscale	ATCO	---	30-50	30-40	30-50
spiny hopsage	GRSP	1-5	---	2-5	---
winterfat	EULA5	---	---	2-5	---

Range site number	024XY017NV	024XY003NV	024XY002NV	024XY003NV
Potential production (lb/acre):				
Favorable years	900	600	750	600
Normal years	700	450	450	450
Unfavorable years	500	300	300	300

207--DAVEY-PUMPER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		DAVEY	PUMPER	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	15-30	5-15	2-10	20-30
Sandberg bluegrass	POSE	---	---	2-5	---
basin wildrye	ELCT2	5-10	---	10-20	---
bottlebrush squirreltail	SIHY	---	5-10	2-5	2-5
needleandthread	STCO4	30-40	---	---	5-10
Anderson peachbrush	PRAN2	---	---	2-8	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	---	15-25	---
big sagebrush	ARTR2	15-25	---	---	---
black greasewood	SAVE4	---	---	2-8	---
bud sagebrush	ARSP5	---	20-30	---	---
dalea	DALEA	---	---	---	2-5
fourwing saltbush	ATCA2	---	---	---	5-10
other shrubs	SSSS	---	---	2-8	---
shadscale	ATCO	---	30-40	---	5-10
spiny hopsage	GRSP	1-5	2-5	15-30	10-20
winterfat	EULA5	---	2-5	---	---

Range site number	024XY017NV	024XY002NV	024XY041NV	024XY055NV
Potential production (lb/acre):				
Favorable years	900	750	1000	600
Normal years	700	450	800	400
Unfavorable years	500	300	600	250

208--DAVEY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		DAVEY	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	2-5
Sandberg bluegrass	POSE	2-8	2-8	2-8	---
Thurber needlegrass	STH2	15-25	15-25	15-25	---
basin wildrye	ELCI2	---	---	---	5-20
bottlebrush squirreltail	SIHY	2-5	2-5	2-5	2-5
globemallow	SPHAE	1-2	1-2	1-2	1-2
thelypody	THELY	---	---	---	2-4
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	---	---	10-25
black greasewood	SAVE4	---	---	---	20-30
spiny hopsage	GRSP	5-15	5-15	5-15	5-15

Range site number	024XY020NV	024XY020NV	024XY020NV	024XY022NV
Potential production (lb/acre):				
Favorable years	700	700	700	800
Normal years	450	450	450	600
Unfavorable years	300	300	300	350

210--FLUE-CONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		FLUE	CONNEL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	5-10	---	---
Sandberg bluegrass	POSE	2-8	2-8	---	---	---	---
Thurber needlegrass	STH2	15-25	15-25	40-50	---	40-50	40-50
basin wildrye	ELCI2	---	---	---	60-70	---	---
bluebunch wheatgrass	AGSP	---	---	2-10	---	2-10	2-10
bottlebrush squirreltail	SIHY	2-5	2-5	---	---	---	---
mat muhly	MURI	---	---	---	2-8	---	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---	---
globemallow	SPHAE	1-2	1-2	1-3	---	1-3	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	25-35	25-35
basin big sagebrush	ARTRT	---	---	---	5-10	---	---
spiny hopsage	GRSP	5-15	5-15	2-5	---	2-5	2-5
Range site number		024XY020NV	024XY020NV	024XY005NV	025XY003NV	024XY005NV	024XY005NV
Potential production (lb/acre):							
Favorable years		700	700	800	4500	800	800
Normal years		450	450	600	3500	600	600
Unfavorable years		300	300	400	2000	400	400

211--FLUE-GOLCONDA-SNAPP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		FLUE	GOLCONDA	SNAPP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	5-15	2-10	5-15	5-15	---
Sandberg bluegrass	POSE	2-8	---	2-8	2-5	2-8	2-8	---
Thurber needlegrass	STH2	15-25	---	15-25	---	15-25	15-25	40-50
basin wildrye	ELCI2	---	---	---	10-20	---	---	---
bluebunch wheatgrass	AGSP	---	---	---	---	---	---	2-10
bottlebrush squirreltail	SIHY	2-5	5-10	2-5	2-5	2-5	2-5	---
globemallow	SPHAE	1-2	---	1-2	---	1-2	1-2	1-3
Anderson peachbrush	PRAN2	---	---	---	2-8	---	---	---
Wyoming big sagebrush	ARTRW	25-35	---	25-35	---	25-35	25-35	25-35
basin big sagebrush	ARTRT	---	---	---	15-25	---	---	---
black greasewood	SAVE4	---	---	---	2-8	---	---	---
bud sagebrush	ARSP5	---	20-30	---	---	---	---	---
other shrubs	SSSS	---	---	---	2-8	---	---	---
shadscale	ATCO	---	30-40	---	---	---	---	---
spiny hopsage	GRSP	5-15	2-5	5-15	15-30	5-15	5-15	2-5
winterfat	EULA5	---	2-5	---	---	---	---	---

Range site number	024XY020NV	024XY002NV	024XY020NV	024XY041NV	024XY020NV	024XY020NV	024XY005NV
Potential production (lb/acre):							
Favorable years	700	750	700	1000	700	700	800
Normal years	450	450	450	800	450	450	600
Unfavorable years	300	300	300	600	300	300	400

212--FLUE-OROVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		FLUE	OROVADA	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15	---
Sandberg bluegrass	POSE	2-8	2-8	2-8	2-8	---
Thurber needlegrass	STTH2	15-25	15-25	15-25	15-25	---
basin wildrye	ELCI2	---	---	---	---	55-65
bottlebrush squirreltail	SIHY	2-5	2-5	2-5	2-5	---
creeping wildrye	ELTR3	---	---	---	---	5-15
western wheatgrass	AGSM	---	---	---	---	5-15
globemallow	SPHAE	1-2	1-2	1-2	1-2	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	10-15
black greasewood	SAVE4	---	---	---	---	2-8
spiny hopsage	GRSP	5-15	5-15	5-15	5-15	---
Range site number		024XY020NV	024XY020NV	024XY020NV	024XY020NV	024XY006NV
Potential production (lb/acre):						
Favorable years		700	700	700	700	1500
Normal years		450	450	450	450	1100
Unfavorable years		300	300	300	300	600

213--FLUE-PUETT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		FLUE	PUETT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	25-35	5-15	5-15	---	---
Sandberg bluegrass	POSE	2-8	---	2-8	---	---	---
Thurber needlegrass	STTH2	15-25	5-10	15-25	---	---	---
basin wildrye	ELCI2	---	---	---	---	55-65	---
bottlebrush squirreltail	SIHY	2-5	---	2-5	5-10	---	---
creeping wildrye	ELTR3	---	---	---	---	5-15	---
western wheatgrass	AGSM	---	---	---	---	5-15	---
globemallow	SPHAE	1-2	2-4	1-2	---	---	---
Douglas rabbitbrush	CHVI8	---	2-5	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	10-15	---
black greasewood	SAVE4	---	---	---	---	2-8	---
bud sagebrush	ARSP5	---	---	---	20-30	---	---
shadscale	ATCO	---	2-5	---	30-40	---	---
spiny hopsage	GRSP	5-15	2-5	5-15	2-5	---	---
winterfat	EULA5	---	---	---	2-5	---	---

Range site number	024XY020NV	024XY045NV	024XY020NV	024XY002NV	024XY006NV	none
Potential production (lb/acre):						
Favorable years	700	350	700	750	1500	
Normal years	450	200	450	450	1100	
Unfavorable years	300	100	300	300	600	

215--FLUE-SNAPP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		FLUE	SNAPP	SNAPP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	---	5-15	---	---	2-10	5-15
Sandberg bluegrass	POSE	---	---	2-8	---	2-5	2-5	---
Thurber needlegrass	SSTH2	40-50	40-50	15-25	40-50	15-25	---	---
basin wildrye	ELCI2	---	---	---	---	---	10-20	---
bluebunch wheatgrass	AGSP	2-10	2-10	---	2-10	25-40	---	---
bottlebrush squirreltail	SIHY	---	---	2-5	---	---	2-5	5-10
globemallow	SPHAE	1-3	1-3	1-2	1-3	---	---	---
Anderson peachbrush	PRAN2	---	---	---	---	---	2-8	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	15-25	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	15-25	---
black greasewood	SAVE4	---	---	---	---	---	2-8	---
bud sagebrush	ARSP5	---	---	---	---	---	---	20-30
other shrubs	SSSS	---	---	---	---	---	2-8	---
shadscale	ATCO	---	---	---	---	---	---	30-40
spiny hopsage	GRSP	2-5	2-5	5-15	2-5	---	15-30	2-5
winterfat	EULAS	---	---	---	---	---	---	2-5

Range site number	024XY005NV	024XY005NV	024XY020NV	024XY005NV	025XY019NV	024XY041NV	024XY002NV
Potential production (lb/acre):							
Favorable years	800	800	700	800	800	1000	750
Normal years	600	600	450	600	600	800	450
Unfavorable years	400	400	300	400	400	600	300

216--FLUE VERY FINE SANDY LOAM, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		FLUE	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	---	5-10
Thurber needlegrass	STTH2	40-50	40-50	40-50	---
basin wildrye	ELCI2	---	---	---	60-70
bluebunch wheatgrass	AGSP	2-10	2-10	2-10	---
mat muhly	MURI	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	2-8
globemallow	SPHAE	1-3	1-3	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	---	5-10
spiny hopsage	GRSP	2-5	2-5	2-5	---
Range site number		024XY005NV	024XY005NV	024XY005NV	025XY003NV
Potential production (lb/acre):					
Favorable years		800	800	800	4500
Normal years		600	600	600	3500
Unfavorable years		400	400	400	2000

217--FLUE LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		FLUE	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	---	5-10	---
Thurber needlegrass	STTH2	40-50	---	---
basin wildrye	ELCI2	---	60-70	55-65
bluebunch wheatgrass	AGSP	2-10	---	---
creeping wildrye	ELTR3	---	---	5-15
mat muhly	MURI	---	2-8	---
streambank wheatgrass	AGDAR	---	2-8	---
western wheatgrass	AGSM	---	---	5-15
globemallow	SPHAE	1-3	---	---
Wyoming big sagebrush	ARTRW	25-35	---	---
basin big sagebrush	ARTRT	---	5-10	10-15
black greasewood	SAVE4	---	---	2-8
spiny hopsage	GRSP	2-5	---	---
Range site number		024XY005NV	025XY003NV	024XY006NV
Potential production (lb/acre):				
Favorable years		800	4500	1500
Normal years		600	3500	1100
Unfavorable years		400	2000	600

218--FLUE-SNAPP-RODOCK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		FLUE	SNAPP	RODOCK	Inclusion 1	Inclusion 2
Canby bluegrass	POCA	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10
Thurber needlegrass	STH2	40-50	40-50	20-30	40-50	---
basin wildrye	ELCI2	---	---	2-5	---	60-70
bluebunch wheatgrass	AGSP	2-10	2-10	30-40	2-10	---
bluegrass	POA++	---	---	2-8	---	---
mat muhly	MURI	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	2-8
globemallow	SPHAE	1-3	1-3	---	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	10-15	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---
spiny hopsage	GRSP	2-5	2-5	---	2-5	---

Range site number	024XY005NV	024XY005NV	024XY013NV	024XY005NV	025XY003NV
Potential production (lb/acre):					
Favorable years	800	800	1000	800	4500
Normal years	600	600	800	600	3500
Unfavorable years	400	400	600	400	2000

222--BLOOR VERY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BLOOR	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	2-5	2-5	---	---	2-5
basin wildrye	ELCI2	5-20	5-20	55-65	---	5-20
bottlebrush squirreltail	SIHY	2-5	2-5	---	5-10	2-5
creeping wildrye	ELTR3	---	---	5-15	---	---
western wheatgrass	AGSM	---	---	5-15	---	---
globemallow	SPHAE	1-2	1-2	---	---	1-2
thelypody	THELY	2-4	2-4	---	---	2-4
Wyoming big sagebrush	ARTRW	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	10-15	---	---
big sagebrush	ARTR2	10-25	10-25	---	---	10-25
black greasewood	SAVE4	20-30	20-30	2-8	15-30	20-30
bud sagebrush	ARSP5	---	---	---	2-8	---
seepweed	SUAED	---	---	---	---	---
shadscale	ATCO	---	---	---	30-50	---
spiny hopsage	GRSP	5-15	5-15	---	---	5-15

Range site number	024XY022NV	024XY022NV	024XY006NV	024XY003NV	024XY022NV
Potential production (lb/acre):					
Favorable years	800	800	1500	600	800
Normal years	600	600	1100	450	600
Unfavorable years	350	350	600	300	350

231--DUN GLEN VERY FINE SANDY LOAM, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		DUN GLEN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	---	5-15
bottlebrush squirreltail	SIHY	5-10	5-10	5-10
black greasewood	SAVE4	---	15-30	---
bud sagebrush	ARSP5	20-30	2-8	20-30
seepweed	SUAED	---	2-8	---
shadscale	ATCO	30-40	30-50	30-40
spiny hopsage	GRSP	2-5	---	2-5
winterfat	EULAS	2-5	---	2-5
Range site number		024XY002NV	024XY003NV	024XY002NV
Potential production (lb/acre):				
Favorable years		750	600	750
Normal years		450	450	450
Unfavorable years		300	300	300

233--DUN GLEN VERY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		DUN GLEN	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	---	5-15	15-25
bottlebrush squirreltail	SIHY	5-10	5-10	5-10	2-8
black greasewood	SAVE4	---	15-30	---	---
bud sagebrush	ARSP5	20-30	2-8	20-30	2-5
seepweed	SUAED	---	2-8	---	---
shadscale	ATCO	30-40	30-50	30-40	---
spiny hopsage	GRSP	2-5	---	2-5	---
winterfat	EULA5	2-5	---	2-5	60-70
Range site number		024XY002NV	024XY003NV	024XY002NV	024XY004NV
Potential production (lb/acre):					
Favorable years		750	600	750	500
Normal years		450	450	450	350
Unfavorable years		300	300	300	200

241--SOJUR EXTREMELY CHANNERY SILT LOAM, 15 TO 50 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		SOJUR	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	15-25	---	5-15	---
Sandberg bluegrass	POSE	---	---	2-8	2-5
Thurber needlegrass	STTH2	---	---	25-35	---
desert needlegrass	STSP3	2-10	---	---	40-50
Nevada ephedra	EPNE	2-5	---	2-5	2-5
Wyoming big sagebrush	ARTRW	---	---	25-35	25-30
bud sagebrush	ARSP5	2-8	---	---	---
shadscale	ATCO	30-40	---	---	---
spiny hopsage	GRSP	---	---	2-8	2-8
winterfat	EULA5	2-8	---	---	---
Range site number		027XY027NV	none	027XY007NV	027XY065NV
Potential production (lb/acre):					
Favorable years		200		700	600
Normal years		100		500	500
Unfavorable years		50		300	300

250--CONNEL-DAVEY-GOLDRUN COMPLEX, 4 TO 30 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		CONNEL	DAVEY	GOLDRUN	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	15-30	30-40	15-30	---	5-15
Sandberg bluegrass	POSE	2-8	---	---	---	---	2-8
Thurber needlegrass	STTH2	15-25	---	---	---	40-50	15-25
basin wildrye	ELCI2	---	5-10	2-8	5-10	---	---
bluebunch wheatgrass	AGSP	---	---	---	---	2-10	---
bottlebrush squirreltail	SIHY	2-5	---	---	---	---	2-5
needleandthread	STCO4	---	30-40	5-15	30-40	---	---
thickspike wheatgrass	AGDA	---	---	5-10	---	---	---
canaigre	RUHY	---	---	1-3	---	---	---
globemallow	SPHA	1-2	---	---	---	1-3	1-2
lemon scurfpea	PSLA	---	---	1-3	---	---	---
tufted eveningprimrose	OECE2	---	---	1-3	---	---	---
Wyoming big sagebrush	ARTRW	25-35	---	---	---	25-35	25-35
basin big sagebrush	ARTRT	---	---	25-30	---	---	---
big sagebrush	ARTR2	---	15-25	---	15-25	---	---
fourwing saltbush	ATCA2	---	---	2-8	---	---	---
spiny hopsage	GRSP	5-15	1-5	2-8	1-5	2-5	5-15
Range site number		024XY020NV	024XY017NV	024XY001NV	024XY017NV	024XY005NV	024XY020NV
Potential production (lb/acre):							
Favorable years		700	900	800	900	800	700
Normal years		450	700	500	700	600	450
Unfavorable years		300	500	300	500	400	300

251--CONNEL VERY FINE SANDY LOAM, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		CONNEL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	15-30	---
Thurber needlegrass	STTH2	40-50	40-50	---	40-50
basin wildrye	ELCI2	---	---	5-10	---
bluebunch wheatgrass	AGSP	2-10	2-10	---	2-10
needleandthread	STCO4	---	---	30-40	---
globemallow	SPHAE	1-3	1-3	---	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	---	15-25	---
spiny hopsage	GRSP	2-5	2-5	1-5	2-5
Range site number		024XY005NV	024XY005NV	024XY017NV	024XY005NV
Potential production (lb/acre):					
Favorable years		800	800	900	800
Normal years		600	600	700	600
Unfavorable years		400	400	500	400

252--CONNEL GRAVELLY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		CONNEL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	---	---
Nevada bluegrass	PONE3	---	---	5-15	5-15
Sandberg bluegrass	POSE	2-8	2-8	---	---
Thurber needlegrass	STH2	15-25	15-25	---	---
basin wildrye	ELCI2	---	---	---	---
bottlebrush squirreltail	SIHY	2-5	2-5	---	---
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	---	---	2-5	2-5
mat muhly	MURI	---	---	2-5	2-5
sedge	CAREX	---	---	2-10	2-10
wildrye	ELYMU	---	---	60-80	60-80
globemallow	SPHAE	1-2	1-2	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---
spiny hopsage	GRSP	5-15	5-15	---	---
willow	SALIX	---	---	5-10	5-10
Range site number		024XY020NV	024XY020NV	025XY001NV	025XY001NV
Potential production (lb/acre):					
Favorable years		700	700	3500	3500
Normal years		450	450	2500	2500
Unfavorable years		300	300	1800	1800

253--CONNEL-MCCONNEL COMPLEX, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		CONNEL	MCCONNEL	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	2-5	---	---	---
Nevada bluegrass	PONE3	---	---	5-15	---
basin wildrye	ELCI2	5-20	55-65	---	55-65
bottlebrush squirreltail	SIHY	2-5	---	---	---
creeping wildrye	ELTR3	---	5-15	---	5-15
inland saltgrass	DISPS2	---	---	2-5	---
mat muhly	MURI	---	---	2-5	---
sedge	CAREX	---	---	2-10	---
western wheatgrass	AGSM	---	5-15	---	5-15
wildrye	ELYMU	---	---	60-80	---
globemallow	SPHAE	1-2	---	---	---
thelypody	THELY	2-4	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	10-15	---	10-15
big sagebrush	ARTR2	10-25	---	---	---
black greasewood	SAVE4	20-30	2-8	---	2-8
spiny hopsage	GRSP	5-15	---	---	---
willow	SALIX	---	---	5-10	---
Range site number		024XY022NV	024XY006NV	025XY001NV	024XY006NV
Potential production (lb/acre):					
Favorable years		800	1500	3500	1500
Normal years		600	1100	2500	1100
Unfavorable years		350	600	1800	600

254--CONNEL-ZEVADEZ ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		CONNEL	ZEVADEZ	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	---	5-15	10-15
Sandberg bluegrass	POSE	---	---	---	2-8	---
Thurber needlegrass	STTH2	40-50	40-50	40-50	15-25	2-10
bluebunch wheatgrass	AGSP	2-10	2-10	2-10	---	---
bottlebrush squirreltail	SIHY	---	---	---	2-5	2-5
needleandthread	STCO4	---	---	---	---	15-25
globemallow	SPHAE	1-3	1-3	1-3	1-2	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	25-35
horsebrush	TETRA3	---	---	---	---	2-5
spiny hopsage	GRSP	2-5	2-5	2-5	5-15	---

Range site number	024XY005NV	024XY005NV	024XY005NV	024XY020NV	024XY058NV
Potential production (lb/acre):					
Favorable years	800	800	800	700	1300
Normal years	600	600	600	450	1000
Unfavorable years	400	400	400	300	700

255--CONNEL-MCCONNEL COMPLEX, RARELY FLOODED, 0 TO 2 PERCENT SLOPES 1

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		CONNEL	MCCONNEL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	---	---	2-5
Nevada bluegrass	PONE3	---	---	5-10	---	---
Thurber needlegress	STTH2	40-50	40-50	---	---	---
basin wildrye	ELCI2	---	---	60-70	55-65	5-20
bluebunch wheatgrass	AGSP	2-10	2-10	---	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	2-5
creeping wildrye	ELTR3	---	---	---	5-15	---
mat muhly	MURI	---	---	2-8	---	---
streambank wheatgrass	AGDAR	---	---	2-8	---	---
western wheatgrass	AGSM	---	---	---	5-15	---
globemallow	SPHAE	1-3	1-3	---	---	1-2
thelypody	THELY	---	---	---	---	2-4
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---	---
basin big sagebrush	ARTRT	---	---	5-10	10-15	---
big sagebrush	ARTR2	---	---	---	---	10-25
black greasewood	SAVE4	---	---	---	2-8	20-30
spiny hopsage	GRSP	2-5	2-5	---	---	5-15

Range site number	024XY005NV	024XY005NV	025XY003NV	024XY006NV	024XY022NV
Potential production (lb/acre):					
Favorable years	800	800	4500	1500	800
Normal years	600	600	3500	1100	600
Unfavorable years	400	400	2000	600	350

257--CONNEL VERY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		CONNEL	Inclusion 1	Inclusion 2
Thurber needlegrass	STTH2	40-50	---	40-50
basin wildrye	ELCI2	---	55-65	---
bluebunch wheatgrass	AGSP	2-10	---	2-10
creeping wildrye	ELTR3	---	5-15	---
western wheatgrass	AGSM	---	5-15	---
globemallow	SPHAE	1-3	---	1-3
Wyoming big sagebrush	ARTRW	25-35	---	25-35
basin big sagebrush	ARTRT	---	10-15	---
black greasewood	SAVE4	---	2-8	---
spiny hopsage	GRSP	2-5	---	2-5
Range site number		024XY005NV	024XY006NV	024XY005NV
Potential production (lb/acre):				
Favorable years		800	1500	800
Normal years		600	1100	600
Unfavorable years		400	600	400

258--CONNEL VERY FINE SANDY LOAM, SLIGHTLY SALINE, 0 TO 2 PERCENT SLO

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions	
		Soil name or Inclusion number--	
		CONNEL	Inclusion 1
Indian ricegrass	ORHY	2-5	---
basin wildrye	ELCI2	5-20	55-65
bottlebrush squirreltail	SIHY	2-5	---
creeping wildrye	ELTR3	---	5-15
western wheatgrass	AGSM	---	5-15
globemallow	SPHAE	1-2	---
thelypody	THELY	2-4	---
Wyoming big sagebrush	ARTRW	---	---
basin big sagebrush	ARTRT	---	10-15
big sagebrush	ARTR2	10-25	---
black greasewood	SAVE4	20-30	2-8
spiny hopsage	GRSP	5-15	---

Range site number	024XY022NV	024XY006NV
Potential production (lb/acre):		
Favorable years	800	1500
Normal years	600	1100
Unfavorable years	350	600

262--GOLCONDA-SNAPP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		GOLCONDA	SNAPP	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15	5-15
Sandberg bluegrass	POSE	---	2-8	2-8	2-8	---
Thurber needlegrass	STH2	---	15-25	15-25	15-25	---
bottlebrush squirreltail	SIHY	5-10	2-5	2-5	2-5	5-10
globemallow	SPHAE	---	1-2	1-2	1-2	---
Wyoming big sagebrush	ARTRW	---	25-35	25-35	25-35	---
bud sagebrush	ARSP5	20-30	---	---	---	20-30
shadscale	ATCO	30-40	---	---	---	30-40
spiny hopsage	GRSP	2-5	5-15	5-15	5-15	2-5
winterfat	EULA5	2-5	---	---	---	2-5
Range site number		024XY002NV	024XY020NV	024XY020NV	024XY020NV	024XY002NV
Potential production (lb/acre):						
Favorable years		750	700	700	700	750
Normal years		450	450	450	450	450
Unfavorable years		300	300	300	300	300

263--GOLCONDA-BLISS-CONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		GOLCONDA	BLISS	CONNEL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	---	---	2-5	5-15
Sandberg bluegrass	POSE	---	2-8	---	---	---	---
Thurber needlegrass	STH2	---	15-25	40-50	40-50	---	---
basin wildrye	ELCI2	---	---	---	---	5-20	---
bluebunch wheatgrass	AGSP	---	---	2-10	2-10	---	---
bottlebrush squirreltail	SIHY	5-10	2-5	---	---	2-5	5-10
globemallow	SPHAE	---	1-2	1-3	1-3	1-2	---
thelypod	THELY	---	---	---	---	2-4	---
Wyoming big sagebrush	ARTRW	---	25-35	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-25	---
black greasewood	SAVE4	---	---	---	---	20-30	---
bud sagebrush	ARSP5	20-30	---	---	---	---	20-30
shadscale	ATCO	30-40	---	---	---	---	30-40
spiny hopsage	GRSP	2-5	5-15	2-5	2-5	5-15	2-5
winterfat	EULA5	2-5	---	---	---	---	2-5

Range site number	024XY002NV	024XY020NV	024XY005NV	024XY005NV	024XY022NV	024XY002NV
Potential production (lb/acre):						
Favorable years	750	700	800	800	800	750
Normal years	450	450	600	600	600	450
Unfavorable years	300	300	400	400	350	300

270--GOLDRUN FINE SAND, 2 TO 15 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		GOLDRUN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	30-40	2-5	5-15
Sandberg bluegrass	POSE	---	---	2-8
Thurber needlegrass	STH2	---	---	15-25
basin wildrye	ELC12	2-8	5-20	---
bottlebrush squirreltail	SIHY	---	2-5	2-5
needleandthread	STCO4	5-15	---	---
thickspike wheatgrass	AGDA	5-10	---	---
canaigre	RUHY	1-3	---	---
globemallow	SPHAE	---	1-2	1-2
lemon scurfpea	PSLA	1-3	---	---
thelypody	THELY	---	2-4	---
tufted eveningprimrose	OECE2	1-3	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35
basin big sagebrush	ARTRT	25-30	---	---
big sagebrush	ARTR2	---	10-25	---
black greasewood	SAVE4	---	20-30	---
fourwing saltbush	ATCA2	2-8	---	---
spiny hopsage	GRSP	2-8	5-15	5-15
Range site number		024XY001NV	024XY022NV	024XY020NV
Potential production (lb/acre):				
Favorable years		800	800	700
Normal years		500	600	450
Unfavorable years		300	350	300

271--GOLDRUN LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		GOLDRUN	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	30-40	5-15	---	2-5
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STTH2	---	15-25	---	---
basin wildrye	ELCI2	2-8	---	5-15	5-20
bottlebrush squirreltail	SIHY	---	2-5	---	2-5
inland saltgrass	DISPS2	---	---	5-10	---
needleandthread	STCO4	5-15	---	---	---
thickspike wheatgrass	AGDA	5-10	---	---	---
canadagre	RUHY	1-3	---	---	---
globemallow	SPHAE	---	1-2	---	1-2
lemon scurfpea	PSLA	1-3	---	---	---
thelypody	THELY	---	---	---	2-4
tufted eveningprimrose	OECE2	1-3	---	---	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---
basin big sagebrush	ARTRT	25-30	---	---	---
big sagebrush	ARTR2	---	---	---	10-25
black greasewood	SAVE4	---	---	60-75	20-30
fourwing saltbush	ATCA2	2-8	---	---	---
spiny hopsage	GRSP	2-8	5-15	---	5-15
Range site number		024XY001NV	024XY020NV	024XY011NV	024XY022NV
Potential production (lb/acre):					
Favorable years		800	700	500	800
Normal years		500	450	350	600
Unfavorable years		300	300	200	350

272--GOLDRUN LOAMY FINE SAND, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		GOLDRUN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	30-40	5-15	2-5	5-15	---
Sandberg bluegrass	POSE	---	2-8	---	---	---
Thurber needlegrass	STTH2	---	15-25	---	---	---
basin wildrye	ELCI2	2-8	---	5-20	---	5-15
bottlebrush squirreltail	SIHY	---	2-5	---	5-10	---
inland saltgrass	DISPS2	---	---	---	---	5-10
needleandthread	STCO4	5-15	---	---	---	---
thickspike wheatgrass	AGDA	5-10	---	---	---	---
canaigre	RUHY	1-3	---	---	---	---
globemallow	SPHAE	---	1-2	1-2	---	---
lemon scurfpea	PSLA	1-3	---	---	---	---
thelypody	THELY	---	---	2-4	---	---
tufted eveningprimrose	OECE2	1-3	---	---	---	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---	---
basin big sagebrush	ARTRT	25-30	---	---	---	---
big sagebrush	ARTR2	---	---	10-25	---	---
black greasewood	SAVE4	---	---	20-30	---	60-75
bud sagebrush	ARSP5	---	---	---	---	---
fourwing saltbush	ATCA2	2-8	---	---	---	---
shadscale	ATCO	---	---	---	30-40	---
spiny hopsage	GRSP	2-8	5-15	5-15	2-5	---
winterfat	EULA5	---	---	---	2-5	---

Range site number	024XY001NV	024XY020NV	024XY022NV	024XY002NV	024XY011NV
Potential production (lb/acre):					
Favorable years	800	700	800	750	500
Normal years	500	450	600	450	350
Unfavorable years	300	300	350	300	200

274--GOLDRUN-BENIN COMPLEX, 0 TO 15 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		GOLDRUN	BENIN	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	30-40	5-15	5-15	5-15	2-5
Sandberg bluegrass	POSE	---	---	2-8	2-8	---
Thurber needlegrass	STTH2	---	---	15-25	15-25	---
basin wildrye	ELCI2	2-8	---	---	---	5-20
bottlebrush squirreltail	SIHY	---	5-10	2-5	2-5	2-5
needleandthread	STCO4	5-15	---	---	---	---
thickspike wheatgrass	AGDA	5-10	---	---	---	---
canadagre	RUHY	1-3	---	---	---	---
globemallow	SPHAE	---	---	1-2	1-2	1-2
lemon scurfpea	PSLA	1-3	---	---	---	---
thelypody	THELY	---	---	---	---	2-4
tufted eveningprimrose	OECE2	1-3	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35	25-35	---
basin big sagebrush	ARTRT	25-30	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-25
black greasewood	SAVE4	---	---	---	---	20-30
bud sagebrush	ARSP5	---	20-30	---	---	---
fourwing saltbush	ATCA2	2-8	---	---	---	---
shadscale	ATCO	---	30-40	---	---	---
spiny hopsage	GRSP	2-8	2-5	5-15	5-15	5-15
winterfat	EULAS	---	2-5	---	---	---

Range site number	024XY001NV	024XY002NV	024XY020NV	024XY020NV	024XY022NV
Potential production (lb/acre):					
Favorable years	800	750	700	700	800
Normal years	500	450	450	450	600
Unfavorable years	300	300	300	300	350

275--GOLDUN-PREBLE COMPLEX, 0 TO 15 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		GOLDRUN	PREBLE	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	30-40	---	---	2-5
basin wildrye	ELCI2	2-8	5-15	55-65	5-20
bottlebrush squirreltail	SIHY	---	---	---	2-5
creeping wildrye	ELTR3	---	---	5-15	---
inland saltgrass	DISPS2	---	5-10	---	---
needleandthread	STCO4	5-15	---	---	---
thickspike wheatgrass	AGDA	5-10	---	---	---
western wheatgrass	AGSM	---	---	5-15	---
canaigre	RUHY	1-3	---	---	---
globemallow	SPHAE	---	---	---	1-2
lemon scurfpea	PSLA	1-3	---	---	---
thelypody	THELY	---	---	---	2-4
tufted eveningprimrose	OECE2	1-3	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	25-30	---	10-15	---
big sagebrush	ARTR2	---	---	---	10-25
black greasewood	SAVE4	---	60-75	2-8	20-30
fourwing saltbush	ATCA2	2-8	---	---	---
spiny hopsage	GRSP	2-8	---	---	5-15
Range site number		024XY001NV	024XY011NV	024XY006NV	024XY022NV
Potential production (lb/acre):					
Favorable years		800	500	1500	800
Normal years		500	350	1100	600
Unfavorable years		300	200	600	350

281--GOLSUM-SPINLIN-HARCANY ASSOCIATION

[An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		GOLSUM	SPINLIN	HARCANY	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Columbia needlegrass	STNE3	---	---	5-10	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Idaho fescue	FEID	---	20-40	5-10	15-25	---	X
Indian ricegrass	ORHY	---	---	---	---	X	---
Nevada bluegrass	PONE3	---	---	2-5	---	---	X
Sandberg bluegrass	POSE	---	---	---	---	X	---
Thurber needlegrass	STTH2	2-5	2-8	---	---	X	---
Webber ricegrass	STWE	---	---	---	2-5	---	---
basin wildrye	ELCI2	5-10	---	---	---	---	---
bluebunch wheatgrass	AGSP	30-50	10-20	5-10	2-5	X	---
bluegrass	POA++	---	2-8	---	5-10	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	X	---
milkvetch	ASTRA	---	---	---	---	X	---
mountain brome	BRCA5	2-15	---	15-30	---	---	X
phlox	PHLOX	---	---	---	---	X	---
pine bluegrass	POSC	---	---	---	---	---	---
rush	JUNCU	---	---	---	---	---	X
sedge	CAREX	---	---	---	---	---	X
slender wheatgrass	AGTR	---	---	5-10	---	---	X
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---
groundsel	SENEC	---	---	---	---	---	X
lupine	LUPIN	2-5	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---
yarrow	ACHIL	---	---	---	---	---	X
Woods rose	ROWO	---	---	---	---	---	X
Wyoming big sagebrush	ARTRW	---	---	---	---	X	---
antelope bitterbrush	PUTR2	---	---	---	---	X	---
black sagebrush	ARARN	---	---	---	---	---	---
low sagebrush	ARAR8	---	20-30	---	---	---	---
mountain big sagebrush	ARVA2	10-20	---	10-20	---	---	---
sagebrush	ARTEM	---	---	---	25-40	---	---
serviceberry	AMELA	---	---	2-10	---	---	---
snowberry	SYMPH	---	---	2-5	---	---	---
Utah juniper	JUOS	---	---	---	---	X	---
quaking aspen	POTRT	---	---	---	---	---	X

Range site number	024XY029NV	024XY027NV	024XY032NV	024XY016NV	none	025XY059NV	025XY064NV
Potential production (lb/acre):							
Favorable years	1500	1200	2200	350		500	1600
Normal years	1100	800	1700	250		350	1300
Unfavorable years	800	600	1200	150		200	1000

290--HAVINGDON-BURRITA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		HAVINGDON	BURRITA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Indian ricegrass	ORHY	---	---	---	2-5	---	5-15
Nevada bluegrass	PONE3	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	2-8
Thurber needlegrass	STH2	20-30	40-50	10-20	---	5-15	15-25
basin wildrye	ELCI2	---	---	2-8	---	2-5	---
bluebunch wheatgrass	AGSP	20-35	2-10	20-35	---	40-60	---
bluegrass	POA++	---	---	2-10	---	2-8	---
bottlebrush squirreltail	SIHY	---	---	---	2-10	---	2-5
desert needlegrass	STSP3	---	---	---	2-10	---	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	2-5	---
globemallow	SPHAE	---	1-3	---	---	---	1-2
tapertip hawksbeard	CRAC2	2-5	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---	---	25-35
antelope bitterbrush	PUTR2	---	---	2-8	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	15- 25	---	10-15	---	15-25	---
bud sagebrush	ARSP5	---	---	---	15-30	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
shadscale	ATCO	---	---	---	30-50	---	---
spiny hopsage	GRSP	---	2-5	---	---	---	5-15

Range site number	024XY035NV	024XY005NV	025XY014NV	024XY025NV	024XY028NV	024XY020NV
Potential production (lb/acre):						
Favorable years	500	800	1000	250	1000	700
Normal years	400	600	800	150	700	450
Unfavorable years	250	400	600	75	500	300

292--HAVINGDON-GOWJAI-WALTI ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		HAVINGDON	GOWJAI	WALTI	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	---	20-40	---	---	15-25	---	---
Sandberg bluegrass	POSE	---	---	2-10	---	---	---	---
Thurber needlegrass	STTH2	20-30	2-8	10-20	---	---	2-5	40-50
Webber ricegrass	STWE	---	---	5-10	---	2-5	---	---
basin wildrye	ELCI2	---	2-15	---	---	---	5-10	---
bluebunch wheatgrass	AGSP	20-35	20-40	20-30	---	2-5	30-50	2-10
bluegrass	POA++	---	---	---	---	5-10	---	---
mountain brome	BRCA5	---	---	---	---	---	2-15	---
pine bluegrass	POSC	---	---	---	---	---	---	---
arrowleaf balsamroot	BASA3	2-5	1-5	---	---	---	2-5	---
balsamroot	BALSA	---	---	2-5	---	---	---	---
globemallow	SPHAE	---	---	---	---	---	---	1-3
goldenweed	HAPLO2	---	---	---	---	2-5	---	---
helianthella	HELIA	---	1-2	---	---	---	---	---
lupine	LUPIN	---	---	---	---	---	2-5	---
tapertip hawksbeard	CRAC2	2-5	1-5	---	---	---	2-5	---
white stoneseed	LIRU4	---	1-2	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	25-35
big sagebrush	ARTR2	15- 25	---	---	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	25-35	---	---	---	---
mountain big sagebrush	ARVA2	---	15-25	---	---	---	10-20	---
sagebrush	ARTEM	---	---	---	---	25-40	---	---
spiny hopsage	GRSP	---	---	---	---	---	---	2-5

Range site number	024XY035NV	024XY021NV	025XY022NV	none	024XY016NV	024XY029NV	024XY005NV
Potential production (lb/acre):							
Favorable years	500	1400	600		350	1500	800
Normal years	400	1000	400		250	1100	600
Unfavorable years	250	700	250		150	800	400

302--ESSAL-PLAYAS-ISOLDE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ESSAL	PLAYAS	ISOLDE	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	20-30	---	2-5	---
basin wildrye	ELCI2	---	---	---	---	5-20	---
bottlebrush squirreltail	SIHY	5-10	---	---	5-10	2-5	2-10
needleandthread	STCO4	---	---	5-15	---	---	---
globemallow	SPHAE	---	---	---	---	1-2	---
thelypody	THELY	---	---	---	---	2-4	---
Nevada dalea	PAPO	---	---	2-8	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-25	---
black greasewood	SAVE4	15-30	---	---	15-30	20-30	---
bud sagebrush	ARSP5	2-8	---	---	2-8	---	---
fourwing saltbush	ATCA2	---	---	15-25	---	---	---
hairy horsebrush	TECO2	---	---	25-35	---	---	---
littleleaf horsebrush	TEGL	---	---	2-5	---	---	---
seepweed	SUAED	2-8	---	---	2-8	---	---
shadscale	ATCO	30-50	---	---	30-50	---	75-85
spiny hopsage	GRSP	---	---	---	---	5-15	---
Range site number		024XY003NV	none	027XY023NV	024XY003NV	024XY022NV	024XY067NV
Potential production (lb/acre):							
Favorable years		600		700	600	800	300
Normal years		450		500	450	600	200
Unfavorable years		300		300	300	350	75

305--ESSAL-ISOLDE-HAWSLEY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ESSAL	ISOLDE	HAWSLEY	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	50-70	20-30	50-70	15-30	5-15	---
basin wildrye	ELCI2	---	---	---	5-10	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	5-10	---
needleandthread	STCO4	5-15	5-15	5-15	30-40	---	---
Nevada dalea	PSPO	0-5	---	0-5	---	---	---
Nevada dalea	PAPO	---	2-8	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	15-25	---	---
bud sagebrush	ARSP5	---	---	---	---	20-30	---
fourwing saltbush	ATCA2	10-20	15-25	10-20	---	---	---
hairy horsebrush	TECO2	---	25-35	---	---	---	---
littleleaf horsebrush	TEGL	---	2-5	---	---	---	---
shadscale	ATCO	---	---	---	---	30-40	---
spiny hopsage	GRSP	2-5	---	2-5	1-5	2-5	---
winterfat	EULA5	2-8	---	2-8	---	2-5	---
Range site number		027XY009NV	027XY023NV	027XY009NV	024XY017NV	024XY002NV	none
Potential production (lb/acre):							
Favorable years		700	700	700	900	750	
Normal years		450	500	450	700	450	
Unfavorable years		250	300	250	500	300	

307--ESSAL-TRESED-ISOLDE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		ESSAL	TRESED	ISOLDE	Inclusion 1
Indian ricegrass	ORHY	50-70	50-70	20-30	---
needleandthread	STCO4	5-15	5-15	5-15	---
Nevada dalea	PSPO	0-5	0-5	---	---
Nevada dalea	PAP0	---	---	2-8	---
fourwing saltbush	ATCA2	10-20	10-20	15-25	---
hairy horsebrush	TECO2	---	---	25-35	---
littleleaf horsebrush	TEGL	---	---	2-5	---
spiny hopsage	GRSP	2-5	2-5	---	---
winterfat	EULA5	2-8	2-8	---	---
Range site number		027XY009NV	027XY009NV	027XY023NV	none
Potential production (lb/acre):					
Favorable years		700	700	700	
Normal years		450	450	500	
Unfavorable years		250	250	300	

311--HARCANY-CROESUS-HACKWOOD ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		HARCANY	CROESUS	HACKWOOD	Inclusion 1	Inclusion 2	Inclusion 3
Columbia needlegrass	STNE3	---	5-15	---	2-5	---	---
Cusick bluegrass	POCU3	---	5-10	---	---	---	---
Idaho fescue	FEID	2-10	10-20	X	---	---	---
Letterman needlegrass	STLE4	2-5	5-15	---	60-70	---	---
Nevada bluegrass	PONE3	2-5	---	X	---	---	---
big squirreltail	SIJU	---	---	X	---	---	---
blue wildrye	ELGL	2-5	---	---	---	---	---
bluebunch wheatgrass	AGSP	2-5	2-5	---	---	---	---
bluegrass	POA++	---	---	---	---	5-10	---
mannagrass	GLYCE	---	---	---	---	5-10	---
meadow barley	HOBR2	---	---	---	---	5-10	---
melic	MELIC	---	---	X	---	---	---
mountain brome	BRCA5	5-15	---	X	---	---	---
needlegrass	STIPA	---	5-15	---	---	---	---
purple oniongrass	MESP	2-5	---	---	---	---	---
rush	JUNCU	---	---	---	---	5-10	---
sedge	CAREX	---	---	---	---	5-10	---
slender wheatgrass	AGTR	5-15	---	X	2-5	---	---
tufted hairgrass	DECE	---	---	---	---	30-50	---
carrotleaf lomatium	LODIM	2-5	---	---	---	---	---
clover	TRIFO	2-5	---	---	---	---	---
geranium	GERAN	2-10	---	---	---	---	---
groundsel	SENEC	2-10	---	---	---	---	---
horsemint giant hyssop	AGUR	2-5	---	---	---	---	---
meadowrue	THALI2	---	---	X	---	---	---
tailcup lupine	LUCA	---	---	---	20-40	---	---
antelope bitterbrush	PUTR2	2-5	---	---	---	---	---
common chokecherry	PRVI	2-5	---	---	---	---	---
elderberry	SAMBU	2-5	---	---	---	---	---
mountain big sagebrush	ARVA2	---	15-25	X	---	---	---
quaking aspen	POTRT	2-5	---	X	---	---	---
snowberry	SYMPH	2-10	---	X	---	---	---
quaking aspen	POTRT	2-5	---	X	---	---	---

Range site number	023XY065NV	023XY061NV	023XY028NV	023XY062NV	023XY025NV	none
Potential production (lb/acre):						
Favorable years	2600	900	600	1000	4000	
Normal years	1800	700	400	800	3000	
Unfavorable years	1400	500	250	500	2000	

312--HARCANY-HACKWOOD-CLEAVAGE ASSOCIATION

[An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		HARCANY	HACKWOOD	CLEAVAGE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	5-10	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	5-10	X	15-25	---	---	---	X
Letterman needlegrass	STLE4	---	---	---	---	---	40-60	---
Nevada bluegrass	PONE3	2-5	---	---	---	---	---	X
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STTH2	---	---	---	2-5	---	---	---
Webber ricegrass	STWE	---	---	2-5	---	---	---	---
basin wildrye	ELCI2	---	---	---	5-10	---	---	---
bluebunch wheatgrass	AGSP	5-10	---	2-5	30-50	---	---	---
bluegrass	POA++	---	---	5-10	---	---	---	---
horsemint giant hyssop	AGUR	---	X	---	---	---	---	---
mountain brome	BRCA5	15-30	X	---	2-15	---	---	X
pine bluegrass	POSC	---	---	---	---	---	---	---
rush	JUNCU	---	---	---	---	---	---	X
sedge	CAREX	---	---	---	---	---	---	X
slender wheatgrass	AGTR	5-10	X	---	---	---	---	X
arrowleaf balsamroot	BASA3	---	---	---	2-5	---	---	---
goldenweed	HAPLO2	---	---	2-5	---	---	---	---
groundsel	SENEC	---	X	---	---	---	---	X
lupine	LUPIN	---	---	---	2-5	---	---	---
tailcup lupine	LUCA	---	---	---	---	---	20-40	---
tapertip hawksbeard	CRAC2	---	---	---	2-5	---	---	---
yarrow	ACHIL	---	---	---	---	---	---	X
Utah serviceberry	AMUT	---	X	---	---	---	---	---
Woods rose	ROWO	---	---	---	---	---	---	X
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARARB	---	---	---	---	---	---	---
mountain big sagebrush	ARVA2	10-20	---	---	10-20	---	---	---
sagebrush	ARTEM	---	---	25-40	---	---	---	---
serviceberry	AMELA	2-10	---	---	---	---	---	---
snowberry	SYMPH	2-5	X	---	---	---	---	---
quaking aspen	POTRT	---	X	---	---	---	---	X

Range site number	024XY032NV	025XY065NV	024XY016NV	024XY029NV	none	025XY028NV	025XY064NV
Potential production (lb/acre):							
Favorable years	2200	800	350	1500		1700	1600
Normal years	1700	600	250	1100		1400	1300
Unfavorable years	1200	400	150	800		1100	1000

321--HUMBOLDT SILTY CLAY LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		HUMBOLDT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Nevada bluegrass	PONE3	5-15	5-15	---	---	---
alkali bluegrass	POJU	---	---	5-15	---	---
alkali cordgrass	SPGR	---	---	5-10	---	---
alkali muhly	MUAS	---	---	10-20	---	---
alkali sacaton	SPA1	---	---	15-40	---	5-15
basin wildrye	ELCI2	---	---	2-5	55-65	50-60
creeping wildrye	ELTR3	---	---	---	5-15	---
inland saltgrass	DISPS2	2-5	2-5	5-10	---	2-8
mat muhly	MURI	2-5	2-5	---	---	---
sedge	CAREX	2-10	2-10	---	---	---
western wheatgrass wildrye	AGSM	---	---	---	5-15	---
arrowgrass	ELYMU	60-80	60-80	---	---	---
basin big sagebrush	TRIGL	---	---	1-3	---	---
black greasewood	ARTRT	---	---	---	10-15	---
rubber rabbitbrush	SAVE4	---	---	---	2-8	5-15
willow	CHNA2	---	---	---	---	2-5
	SALIX	5-10	5-10	---	---	---

Range site number	025XY001NV	025XY001NV	024XY009NV	024XY006NV	024XY007NV
Potential production (lb/acre):					
Favorable years	3500	3500	1500	1500	1900
Normal years	2500	2500	1000	1100	1400
Unfavorable years	1800	1800	700	600	800

322--HUMBOLDT SILTY CLAY LOAM, STRONGLY SALINE

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		HUMBOLDT	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	5-15	5-15
alkali sacaton	SPAI	5-15	5-15	---	---
basin wildrye	ELCI2	50-60	50-60	---	---
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	2-8	2-8	2-5	2-5
mat muhly	MURI	---	---	2-5	2-5
sedge	CAREX	---	---	2-10	2-10
wildrye	ELYMU	---	---	60-80	60-80
black greasewood	SAVE4	5-15	5-15	---	---
rubber rabbitbrush	CHNA2	2-5	2-5	---	---
willow	SALIX	---	---	5-10	5-10

Range site number	024XY007NV	024XY007NV	025XY001NV	025XY001NV
Potential production (lb/acre):				
Favorable years	1900	1900	3500	3500
Normal years	1400	1400	2500	2500
Unfavorable years	800	800	1800	1800

325--HUMBOLDT-WENDANE COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		HUMBOLDT	WENDANE	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-15	---	---	---
alkali bluegrass	POJU	---	---	---	---
alkali cordgrass	SPGR	---	---	---	5-15
alkali muhly	MUAS	---	---	---	5-10
alkali sacaton	SPAI	---	---	5-15	10-20
basin wildrye	ELCI2	---	5-15	50-60	15-40
creeping wildrye	ELTR3	---	---	---	2-5
inland saltgrass	DISPS2	2-5	5-10	2-8	5-10
mat muhly	MURI	2-5	---	---	---
sedge	CAREX	2-10	---	---	---
wildrye	ELYMU	60-80	---	---	---
arrowgrass	TRIGL	---	---	---	1-3
black greasewood	SAVE4	---	60-75	5-15	---
rubber rabbitbrush	CHNA2	---	---	2-5	---
willow	SALIX	5-10	---	---	---

Range site number	025XY001NV	024XY011NV	024XY007NV	024XY009NV
Potential production (lb/acre):				
Favorable years	3500	500	1900	1500
Normal years	2500	350	1400	1000
Unfavorable years	1800	200	800	700

330--MCCONNEL FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		MCCONNEL	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	5-15
Sandberg bluegrass	POSE	2-8	2-8	2-8
Thurber needlegrass	STH2	15-25	15-25	15-25
bottlebrush squirreltail	SIHY	2-5	2-5	2-5
globemallow	SPHAE	1-2	1-2	1-2
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35
spiny hopsage	GRSP	5-15	5-15	5-15
Range site number		024XY020NV	024XY020NV	024XY020NV
Potential production (lb/acre):		700	700	700
Favorable years		450	450	450
Normal years		450	450	450
Unfavorable years		300	300	300

331--MCCONNEL GRAVELLY FINE SANDY LOAM, 2 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		MCCONNEL	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	5-15
Sandberg bluegrass	POSE	2-8	2-8	2-8
Thurber needlegrass	STTH2	15-25	15-25	15-25
bottlebrush squirreltail	SIHY	2-5	2-5	2-5
globemallow	SPHAE	1-2	1-2	1-2
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35
spiny hopsage	GRSP	5-15	5-15	5-15
Range site number		024XY020NV	024XY020NV	024XY020NV
Potential production (lb/acre):				
Favorable years		700	700	700
Normal years		450	450	450
Unfavorable years		300	300	300

333--MCCONNEL-SHABLISS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		MCCONNEL	SHABLISS	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	5-15	---
Sandberg bluegrass	POSE	2-8	2-8	2-8	---
Thurber needlegrass	STTH2	15-25	15-25	15-25	40-50
bluebunch wheatgrass	AGSP	---	---	---	2-10
bottlebrush squirreltail	SIHY	2-5	2-5	2-5	---
globemallow	SPHAE	1-2	1-2	1-2	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	5-15	5-15	5-15	2-5
Range site number		024XY020NV	024XY020NV	024XY020NV	024XY005NV
Potential production (lb/acre):					
Favorable years		700	700	700	800
Normal years		450	450	450	600
Unfavorable years		300	300	300	400

335--MCCONNEL VERY GRAVELLY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		MCCONNEL	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	---	---
Sandberg bluegrass	POSE	2-8	---	---
Thurber needlegrass	STTH2	15-25	---	40-50
basin wildrye	ELCI2	---	55-65	---
bluebunch wheatgrass	AGSP	---	---	2-10
bottlebrush squirreltail	SIHY	2-5	---	---
creeping wildrye	ELTR3	---	5-15	---
western wheatgrass	AGSM	---	5-15	---
globemallow	SPHAE	1-2	---	1-3
Wyoming big sagebrush	ARTRW	25-35	---	25-35
basin big sagebrush	ARTRT	---	10-15	---
black greasewood	SAVE4	---	2-8	---
spiny hopsage	GRSP	5-15	---	2-5

Range site number	024XY020NV	024XY006NV	024XY005NV
Potential production (lb/acre):			
Favorable years	700	1500	800
Normal years	450	1100	600
Unfavorable years	300	600	400

338--MCCONNEL-PUMPER-WHIRLO COMPLEX, 2 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		MCCONNEL	PUMPER	WHIRLO	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Indian ricegrass	ORHY	5-15	5-15	5-15	---	---	5-15
Sandberg bluegrass	POSE	2-8	---	---	---	---	2-8
Thurber needlegrass	STTH2	15-25	---	---	20-30	---	15-25
basin wildrye	ELCI2	---	---	---	2-5	---	---
bluebunch wheatgrass	AGSP	---	---	---	30-40	---	---
bluegrass	POA++	---	---	---	2-8	---	---
bottlebrush squirreltail	SIHY	2-5	5-10	5-10	---	5-10	2-5
globemallow	SPHAE	1-2	---	---	---	---	1-2
Wyoming big sagebrush	ARTRW	25-35	---	---	---	---	25-35
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	10-15	---	---
black greasewood	SAVE4	---	---	---	---	15-30	---
bud sagebrush	ARSP5	---	20-30	20-30	---	2-8	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
seepweed	SUAED	---	---	---	---	2-8	---
shadscale	ATCO	---	30-40	30-40	---	30-50	---
spiny hopsage	GRSP	5-15	2-5	2-5	---	---	5-15
winterfat	EULA5	---	2-5	2-5	---	---	---
Range site number		024XY020NV	024XY002NV	024XY002NV	024XY013NV	024XY003NV	024XY020NV
Potential production (lb/acre):							
Favorable years		700	750	750	1000	600	700
Normal years		450	450	450	800	450	450
Unfavorable years		300	300	300	600	300	300

340--BOGER-SOUGHE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BOGER	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	5-15	---	---
Nevada bluegrass	PONE3	---	---	---	5-10	---
Sandberg bluegrass	POSE	---	---	2-8	---	---
Thurber needlegrass	STH2	40-50	40-50	15-25	---	---
basin wildrye	ELCI2	---	---	---	60-70	---
bluebunch wheatgrass	AGSP	2-10	2-10	---	---	---
bottlebrush squirreltail	SIHY	---	---	2-5	---	---
mat muhly	MURI	---	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---
globemallow	SPHAE	1-3	1-3	1-2	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	5-10	---
spiny hopsage	GRSP	2-5	2-5	5-15	---	---
Range site number		024XY005NV	024XY005NV	024XY020NV	025XY003NV	none
Potential production (lb/acre):						
Favorable years		800	800	700	4500	
Normal years		600	600	450	3500	
Unfavorable years		400	400	300	2000	

342--ROGER-GOOSEL-SOUGHE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROGER	GOOSEL	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	---	5-15	25-35	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	2-8	---	---	---	---
Thurber needlegrass	STTH2	40-50	40-50	15-25	5-10	---	20-30	---
basin wildrye	ELCI2	---	---	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	2-10	2-10	---	---	---	20-35	---
bottlebrush squirreltail	SIHY	---	---	2-5	---	---	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	---	---	---	---	2-5	---
globemallow	SPHAE	1-3	1-3	1-2	2-4	---	---	---
tapertip hawksbeard	CRAC2	---	---	---	---	---	2-5	---
Douglas rabbitbrush	CHVIB	---	---	---	2-5	---	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	---	---	---	15- 25	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
shadscale	ATCO	---	---	---	2-5	---	---	---
spiny hopsage	GRSP	2-5	2-5	5-15	2-5	---	---	---

Range site number	024XY005NV	024XY005NV	024XY020NV	024XY045NV	none	024XY035NV	025XY003NV
Potential production (lb/acre):							
Favorable years	800	800	700	350		500	4500
Normal years	600	600	450	200		400	3500
Unfavorable years	400	400	300	100		250	2000

343--BOGER COBBLY SILT LOAM, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BOGER	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	---	---	---	5-15
Nevada bluegrass	PONE3	---	---	---	5-10	---
Sandberg bluegrass	POSE	2-8	2-5	2-10	---	---
Thurber needlegrass	STTH2	15-25	15-25	10-20	---	---
Webber ricegrass	STWE	---	---	5-10	---	---
basin wildrye	ELCI2	---	---	---	60-70	---
bluebunch wheatgrass	AGSP	---	25-40	20-30	---	---
bottlebrush squirreltail	SIHY	2-5	---	---	---	5-10
mat muhly	MURI	---	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---
balsamroot	BALSA	---	---	2-5	---	---
globemallow	SPHAE	1-2	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	15-25	---	---	---
basin big sagebrush	ARTRT	---	---	---	5-10	---
bud sagebrush	ARSP5	---	---	---	---	20-30
low sagebrush	ARAR8	---	---	25-35	---	---
shadscale	ATCO	---	---	---	---	30-40
spiny hopsage	GRSP	5-15	---	---	---	2-5
winterfat	EULAS	---	---	---	---	2-5

Range site number	024XY020NV	025XY019NV	025XY022NV	025XY003NV	024XY002NV
Potential production (lb/acre):					
Favorable years	700	800	600	4500	750
Normal years	450	600	400	3500	450
Unfavorable years	300	400	250	2000	300

351--GOLDRUN-PRIDEEN-PLAYAS COMPLEX, 0 TO 15 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		GOLDRUN	PRIDEEN	PLAYAS	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	25-35	---	---	2-5	---	---
basin wildrye	ELCI2	2-5	5-15	---	5-20	---	---
bottlebrush squirreltail	SIHY	---	---	---	2-5	---	5-10
inland saltgrass	DISPS2	---	5-10	---	---	60-90	---
needleandthread	STCO4	5-10	---	---	---	---	---
globemallow	SPHAE	---	---	---	1-2	---	---
other perennial forbs	PPFF	---	---	---	---	1-2	---
thelypody	THELY	---	---	---	2-4	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	10-25	---	---
black greasewood	SAVE4	35-45	60-75	---	20-30	---	15-30
bud sagebrush	ARSP5	---	---	---	---	---	2-8
seepweed	SUAED	---	---	---	---	---	2-8
shadscale	ATCO	---	---	---	---	---	30-50
spiny hopsage	GRSP	5-15	---	---	5-15	---	---
Range site number		024XY066NV	024XY011NV	none	024XY022NV	026XY002NV	024XY003NV
Potential production (lb/acre):							
Favorable years		600	500		800	2000	600
Normal years		400	350		600	1700	450
Unfavorable years		250	200		350	1200	300

352--GOLDRUN-KLECK-DAVEY COMPLEX, 0 TO 15 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		GOLDRUN	KLECK	DAVEY	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	30-40	15-30	15-30	---	15-30
basin wildrye	ELCI2	2-8	5-10	5-10	---	5-10
bottlebrush squirreltail	SIHY	---	---	---	5-10	---
needleandthread	STCO4	5-15	30-40	30-40	---	30-40
thickspike wheatgrass	AGDA	5-10	---	---	---	---
cansigre	RUHY	1-3	---	---	---	---
lemon scurfpea	PSLA	1-3	---	---	---	---
tufted eveningprimrose	OECE2	1-3	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---
basin big sagebrush	ARTRT	25-30	---	---	---	---
big sagebrush	ARTR2	---	15-25	15-25	---	15-25
black greasewood	SAVE4	---	---	---	15-30	---
bud sagebrush	ARSP5	---	---	---	2-8	---
fourwing saltbush	ATCA2	2-8	---	---	---	---
seepweed	SUAED	---	---	---	2-8	---
shadscale	ATCO	---	---	---	30-50	---
spiny hopsage	GRSP	2-8	1-5	1-5	---	1-5

Range site number	024XY001NV	024XY017NV	024XY017NV	024XY003NV	024XY017NV
Potential production (lb/acre):					
Favorable years	800	900	900	600	900
Normal years	500	700	700	450	700
Unfavorable years	300	500	500	300	500

360--NEEDLE PEAK SILT LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		NEEDLE PEAK	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	---	---	5-15	---
alkali sacaton	SPAI	---	5-15	---	---	---
basin wildrye	ELCI2	55-65	50-60	---	---	5-15
bottlebrush squirreltail	SIHY	---	---	5-10	5-10	---
creeping wildrye	ELTR3	5-15	---	---	---	---
inland saltgrass	DISPS2	---	2-8	---	---	5-10
western wheatgrass	AGSM	5-15	---	---	---	---
basin big sagebrush	ARTRT	10-15	---	---	---	---
black greasewood	SAVE4	2-8	5-15	15-30	---	60-75
bud sagebrush	ARSP5	---	---	2-8	20-30	---
rubber rabbitbrush	CHNA2	---	2-5	---	---	---
seepweed	SUAED	---	---	2-8	---	---
shadscale	ATCO	---	---	30-50	30-40	---
spiny hopsage	GRSP	---	---	---	2-5	---
winterfat	EULA5	---	---	---	2-5	---

Range site number	024XY006NV	024XY007NV	024XY003NV	024XY002NV	024XY011NV
Potential production (lb/acre):					
Favorable years	1500	1900	600	750	500
Normal years	1100	1400	450	450	350
Unfavorable years	600	800	300	300	200

363--NEEDLE PEAK-BATAN-GOLDRUN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		NEEDLE PEAK	BATAN	GOLDRUN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	2-5	30-40	15-30	---
basin wildrye	ELCI2	55-65	5-20	2-8	5-10	---
bottlebrush squirreltail	SIHY	---	2-5	---	---	5-10
creeping wildrye	ELTR3	5-15	---	---	---	---
needleandthread	STCO4	---	---	5-15	30-40	---
thickspike wheatgrass	AGDA	---	---	5-10	---	---
western wheatgrass	AGSM	5-15	---	---	---	---
canaigre	RUHY	---	---	1-3	---	---
globemallow	SPHAE	---	1-2	---	---	---
lemon scurfpea	PSLA	---	---	1-3	---	---
thelypody	THELY	---	2-4	---	---	---
tufted eveningprimrose	OECE2	---	---	1-3	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---
basin big sagebrush	ARTRT	10-15	---	25-30	---	---
big sagebrush	ARTR2	---	10-25	---	15-25	---
black greasewood	SAVE4	2-8	20-30	---	---	15-30
bud sagebrush	ARSP5	---	---	---	---	2-8
fourwing saltbush	ATCA2	---	---	2-8	---	---
seepweed	SUAED	---	---	---	---	2-8
shadscale	ATCO	---	---	---	---	30-50
spiny hopsage	GRSP	---	5-15	2-8	1-5	---
Range site number		024XY006NV	024XY022NV	024XY001NV	024XY017NV	024XY003NV
Potential production (lb/acre):						
Favorable years		1500	800	800	900	600
Normal years		1100	600	500	700	450
Unfavorable years		600	350	300	500	300

370--WIELAND ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		WIELAND	WIELAND	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Indian ricegrass	ORHY	---	---	---	5-15	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---
Sandberg bluegrass	POSE	2-5	2-5	---	2-8	---	---
Thurber needlegrass	STH2	15-25	15-25	20-30	15-25	10-20	---
basin wildrye	ELCI2	---	---	---	---	2-8	---
bluebunch wheatgrass	AGSP	25-40	25-40	20-35	---	20-35	---
bluegrass	POA++	---	---	---	---	2-10	---
bottlebrush squirreltail	SIHY	---	---	---	2-5	---	---
arrowleaf balsamroot	BASA3	---	---	2-5	---	---	---
globemallow	SPHAE	---	---	---	1-2	---	---
tapertip hawksbeard	CRAC2	---	---	2-5	---	---	---
Wyoming big sagebrush	ARTRW	15-25	15-25	---	25-35	---	---
antelope bitterbrush	PUTR2	---	---	---	---	2-8	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	15- 25	---	10-15	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
spiny hopsage	GRSP	---	---	---	5-15	---	---
Range site number		025XY019NV	025XY019NV	024XY035NV	024XY020NV	025XY014NV	none
Potential production (lb/acre):							
Favorable years		800	800	500	700	1000	
Normal years		600	600	400	450	800	
Unfavorable years		400	400	250	300	600	

380--BULLUMP-TUSEL ASSOCIATION

(An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community)

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BULLUMP	TUSEL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	2-5	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	5-15	---	---
Idaho fescue	FEID	2-10	2-10	15-30	---	---	X
Letterman needlegrass	STLE4	2-5	---	---	---	---	---
Nevada bluegrass	PONE3	2-5	2-5	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	2-5	---	---
basin wildrye	ELCI2	5-15	---	---	---	---	---
bluebunch wheatgrass	AGSP	30-50	2-5	---	---	---	---
bluegrass	POA++	---	---	5-15	---	---	---
fescue	FESTU	---	---	---	50-70	---	---
horsemint giant hyssop	AGUR	---	---	---	---	---	X
mountain brome	BRCA5	20-40	5-15	---	---	---	X
sheep fescue	FEOV	---	---	---	---	---	---
slender wheatgrass	AGTR	---	5-15	---	---	---	X
spike-fescue	LEKI2	2-5	2-10	---	---	---	---
balsamroot	BALSA	---	---	---	2-5	---	---
carrotleaf lomatium	LODIM	---	2-5	---	---	---	---
geranium	GERAN	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	2-5	---	---	---
groundsel	SENEC	---	2-5	---	---	---	X
tapertip hawkbeard	CRAC2	---	---	---	2-5	---	---
Utah serviceberry	AMUT	---	1-5	---	---	---	X
Wyoming big sagebrush	ARTRW	---	---	---	15-25	---	---
antelope bitterbrush	POTR2	5-10	1-5	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---
common chokecherry	PRVI	---	1-5	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---
mountain big sagebrush	ARVA2	5-15	5-15	---	---	---	---
sagebrush	ARTEM	---	---	30-35	---	---	---
snowberry	SYMPE	---	2-15	---	---	---	X
quaking aspen	POTRT	---	---	---	---	---	X

Range site number	025XY016NV	025XY004NV	025XY024NV	024XY033NV	none	025XY065NV
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Potential production (lb/acre):

Favorable years	2000	2800	400	800		800
Normal years	1400	1800	275	600		600
Unfavorable years	1000	1200	150	400		400

381--BULLUMP-TUSEL-HACKWOOD ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BULLUMP	TUSEL	HACKWOOD	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	2-5	---	---	---	---	2-8
Idaho fescue	FEID	2-10	2-10	X	15-30	---	---	---
Letterman needlegrass	STLE4	2-5	---	---	---	---	40-60	2-5
Nevada bluegrass	PONE3	2-5	2-5	---	---	---	---	---
basin wildrye	ELCI2	5-15	---	---	---	---	---	---
bluebunch wheatgrass	AGSP	30-50	2-5	---	---	---	---	---
bluegrass	POA++	---	---	---	5-15	---	---	---
horsemint giant hyssop	AGUR	---	---	X	---	---	---	---
mountain brome	BRCA5	20-40	5-15	X	---	---	---	5-10
slender wheatgrass	AGTR	---	5-15	X	---	---	---	5-10
spike-fescue	LEKI2	2-5	2-10	---	---	---	---	---
carrotleaf lomatium	LODIM	---	2-5	---	---	---	---	---
geranium	GERAN	---	2-5	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---	---
groundsel	SENEC	---	2-5	X	---	---	---	---
tailcup lupine	LUCA	---	---	---	---	---	20-40	---
Utah serviceberry	AMUT	---	1-5	X	---	---	---	---
antelope bitterbrush	PUTR2	5-10	1-5	---	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
common chokecherry	PRVI	---	1-5	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---	---
mountain big sagebrush	ARVA2	5-15	5-15	---	---	---	---	---
quaking aspen	POTR5	---	---	---	---	---	---	50-60
sagebrush	ARTEM	---	---	---	30-35	---	---	---
snowberry	SYMPH	---	2-15	X	---	---	---	---
willow	SALIX	---	---	---	---	---	---	1-8
quaking aspen	POTRT	---	---	X	---	---	---	---

Range site number	025XY016NV	025XY004NV	025XY065NV	025XY024NV	none	025XY028NV	025XY002NV
Potential production (lb/acre):							
Favorable years	2000	2800	800	400		1700	1800
Normal years	1400	1800	600	275		1400	1300
Unfavorable years	1000	1200	400	150		1100	900

391--AYCAB-ROCK OUTCROP ASSOCIATION

(An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community)

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		AYCAB	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Columbia needlegrass	STNE3	---	---	---	2-5	---
Idaho fescue	FEID	5-15	---	X	2-10	---
Letterman needlegrass	STLE4	---	---	---	---	40-60
Nevada bluegrass	PONE3	---	---	---	2-5	---
bluebunch wheatgrass	AGSP	---	---	---	2-5	---
horsemint giant hyssop	AGUR	---	---	X	---	---
mountain brome	BRCA5	2-5	---	X	5-15	---
sedge	CAREX	2-8	---	---	---	---
slender wheatgrass	AGTR	2-5	---	X	5-15	---
spike-fescue	LEKI2	20-30	---	---	2-10	---
carrotleaf lomatium	LODIM	---	---	---	2-5	---
geranium	GERAN	---	---	---	2-5	---
groundsel	SENEC	---	---	X	2-5	---
tailcup lupine	LUCA	---	---	---	---	20-40
Utah serviceberry	AMUT	---	---	X	1-5	---
antelope bitterbrush	PUTR2	---	---	---	1-5	---
common chokecherry	PRVI	---	---	---	1-5	---
eriogonum	ERIOG	2-5	---	---	---	---
mountain big sagebrush	ARVA2	15-25	---	---	5-15	---
snowberry	SYMPH	---	---	X	2-15	---
quaking aspen	POTRT	---	---	X	---	---
Range site number		025XY076NV	none	025XY065NV	025XY004NV	025XY028NV
Potential production (lb/acre):						
Favorable years		1000		800	2800	1700
Normal years		700		600	1800	1400
Unfavorable years		400		400	1200	1100

403--OROVADA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		OROVADA	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	30-40	20-40	5-15
Sandberg bluegrass	POSE	2-8	---	---	---
Thurber needlegrass	STTH2	15-25	---	---	---
basin wildrye	ELCI2	---	2-8	---	---
bottlebrush squirreltail	SIHY	2-5	---	2-10	5-10
needleandthread	STCO4	---	5-15	---	---
thickspike wheatgrass	AGDA	---	5-10	---	---
canaigre	RUHY	---	1-3	---	---
globemallow	SPHAE	1-2	---	---	---
lemon scurfpea	PSLA	---	1-3	---	---
tufted eveningprimrose	OECE2	---	1-3	---	---
Wyoming big sagebrush	ARTRW	25-35	---	---	---
basin big sagebrush	ARTRT	---	25-30	---	---
bud sagebrush	ARSP5	---	---	15-30	20-30
fourwing saltbush	ATCA2	---	2-8	---	---
shadscale	ATCO	---	---	2-8	30-40
spiny hopsage	GRSP	5-15	2-8	30-40	2-5
winterfat	EULA5	---	---	---	2-5
Range site number		024XY020NV	024XY001NV	024XY014NV	024XY002NV
Potential production (lb/acre):		700	800	700	750
Favorable years		450	500	500	450
Normal years		300	300	200	300
Unfavorable years					

406--OROVADA VERY FINE SANDY LOAM, 2 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		OROVADA	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	---	2-5
Sandberg bluegrass	POSE	2-8	2-8	---	---
Thurber needlegrass	STH2	15-25	15-25	---	---
basin wildrye	ELCI2	---	---	55-65	5-20
bottlebrush squirreltail	SIHY	2-5	2-5	---	2-5
creeping wildrye	ELTR3	---	---	5-15	---
western wheatgrass	AGSM	---	---	5-15	---
globemallow	SPHAE	1-2	1-2	---	1-2
thelypody	THELY	---	---	---	2-4
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	10-15	---
big sagebrush	ARTR2	---	---	---	10-25
black greasewood	SAVE4	---	---	2-8	20-30
spiny hopsage	GRSP	5-15	5-15	---	5-15

Range site number	024XY020NV	024XY020NV	024XY006NV	024XY022NV
Potential production (lb/acre):				
Favorable years	700	700	1500	800
Normal years	450	450	1100	600
Unfavorable years	300	300	600	350

407--OROVADA LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		OROVADA	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	5-15	---	5-15
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STH2	40-50	15-25	40-50	---
bluebunch wheatgrass	AGSP	2-10	---	2-10	---
bottlebrush squirreltail	SIHY	---	2-5	---	5-10
globemallow	SPHAE	1-3	1-2	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---
bud sagebrush	ARSP5	---	---	---	20-30
shadscale	ATCO	---	---	---	30-40
spiny hopsage	GRSP	2-5	5-15	2-5	2-5
winterfat	EULA5	---	---	---	2-5
Range site number		024XY005NV	024XY020NV	024XY005NV	024XY002NV
Potential production (lb/acre):					
Favorable years		800	700	800	750
Normal years		600	450	600	450
Unfavorable years		400	300	400	300

409--OROVADA-GOLDRUN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		OROVADA	GOLDRUN	Inclusion 1
Indian ricegrass	ORHY	5-15	30-40	15-30
Sandberg bluegrass	POSE	2-8	---	---
Thurber needlegrass	STTH2	15-25	---	---
basin wildrye	ELCI2	---	2-8	5-10
bottlebrush squirreltail	SIHY	2-5	---	---
needleandthread	STCO4	---	5-15	30-40
thickspike wheatgrass	AGDA	---	5-10	---
canaigre	RUHY	---	1-3	---
globemallow	SPHAE	1-2	---	---
lemon scurfpea	PSLA	---	1-3	---
tufted eveningprimrose	OECE2	---	1-3	---
Wyoming big sagebrush	ARTRW	25-35	---	---
basin big sagebrush	ARTRT	---	25-30	---
big sagebrush	ARTR2	---	---	15-25
fourwing saltbush	ATCA2	---	2-8	---
spiny hopsage	GRSP	5-15	2-8	1-5
Range site number		024XY020NV	024XY001NV	024XY017NV
Potential production (lb/acre):				
Favorable years		700	800	900
Normal years		450	500	700
Unfavorable years		300	300	500

410--OROVADA-BLISS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		OROVADA	BLISS	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	15-30	15-30	15-30	30-40
basin wildrye	ELCI2	5-10	5-10	5-10	2-8
needleandthread	STCO4	30-40	30-40	30-40	5-15
thickspike wheatgrass	AGDA	---	---	---	5-10
canisgre	RUHY	---	---	---	1-3
lemon scurfpea	PSLA	---	---	---	1-3
tufted eveningprimrose	OECE2	---	---	---	1-3
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	25-30
big sagebrush	ARTR2	15-25	15-25	15-25	---
fourwing saltbush	ATCA2	---	---	---	2-8
spiny hopsage	GRSP	1-5	1-5	1-5	2-8
Range site number		024XY017NV	024XY017NV	024XY017NV	024XY001NV
Potential production (lb/acre):					
Favorable years		900	900	900	800
Normal years		700	700	700	500
Unfavorable years		500	500	500	300

411--OROVADA-DUGCHIP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		OROVADA	DUGCHIP	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	---	5-15	5-15	5-15
Sandberg bluegrass	POSE	2-8	---	---	2-8	2-8
Thurber needlegrass	STH2	15-25	40-50	---	15-25	15-25
bluebunch wheatgrass	AGSP	---	2-10	---	---	---
bottlebrush squirreltail	SIHY	2-5	---	5-10	2-5	2-5
globemallow	SPHAE	1-2	1-3	---	1-2	1-2
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35	25-35
bud sagebrush	ARSP5	---	---	20-30	---	---
shadscale	ATCO	---	---	30-40	---	---
spiny hopsage	GRSP	5-15	2-5	2-5	5-15	5-15
winterfat	EULA5	---	---	2-5	---	---

Range site number	024XY020NV	024XY005NV	024XY002NV	024XY020NV	024XY020NV
Potential production (lb/acre):					
Favorable years	700	800	750	700	700
Normal years	450	600	450	450	450
Unfavorable years	300	400	300	300	300

417--OROVADA-CONNEL COMPLEX, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		OROVADA	CONNEL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15	2-5
Sandberg bluegrass	POSE	2-8	2-8	2-8	---	---
Thurber needlegrass	STH2	15-25	15-25	15-25	---	---
basin wildrye	ELCI2	---	---	---	---	5-20
bottlebrush squirreltail	SIHY	2-5	2-5	2-5	5-10	2-5
globemallow	SPHAE	1-2	1-2	1-2	---	1-2
thelypody	THELY	---	---	---	---	2-4
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-25
black greasewood	SAVE4	---	---	---	---	20-30
bud sagebrush	ARSP5	---	---	---	20-30	---
shadscale	ATCO	---	---	---	30-40	---
spiny hopsage	GRSP	5-15	5-15	5-15	2-5	5-15
winterfat	EULA5	---	---	---	2-5	---
Range site number		024XY020NV	024XY020NV	024XY020NV	024XY002NV	024XY022NV
Potential production (lb/acre):						
Favorable years		700	700	700	750	800
Normal years		450	450	450	450	600
Unfavorable years		300	300	300	300	350

420--BUBUS SILT LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions	
		Soil name or Inclusion number--	
		BUBUS	Inclusion 1
basin wildrye	ELCI2	---	5-15
bottlebrush squirreltail	SIHY	5-10	---
inland saltgrass	DISPS2	---	5-10
black greasewood	SAVE4	15-30	60-75
bud sagebrush	ARSP5	2-8	---
seepweed	SUAED	2-8	---
shadscale	ATCO	30-50	---
Range site number		024XY003NV	024XY011NV
Potential production (lb/acre):			
Favorable years		600	500
Normal years		450	350
Unfavorable years		300	200

431--PREBLE VERY FINE SANDY LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		PREBLE	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	2-5	30-40	---
alkali sacaton	SPAI	---	---	---	5-15
basin wildrye	ELCI2	5-15	5-20	2-8	50-60
bottlebrush squirreltail	SIHY	---	2-5	---	---
inland saltgrass	DISPS2	5-10	---	---	2-8
needleandthread	STCO4	---	---	5-15	---
thickspike wheatgrass	AGDA	---	---	5-10	---
canaigre	RUHY	---	---	1-3	---
globemallow	SPHAE	---	1-2	---	---
lemon scurfpea	PSLA	---	---	1-3	---
thelypody	THELY	---	2-4	---	---
tufted eveningprimrose	OECE2	---	---	1-3	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	---	25-30	---
big sagebrush	ARTR2	---	10-25	---	---
black greasewood	SAVE4	60-75	20-30	---	5-15
fourwing saltbush	ATCA2	---	---	2-8	---
rubber rabbitbrush	CHNA2	---	---	---	2-5
spiny hopsage	GRSP	---	5-15	2-8	---
Range site number		024XY011NV	024XY022NV	024XY001NV	024XY007NV
Potential production (lb/acre):					
Favorable years		500	800	800	1900
Normal years		350	600	500	1400
Unfavorable years		200	350	300	800

432--PREBLE-GOLDRUN-PLAYAS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		PREBLE	GOLDRUN	PLAYAS	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	25-35	---	---	---
alkali sacaton	SPAI	---	---	---	---	5-15
basin wildrye	ELCI2	5-15	2-5	---	---	50-60
bottlebrush squirreltail	SIHY	---	---	---	5-10	---
inland saltgrass	DISPS2	5-10	---	---	---	2-8
needleandthread	STCO4	---	5-10	---	---	---
black greasewood	SAVE4	60-75	35-45	---	15-30	5-15
bud sagebrush	ARSP5	---	---	---	2-8	---
rubber rabbitbrush	CHNA2	---	---	---	---	2-5
seepweed	SUAED	---	---	---	2-8	---
shadscale	ATCO	---	---	---	30-50	---
spiny hopsage	GRSP	---	5-15	---	---	---
Range site number		024XY011NV	024XY066NV	none	024XY003NV	024XY007NV
Potential production (lb/acre):						
Favorable years		500	600		600	1900
Normal years		350	400		450	1400
Unfavorable years		200	250		300	800

435--PREBLE SILT LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions	
		Soil name or Inclusion number--	
		PREBLE	Inclusion 1
basin wildrye	ELCI2	5-15	55-65
creeping wildrye	ELTR3	---	5-15
inland saltgrass	DISPS2	5-10	---
western wheatgrass	AGSM	---	5-15
basin big sagebrush	ARTRT	---	10-15
black greasewood	SAVE4	60-75	2-8
Range site number		024XY011NV	024XY006NV
Potential production (lb/acre):			
Favorable years		500	1500
Normal years		350	1100
Unfavorable years		200	600

436--PREBLE-VALMY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		PREBLE	VALMY	VALMY	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	2-5	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	5-15	5-10	---
Thurber needlegrass	STTH2	---	---	---	---	---	40-50
basin wildrye	ELCI2	5-15	5-20	55-65	---	60-70	---
bluebunch wheatgrass	AGSP	---	---	---	---	---	2-10
bottlebrush squirreltail	SIHY	---	2-5	---	---	---	---
creeping wildrye	ELTR3	---	---	5-15	---	---	---
inland saltgrass	DISPS2	5-10	---	---	2-5	---	---
mat muhly	MURI	---	---	---	2-5	2-8	---
sedge	CAREX	---	---	---	2-10	---	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---
western wheatgrass	AGSM	---	---	5-15	---	---	---
wildrye	ELYMU	---	---	---	60-80	---	---
globemallow	SPHAE	---	1-2	---	---	---	1-3
thelypody	THELY	---	2-4	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	25-35
basin big sagebrush	ARTRT	---	---	10-15	---	5-10	---
big sagebrush	ARTR2	---	10-25	---	---	---	---
black greasewood	SAVE4	60-75	20-30	2-8	---	---	---
spiny hopsage	GRSP	---	5-15	---	---	---	2-5
willow	SALIX	---	---	---	5-10	---	---

Range site number	024XY011NV	024XY022NV	024XY006NV	025XY001NV	025XY003NV	024XY005NV
Potential production (lb/acre):						
Favorable years	500	900	1500	3500	4500	800
Normal years	350	600	1100	2500	3500	600
Unfavorable years	200	350	600	1800	2000	400

437--PREBLE-DAVEY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		PREBLE	DAVEY	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	2-5	5-15	30-40	---
basin wildrye	ELCI2	5-15	5-20	---	2-8	---
bottlebrush squirreltail	SIHY	---	2-5	5-10	---	---
inland saltgrass	DISPS2	5-10	---	---	---	---
needleandthread	STCO4	---	---	---	5-15	---
thickspike wheatgrass	AGDA	---	---	---	5-10	---
canadagre	RUHY	---	---	---	1-3	---
globemallow	SPHAE	---	1-2	---	---	---
lemon scurfpea	PSLA	---	---	---	1-3	---
thelypody	THELY	---	2-4	---	---	---
tufted eveningprimrose	OECE2	---	---	---	1-3	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	25-30	---
big sagebrush	ARTR2	---	10-25	---	---	---
black greasewood	SAVE4	60-75	20-30	---	---	---
bud sagebrush	ARSP5	---	---	20-30	---	---
fourwing saltbush	ATCA2	---	---	---	2-8	---
shadscale	ATCO	---	---	30-40	---	---
spiny hopsage	GRSP	---	5-15	2-5	2-8	---
winterfat	EULA5	---	---	2-5	---	---
Range site number		024XY011NV	024XY022NV	024XY002NV	024XY001NV	none
Potential production (lb/acre):						
Favorable years		500	800	750	800	
Normal years		350	600	450	500	
Unfavorable years		200	350	300	300	

438--PREBLE-BUBUS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		PREBLE	BUBUS	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
alkali sacaton	SPAI	---	---	---	---	5-15	60-70
basin wildrye	ELCI2	30-45	---	55-65	5-15	50-60	---
bottlebrush squirreltail	SIHY	---	5-10	---	---	---	---
creeping wildrye	ELTR3	---	---	5-15	---	---	---
inland saltgrass	DISPS2	---	---	---	5-10	2-8	2-10
other perennial grasses	PPGG	2-15	---	---	---	---	---
western wheatgrass	AGSM	---	---	5-15	---	---	---
Torrey quailbush	ATTO	24-35	---	---	---	---	---
basin big sagebrush	ARTRT	2-8	---	10-15	---	---	---
black greasewood	SAVE4	5-10	15-30	2-8	60-75	5-15	1-5
bud sagebrush	ARSP5	---	2-8	---	---	---	---
iodinebush	ALOC2	---	---	---	---	---	10-20
rubber rabbitbrush	CHNA2	---	---	---	---	2-5	---
seepweed	SUAED	---	2-8	---	---	---	---
shadscale	ATCO	---	30-50	---	---	---	---

Range site number	024XY015NV	024XY003NV	024XY006NV	024XY011NV	024XY007NV	024XY010NV
Potential production (lb/acre):						
Favorable years	1500	600	1500	500	1900	450
Normal years	1200	450	1100	350	1400	300
Unfavorable years	800	300	600	200	800	150

440--PRIDEEN SILT LOAM, STRONGLY SALINE

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		PRIDEEN	Inclusion 1	Inclusion 2
basin wildrye	ELCI2	5-15	55-65	---
bottlebrush squirreltail	SIHY	---	---	5-10
creeping wildrye	ELTR3	---	5-15	---
inland saltgrass	DISPS2	5-10	---	---
western wheatgrass	AGSM	---	5-15	---
basin big sagebrush	ARTRT	---	10-15	---
black greasewood	SAVE4	60-75	2-8	15-30
bud sagebrush	ARSP5	---	---	2-8
seepweed	SUAED	---	---	2-8
shadscale	ATCO	---	---	30-50
Range site number		024XY011NV	024XY006NV	024XY003NV
Potential production (lb/acre):				
Favorable years		500	1500	600
Normal years		350	1100	450
Unfavorable years		200	600	300

441--PRIDEEN SILT LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		PRIDEEN	Inclusion 1	Inclusion 2
alkali sacaton	SPAI	60-70	---	---
basin wildrye	ELCI2	---	---	5-15
bottlebrush squirreltail	SIHY	---	5-10	---
inland saltgrass	DISPS2	2-10	---	5-10
black greasewood	SAVE4	1-5	15-30	60-75
bud sagebrush	ARSP5	---	2-8	---
iodinebush	ALOC2	10-20	---	---
seepweed	SUAED	---	2-8	---
shadscale	ATCO	---	30-50	---
Range site number		024XY010NV	024XY003NV	024XY011NV
Potential production (lb/acre):				
Favorable years		450	600	500
Normal years		300	450	350
Unfavorable years		150	300	200

452--KINGSRIVER LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		KINGSRIVER	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-15	5-15	5-10
basin wildrye	ELCI2	---	---	60-70
creeping wildrye	ELTR3	---	---	---
inland saltgrass	DISPS2	2-5	2-5	---
mat muhly	MURI	2-5	2-5	2-8
sedge	CAREX	2-10	2-10	---
streambank wheatgrass	AGDAR	---	---	2-8
wildrye	ELYMU	60-80	60-80	---
basin big sagebrush	ARTRT	---	---	5-10
willow	SALIX	5-10	5-10	---
Range site number		025XY001NV	025XY001NV	025XY003NV
Potential production (lb/acre):				
Favorable years		3500	3500	4500
Normal years		2500	2500	3500
Unfavorable years		1800	1800	2000

453--KINGSRIVER LOAM, DRAINED, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		KINGSRIVER	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	5-10	5-15	---	5-10
alpine timothy	PHAL2	---	---	---	5-10
basin wildrye	ELCI2	60-70	---	55-65	---
creeping wildrye	ELTR3	---	---	5-15	---
inland saltgrass	DISPS2	---	2-5	---	---
mat muhly	MURI	2-8	2-5	---	---
sedge	CAREX	---	2-10	---	5-10
streambank wheatgrass	AGDAR	2-8	---	---	---
tufted hairgrass	DECE	---	---	---	30-60
western wheatgrass	AGSM	---	---	5-15	---
wildrye	ELYMU	---	60-80	---	---
Sierra clover	TRWO	---	---	---	2-5
cinquefoil	POTEN	---	---	---	2-5
basin big sagebrush	ARTRT	5-10	---	10-15	---
black greasewood	SAVE4	---	---	2-8	---
willow	SALIX	---	5-10	---	---

Range site number	025XY003NV	025XY001NV	024XY006NV	025XY005NV
Potential production (lb/acre):				
Favorable years	4500	3500	1500	3000
Normal years	3500	2500	1100	1700
Unfavorable years	2000	1800	600	1000

460--RAD LOAMY FINE SAND, 4 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		RAD	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	15-30	5-15	2-5
Sandberg bluegrass	POSE	---	2-8	---
Thurber needlegrass	STTH2	---	15-25	---
basin wildrye	ELCI2	5-10	---	5-20
bottlebrush squirreltail	SIBY	---	2-5	2-5
needleandthread	STCO4	30-40	---	---
globemallow	SPHAE	---	1-2	1-2
thelypody	THELY	---	---	2-4
Wyoming big sagebrush	ARTRW	---	25-35	---
basin big sagebrush	ARTRT	---	---	---
big sagebrush	ARTR2	15-25	---	10-25
black greasewood	SAVE4	---	---	20-30
spiny hopsage	GRSP	1-5	5-15	5-15
Range site number		024XY017NV	024XY020NV	024XY022NV
Potential production (lb/acre):				
Favorable years		900	700	800
Normal years		700	450	600
Unfavorable years		500	300	350

461--RAD FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		RAD	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	15-30	5-15	2-5
Sandberg bluegrass	POSE	---	2-8	---
Thurber needlegrass	STTH2	---	15-25	---
basin wildrye	ELCI2	5-10	---	5-20
bottlebrush squirreltail	SIHY	---	2-5	2-5
needleandthread	STCO4	30-40	---	---
globemallow	SPHAE	---	1-2	1-2
thelypody	THELY	---	---	2-4
Wyoming big sagebrush	ARTRW	---	25-35	---
basin big sagebrush	ARTRT	---	---	---
big sagebrush	ARTR2	15-25	---	10-25
black greasewood	SAVE4	---	---	20-30
spiny hopsage	GRSP	1-5	5-15	5-15
Range site number		024XY017NV	024XY020NV	024XY022NV
Potential production (lb/acre):				
Favorable years		900	700	800
Normal years		700	450	600
Unfavorable years		500	300	350

462--RAD FINE SANDY LOAM, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		RAD	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	15-30	5-15	2-5
Sandberg bluegrass	POSE	---	2-8	---
Thurber needlegrass	STTH2	---	15-25	---
basin wildrye	ELCI2	5-10	---	5-20
bottlebrush squirreltail	SIHY	---	2-5	2-5
needleandthread	STCO4	30-40	---	---
globemallow	SPHAE	---	1-2	1-2
thelypody	THELY	---	---	2-4
Wyoming big sagebrush	ARTRW	---	25-35	---
basin big sagebrush	ARTRT	---	---	---
big sagebrush	ARTR2	15-25	---	10-25
black greasewood	SAVE4	---	---	20-30
spiny hopsage	GRSP	1-5	5-15	5-15
Range site number		024XY017NV	024XY020NV	024XY022NV
Potential production (lb/acre):				
Favorable years		900	700	800
Normal years		700	450	600
Unfavorable years		500	300	350

470--RAGLAN SILT LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		RAGLAN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	---	---
basin wildrye	ELCI2	---	55-65	---
bottlebrush squirreltail	SIHY	5-10	---	5-10
creeping wildrye	ELTR3	---	5-15	---
western wheatgrass	AGSM	---	5-15	---
basin big sagebrush	ARTRT	---	10-15	---
black greasewood	SAVE4	---	2-8	15-30
bud sagebrush	ARSF5	20-30	---	2-8
seepweed	SUAED	---	---	2-8
shadscale	ATCO	30-40	---	30-50
spiny hopsage	CRSP	2-5	---	---
winterfat	EULA5	2-5	---	---
Range site number		024XY002NV	024XY006NV	024XY003NV
Potential production (lb/acre):				
Favorable years		750	1500	600
Normal years		450	1100	450
Unfavorable years		300	600	300

471--RAGLAN SILT LOAM, STRONGLY SALINE, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		RAGLAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	5-15	---	---	2-5
basin wildrye	ELCI2	---	---	55-65	---	5-20
bottlebrush squirreltail	SIHY	5-10	5-10	---	5-10	2-5
creeping wildrye	ELTR3	---	---	5-15	---	---
western wheatgrass	AGSM	---	---	5-15	---	---
globemallow	SPHAE	---	---	---	---	1-2
thelypody	THELY	---	---	---	---	2-4
Wyoming big sagebrush	ARTRW	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	10-15	---	---
big sagebrush	ARTR2	---	---	---	---	10-25
black greasewood	SAVE4	15-30	---	2-8	15-30	20-30
bud sagebrush	ARSP5	2-8	20-30	---	2-8	---
seepweed	SUAED	2-8	---	---	2-8	---
shadscale	ATCO	30-50	30-40	---	30-50	---
spiny hopsage	GRSP	---	2-5	---	---	5-15
winterfat	EULA5	---	2-5	---	---	---
Range site number		024XY003NV	024XY002NV	024XY006NV	024XY003NV	024XY022NV
Potential production (lb/acre):						
Favorable years		600	750	1500	600	800
Normal years		450	450	1100	450	600
Unfavorable years		300	300	600	300	350

474--RAGLAN-KLECK COMPLEX, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		RAGLAN	KLECK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	2-5	---	---	---
basin wildrye	ELCI2	---	5-20	15-20	5-15	30-45
bottlebrush squirreltail	SIHY	5-10	2-5	2-10	---	---
inland saltgrass	DISPS2	---	---	2-8	5-10	---
other perennial grasses	PPGG	---	---	---	---	2-15
globemallow	SPHAE	---	1-2	---	---	---
thelypody	THELY	---	2-4	---	---	---
Torrey quailbush	ATTO	---	---	---	---	24-35
Wyoming big sagebrush	ARTRW	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	2-8
big sagebrush	ARTR2	---	10-25	---	---	---
black greasewood	SAVE4	15-30	20-30	50-65	60-75	5-10
bud sagebrush	ARSP5	2-8	---	---	---	---
seepweed	SUAED	2-8	---	---	---	---
shadscale	ATCO	30-50	---	---	---	---
spiny hopsage	GRSP	---	5-15	---	---	---
Range site number		024XY003NV	024XY022NV	024XY008NV	024XY011NV	024XY015NV
Potential production (lb/acre):						
Favorable years		600	800	700	500	1500
Normal years		450	600	450	350	1200
Unfavorable years		300	350	300	200	800

480--REBEL LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		REBEL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	5-15	---	15-30
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STTH2	40-50	15-25	---	---
basin wildrye	ELCI2	---	---	55-65	5-10
bluebunch wheatgrass	AGSP	2-10	---	---	---
bottlebrush squirreltail	SIHY	---	2-5	---	---
creeping wildrye	ELTR3	---	---	5-15	---
needleandthread	STCO4	---	---	---	30-40
western wheatgrass	AGSM	---	---	5-15	---
globemallow	SPHAE	1-3	1-2	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	10-15	---
big sagebrush	ARTR2	---	---	---	15-25
black greasewood	SAVE4	---	---	2-8	---
spiny hopsage	GRSP	2-5	5-15	---	1-5
Range site number		024XY005NV	024XY020NV	024XY006NV	024XY017NV
Potential production (lb/acre):					
Favorable years		800	700	1500	900
Normal years		600	450	1100	700
Unfavorable years		400	300	600	500

487--REBEL FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions	
		Soil name or Inclusion number--	
		REBEL	Inclusion 1
Indian ricegrass	ORHY	5-15	---
Sandberg bluegrass	POSE	2-8	---
Thurber needlegrass	STTH2	15-25	40-50
bluebunch wheatgrass	AGSP	---	2-10
bottlebrush squirreltail	SIHY	2-5	---
globemallow	SPHAE	1-2	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35
spiny hopsage	GRSP	5-15	2-5
Range site number		024XY020NV	024XY005NV
Potential production (lb/acre):			
Favorable years		700	800
Normal years		450	600
Unfavorable years		300	400

490--ROSE CREEK LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		ROSE CREEK	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-15	5-15	---
basin wildrye	ELCI2	---	---	55-65
creeping wildrye	ELTR3	---	---	5-15
inland saltgrass	DISPS2	2-5	2-5	---
mat muhly	MURI	2-5	2-5	---
sedge	CAREX	2-10	2-10	---
western wheatgrass	AGSM	---	---	5-15
wildrye	ELYMU	60-80	60-80	---
basin big sagebrush	ARTRT	---	---	10-15
black greasewood	SAVE4	---	---	2-8
willow	SALIX	5-10	5-10	---
Range site number		025XY001NV	025XY001NV	024XY006NV
Potential production (lb/acre):				
Favorable years		3500	3500	1500
Normal years		2500	2500	1100
Unfavorable years		1800	1800	600

491--ROSE CREEK SILT LOAM, DRAINED

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		ROSE CREEK	Inclusion 1	Inclusion 2
alkali sacaton	SPAI	5-15	5-15	5-15
basin wildrye	ELCI2	50-60	50-60	50-60
inland saltgrass	DISPS2	2-8	2-8	2-8
black greasewood	SAVE4	5-15	5-15	5-15
rubber rabbitbrush	CHNA2	2-5	2-5	2-5
Range site number		024XY007NV	024XY007NV	024XY007NV
Potential production (lb/acre):				
Favorable years		1900	1900	1900
Normal years		1400	1400	1400
Unfavorable years		800	800	800

492--ROSE CREEK SILTY CLAY LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		ROSE CREEK	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-15	5-15	5-15
basin wildrye	ELCI2	---	---	---
creeping wildrye	ELTR3	---	---	---
inland saltgrass	DISPS2	2-5	2-5	2-5
mat muhly	MURI	2-5	2-5	2-5
sedge	CAREX	2-10	2-10	2-10
wildrye	ELYMU	60-80	60-80	60-80
willow	SALIX	5-10	5-10	5-10
Range site number		025XY001NV	025XY001NV	025XY001NV
Potential production (lb/acre):				
Favorable years		3500	3500	3500
Normal years		2500	2500	2500
Unfavorable years		1800	1800	1800

501--ENKO LOAMY VERY FINE SAND, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		ENKO	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	15-30	---	30-40
basin wildrye	ELCI2	5-10	55-65	2-8
creeping wildrye	ELTR3	---	5-15	---
needleandthread	STCO4	30-40	---	5-15
thickspike wheatgrass	AGDA	---	---	5-10
western wheatgrass	AGSM	---	5-15	---
cansigre	RUHY	---	---	1-3
lemon scurfpea	PSLA	---	---	1-3
tufted eveningprimrose	OECE2	---	---	1-3
Wyoming big sagebrush	ARTRW	---	---	---
basin big sagebrush	ARTRT	---	10-15	25-30
big sagebrush	ARTR2	15-25	---	---
black greasewood	SAVE4	---	2-8	---
fourwing saltbush	ATCA2	---	---	2-8
spiny hopsage	GRSP	1-5	---	2-8

Range site number	024XY017NV	024XY006NV	024XY001NV
Potential production (lb/acre):			
Favorable years	900	1500	800
Normal years	700	1100	500
Unfavorable years	500	600	300

502--ENKO-GOLDRUN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		ENKO	GOLDRUN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	15-30	30-40	15-30	5-15
basin wildrye	ELCI2	5-10	2-8	5-10	---
bottlebrush squirreltail	SIHY	---	---	---	5-10
needleandthread	STCO4	30-40	5-15	30-40	---
thickspike wheatgrass	AGDA	---	5-10	---	---
canaigre	RUHY	---	1-3	---	---
lemon scurfpea	PSLA	---	1-3	---	---
tufted eveningprimrose	OECE2	---	1-3	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	25-30	---	---
big sagebrush	ARTR2	15-25	---	15-25	---
bud sagebrush	ARSP5	---	---	---	20-30
fourwing saltbush	ATCA2	---	2-8	---	---
shadscale	ATCO	---	---	---	30-40
spiny hopsage	GRSP	1-5	2-8	1-5	2-5
winterfat	EULA5	---	---	---	2-5
Range site number		024XY017NV	024XY001NV	024XY017NV	024XY002NV
Potential production (lb/acre):					
Favorable years		900	800	900	750
Normal years		700	500	700	450
Unfavorable years		500	300	500	300

503--ENKO VERY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		ENKO	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	30-40
Sandberg bluegrass	POSE	2-8	2-8	---
Thurber needlegrass	STH2	15-25	15-25	---
basin wildrye	ELCI2	---	---	2-8
bottlebrush squirreltail	SIHY	2-5	2-5	---
needleandthread	STCO4	---	---	5-15
thickspike wheatgrass	AGDA	---	---	5-10
canaigre	RUHY	---	---	1-3
globemallow	SPHAE	1-2	1-2	---
lemon scurfpea	PSLA	---	---	1-3
tufted eveningprimrose	OECE2	---	---	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	25-30
fourwing saltbush	ATCA2	---	---	2-8
spiny hopsage	GRSP	5-15	5-15	2-8
Range site number		024XY020NV	024XY020NV	024XY001NV
Potential production (lb/acre):				
Favorable years		700	700	800
Normal years		450	450	500
Unfavorable years		300	300	300

504--ENKO-SHABLISS COMPLEX, 2 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		ENKO	SHABLISS	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	---	5-15
Sandberg bluegrass	POSE	2-8	2-8	---	2-8
Thurber needlegrass	STTH2	15-25	15-25	40-50	15-25
bluebunch wheatgrass	AGSP	---	---	2-10	---
bottlebrush squirreltail	SIHY	2-5	2-5	---	2-5
globemallow	SPHAE	1-2	1-2	1-3	1-2
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	5-15	5-15	2-5	5-15
Range site number		024XY020NV	024XY020NV	024XY005NV	024XY020NV
Potential production (lb/acre):					
Favorable years		700	700	800	700
Normal years		450	450	600	450
Unfavorable years		300	300	400	300

505--ENKO VERY FINE SANDY LOAM, 2 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		ENKO	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	---	5-15
Sandberg bluegrass	POSE	2-8	2-8	---	2-8
Thurber needlegrass	STH2	15-25	15-25	40-50	15-25
bluebunch wheatgrass	AGSP	---	---	2-10	---
bottlebrush squirreltail	SIHY	2-5	2-5	---	2-5
globemallow	SPHAE	1-2	1-2	1-3	1-2
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	5-15	5-15	2-5	5-15
Range site number		024XY020NV	024XY020NV	024XY005NV	024XY020NV
Potential production (lb/acre):					
Favorable years		700	700	800	700
Normal years		450	450	600	450
Unfavorable years		300	300	400	300

507--ENKO-SHABLISS-OROVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		ENKO	SHABLISS	OROVADA	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	---	5-15	30-40	5-15
Sandberg bluegrass	POSE	---	---	2-8	---	---
Thurber needlegrass	STTH2	40-50	40-50	15-25	---	---
basin wildrye	ELCI2	---	---	---	2-8	---
bluebunch wheatgrass	AGSP	2-10	2-10	---	---	---
bottlebrush squirreltail	SIHY	---	---	2-5	---	5-10
needleandthread	STCO4	---	---	---	5-15	---
thickspike wheatgrass	AGDA	---	---	---	5-10	---
canaigre	RUHY	---	---	---	1-3	---
globemallow	SPHA8	1-3	1-3	1-2	---	---
lemon scurfpea	PSLA	---	---	---	1-3	---
tufted eveningprimrose	OECE2	---	---	---	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	25-30	---
bud sagebrush	ARSP5	---	---	---	---	20-30
fourwing saltbush	ATCA2	---	---	---	2-8	---
shadscale	ATCO	---	---	---	---	30-40
spiny hopsage	GRSP	2-5	2-5	5-15	2-8	2-5
winterfat	EULA5	---	---	---	---	2-5
Range site number		024XY005NV	024XY005NV	024XY020NV	024XY001NV	024XY002NV
Potential production (lb/acre):						
Favorable years		800	800	700	800	750
Normal years		600	600	450	500	450
Unfavorable years		400	400	300	300	300

511--MAZUMA-TROCKEN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		MAZUMA	TROCKEN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	15-30	15-30	5-15	5-15
Sandberg bluegrass	POSE	2-15	2-15	---	---
bottlebrush squirreltail	SIHY	2-8	2-8	2-5	2-5
desert needlegrass	STSP3	---	---	2-8	2-8
Bailey greasewood	SAVEB	---	---	15-30	15-30
bud sagebrush	ARSP5	15-25	15-25	2-8	2-8
shadscale	ATCO	20-35	20-35	15-35	15-35
winterfat	EULA5	5-10	5-10	---	---

Range site number	027XY013NV	027XY013NV	027XY019NV	027XY019NV
Potential production (lb/acre):				
Favorable years	600	600	300	300
Normal years	450	450	175	175
Unfavorable years	250	250	50	50

520--LUNDER-DEVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		LUNDER	DEVADA	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	---	---	5-10	---
Sandberg bluegrass	POSE	2-8	2-8	---	---
Thurber needlegrass	STH2	15-30	15-30	---	---
Webber ricegrass	STWE	2-8	2-8	---	---
basin wildrye	ELCI2	---	---	60-70	---
bluebunch wheatgrass	AGSP	20-40	20-40	---	---
mat muhly	MURI	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	2-8	---
basin big sagebrush	ARTRT	---	---	5-10	---
early sagebrush	ARLOS	---	---	---	---
low sagebrush	ARAR8	---	---	---	---
sagebrush	ARTEM	20-30	20-30	---	---
Range site number		025XY018NV	025XY018NV	025XY003NV	none
Potential production (lb/acre):					
Favorable years		800	800	4500	
Normal years		600	600	3500	
Unfavorable years		400	400	2000	

522--LUNDER-HUNNTON ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		LUNDER	HUNNTON	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	40-50
Thurber needlegrass	STH2	15-20	40-50	15-20	20-30	---
Webber ricegrass	STWE	5-15	---	5-15	---	---
basin wildrye	ELCI2	---	---	---	2-5	---
bluebunch wheatgrass	AGSP	15-30	2-10	15-30	30-40	---
bluegrass	POA++	2-10	---	2-10	2-8	---
bottlebrush squirreltail	SIHY	3-7	---	3-7	---	---
creeping wildrye	ELTR3	---	---	---	---	2-5
mat muhly	MURI	---	---	---	---	2-5
meadow barley	HOBR2	---	---	---	---	2-5
rush	JUNCU	---	---	---	---	2-5
sedge	CAREX	---	---	---	---	5-15
slender wheatgrass	AGTR	---	---	---	---	2-5
balsamroot	BALSA	2-5	---	2-5	---	---
bluebells	MERTE	2-5	---	2-5	---	---
erigonum	ERIOG	2-5	---	2-5	---	---
globemallow	SPHAE	---	1-3	---	---	---
phlox	PHLOX	2-5	---	2-5	---	---
Douglas rabbitbrush	CHVI8	2-5	---	2-5	---	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---	---
antelope bitterbrush	PUTR2	1-5	---	1-5	---	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	10-15	---
low sagebrush	ARAR8	15-25	---	15-25	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---
spiny hopsage	GRSP	---	2-5	---	---	---

Range site number	023XY060NV	024XY005NV	023XY060NV	024XY013NV	023XY013NV
Potential production (lb/acre):					
Favorable years	500	800	500	1000	2200
Normal years	375	600	375	800	1700
Unfavorable years	250	400	250	600	1300

530--SHABLISS VERY FINE SANDY LOAM, 2 TO 15 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		SHABLISS	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	5-15	5-15
Sandberg bluegrass	POSE	---	2-8	2-8
Thurber needlegrass	STTH2	40-50	15-25	15-25
bluebunch wheatgrass	AGSP	2-10	---	---
bottlebrush squirreltail	SIHY	---	2-5	2-5
globemallow	SPHAE	1-3	1-2	1-2
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35
spiny hopsage	GRSP	2-5	5-15	5-15
Range site number		024XY005NV	024XY020NV	024XY020NV
Potential production (lb/acre):				
Favorable years		800	700	700
Normal years		600	450	450
Unfavorable years		400	300	300

532--SHABLISS-ENKO-VALMY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		SHABLISS	ENKO	VALMY	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	2-5	30-40	---
Sandberg bluegrass	POSE	2-8	2-8	---	---	---
Thurber needlegrass	STTH2	15-25	15-25	---	---	40-50
basin wildrye	ELCI2	---	---	5-20	2-8	---
bluebunch wheatgrass	AGSP	---	---	---	---	2-10
bottlebrush squirreltail	SIHY	2-5	2-5	2-5	---	---
needleandthread	STCO4	---	---	---	5-15	---
thickspike wheatgrass	AGDA	---	---	---	5-10	---
canaigre	RUHY	---	---	---	1-3	---
globemallow	SPHAE	1-2	1-2	1-2	---	1-3
lemon scurfpea	PSLA	---	---	---	1-3	---
thelypody	THELY	---	---	2-4	---	---
tufted eveningprimrose	OECE2	---	---	---	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---	25-35
basin big sagebrush	ARTRT	---	---	---	25-30	---
big sagebrush	ARTR2	---	---	10-25	---	---
black greasewood	SAVE4	---	---	20-30	---	---
fourwing saltbush	ATCA2	---	---	---	2-8	---
spiny hopsage	GRSP	5-15	5-15	5-15	2-8	2-5
Range site number		024XY020NV	024XY020NV	024XY022NV	024XY001NV	024XY005NV
Potential production (lb/acre):						
Favorable years		700	700	800	800	800
Normal years		450	450	600	500	600
Unfavorable years		300	300	350	300	400

533--SHABLISS-CONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		SHABLISS	CONNEL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	5-15	---	---	5-15
Sandberg bluegrass	POSE	---	2-8	---	---	2-8
Thurber needlegrass	STTH2	40-50	15-25	40-50	40-50	15-25
bluebunch wheatgrass	AGSP	2-10	---	2-10	2-10	---
bottlebrush squirreltail	SIHY	---	2-5	---	---	2-5
globemallow	SPHAE	1-3	1-2	1-3	1-3	1-2
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	2-5	5-15	2-5	2-5	5-15
Range site number		024XY005NV	024XY020NV	024XY005NV	024XY005NV	024XY020NV
Potential production (lb/acre):						
Favorable years		800	700	800	800	700
Normal years		600	450	600	600	450
Unfavorable years		400	300	400	400	300

534--SHABLISS-PUETT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		SHABLISS	PUETT	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	25-35	---	2-5	---
Thurber needlegrass	STH2	40-50	5-10	40-50	---	40-50
basin wildrye	ELCI2	---	---	---	5-20	---
bluebunch wheatgrass	AGSP	2-10	---	2-10	---	2-10
bottlebrush squirreltail	SIHY	---	---	---	2-5	---
globemallow	SPHAE	1-3	2-4	1-3	1-2	1-3
thelypody	THELY	---	---	---	2-4	---
Douglas rabbitbrush	CHVI8	---	2-5	---	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	25-35
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	10-25	---
black greasewood	SAVE4	---	---	---	20-30	---
shadscale	ATCO	---	2-5	---	---	---
spiny hopsage	GRSP	2-5	2-5	2-5	5-15	2-5

Range site number	024XY005NV	024XY045NV	024XY005NV	024XY022NV	024XY005NV
Potential production (lb/acre):					
Favorable years	800	350	800	800	800
Normal years	600	200	600	600	600
Unfavorable years	400	100	400	350	400

536--SHABLISS-ENKO-DUGCHIP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		SHABLISS	ENKO	DUGCHIP	Inclusion 1	Inclusion 2
Thurber needlegrass	STTH2	40-50	40-50	40-50	40-50	40-50
bluebunch wheatgrass	AGSP	2-10	2-10	2-10	2-10	2-10
globemallow	SPHAE	1-3	1-3	1-3	1-3	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	2-5	2-5	2-5	2-5	2-5
Range site number		024XY005NV	024XY005NV	024XY005NV	024XY005NV	024XY005NV
Potential production (lb/acre):						
Favorable years		800	800	800	800	800
Normal years		600	600	600	600	600
Unfavorable years		400	400	400	400	400

537--SHABLISS-BLISS-GENAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SHABLISS	BLISS	GENAW	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	10-15	5-15	15-30	5-15	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-8	---	2-8	---	---	---	---
Thurber needlegrass	STTH2	15-25	2-10	15-25	---	---	---	---
basin wildrye	ELCI2	---	---	---	5-10	---	---	60-70
bottlebrush squirreltail	SIHY	2-5	2-5	2-5	---	5-10	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
needleandthread	STCO4	---	15-25	---	30-40	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
globemallow	SPHAE	1-2	---	1-2	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	---	25-35	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	25-35	---	15-25	---	---	---
bud sagebrush	ARSP5	---	---	---	---	20-30	---	---
horsebrush	TETRA3	---	2-5	---	---	---	---	---
shadscale	ATCO	---	---	---	---	30-40	---	---
spiny hopsage	GRSP	5-15	---	5-15	1-5	2-5	---	---
winterfat	EULA5	---	---	---	---	2-5	---	---
Range site number		024XY020NV	024XY058NV	024XY020NV	024XY017NV	024XY002NV	none	025XY003NV
Potential production (lb/acre):								
Favorable years		700	1300	700	900	750		4500
Normal years		450	1000	450	700	450		3500
Unfavorable years		300	700	300	500	300		2000

543--PUMPER-CONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		PUMPER	CONNEL	Inclusion 1
Indian ricegrass	ORHY	5-15	5-15	5-15
Sandberg bluegrass	POSE	---	2-8	2-8
Thurber needlegrass	STH2	---	15-25	15-25
bottlebrush squirreltail	SIHY	5-10	2-5	2-5
globemallow	SPHAE	---	1-2	1-2
Wyoming big sagebrush	ARTRW	---	25-35	25-35
bud sagebrush	ARSP5	20-30	---	---
shadscale	ATCO	30-40	---	---
spiny hopsage	GRSP	2-5	5-15	5-15
winterfat	EULA5	2-5	---	---
Range site number		024XY002NV	024XY020NV	024XY020NV
Potential production (lb/acre):				
Favorable years		750	700	700
Normal years		450	450	450
Unfavorable years		300	300	300

544--PUMPER-WESO ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		PUMPER	WESO	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	5-15	---	5-15	20-30
Sandberg bluegrass	POSE	---	---	2-8	---	---	---
Thurber needlegrass	STTH2	---	---	15-25	---	---	---
bottlebrush squirreltail	SIHY	5-10	5-10	2-5	5-10	5-10	2-5
needleandthread	STCO4	---	---	---	---	---	5-10
globemallow	SPHAE	---	---	1-2	---	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35	---	---	---
black greasewood	SAVE4	---	---	---	15-30	---	---
bud sagebrush	ARSP5	20-30	20-30	---	2-8	20-30	---
dalea	DALEA	---	---	---	---	---	2-5
fourwing saltbush	ATCA2	---	---	---	---	---	5-10
seepweed	SUAED	---	---	---	2-8	---	---
shadscale	ATCO	30-40	30-40	---	30-50	30-40	5-10
spiny hopsage	GRSP	2-5	2-5	5-15	---	2-5	10-20
winterfat	EULAS	2-5	2-5	---	---	2-5	---

Range site number	024XY002NV	024XY002NV	024XY020NV	024XY003NV	024XY002NV	024XY055NV
Potential production (lb/acre):						
Favorable years	750	750	700	600	750	600
Normal years	450	450	450	450	450	400
Unfavorable years	300	300	300	300	300	250

545--PUMPER-DUN GLEN-DAVEY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		PUMPER	DUN GLEN	DAVEY	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	15-30	15-25	5-15	30-40
basin wildrye	ELCI2	---	---	5-10	---	---	2-8
bottlebrush squirreltail	SIHY	5-10	5-10	---	2-8	5-10	---
needleandthread	STCO4	---	---	30-40	---	---	5-15
thickspike wheatgrass	AGDA	---	---	---	---	---	5-10
canaigre	RUHY	---	---	---	---	---	1-3
lemon scurfpea	PSLA	---	---	---	---	---	1-3
tufted eveningprimrose	OECE2	---	---	---	---	---	1-3
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	25-30
big sagebrush	ARTR2	---	---	15-25	---	---	---
bud sagebrush	ARSP5	20-30	20-30	---	2-5	20-30	---
fourwing saltbush	ATCA2	---	---	---	---	---	2-8
shadscale	ATCO	30-40	30-40	---	---	30-40	---
spiny hopsage	GRSP	2-5	2-5	1-5	---	2-5	2-8
winterfat	EULA5	2-5	2-5	---	60-70	2-5	---
Range site number		024XY002NV	024XY002NV	024XY017NV	024XY004NV	024XY002NV	024XY001NV
Potential production (lb/acre):							
Favorable years		750	750	900	500	750	800
Normal years		450	450	700	350	450	500
Unfavorable years		300	300	500	200	300	300

551--NINEMILE-CARSTUMP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		NINEMILE	CARSTUMP	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---
Idaho fescue	FEID	30-50	---	30-40	---	---
Nevada bluegrass	PONE3	---	---	2-5	---	---
Thurber needlegrass	STTH2	---	10-20	---	10-20	---
basin wildrye	ELCI2	---	2-8	2-10	2-8	---
bluebunch wheatgrass	AGSP	15-30	20-35	15-30	20-35	---
bluegrass	POA++	2-10	2-10	---	2-10	---
arrowleaf balsamroot	BASA3	---	---	2-5	---	---
tapertip hawksbeard	CRAC2	---	---	2-5	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---
antelope bitterbrush	PUTR2	2-5	2-8	5-10	2-8	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	10-15	---	10-15	---
low sagebrush	ARAR8	15-25	---	---	---	---
mountain big sagebrush	ARVA2	---	---	10-20	---	---
Range site number		025XY017NV	025XY014NV	025XY012NV	025XY014NV	none
Potential production (lb/acre):						
Favorable years		900	1000	1400	1000	
Normal years		700	800	1000	800	
Unfavorable years		400	600	700	600	

552--NINEMILE-VANWYPER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		NINEMILE	VANWYPER	NINEMILE	Inclusion 1	Inclusion 2	Inclusion 3
Idaho fescue	FEID	30-50	---	30-50	---	2-5	---
Nevada bluegrass	PONE3	---	---	---	---	2-5	5-10
Sandberg bluegrass	POSE	---	---	---	2-5	---	---
Thurber needlegrass	STTH2	---	5-15	---	15-25	2-8	---
basin wildrye	ELCI2	---	2-5	---	---	5-10	60-70
bluebunch wheatgrass	AGSP	15-30	60-80	15-30	25-40	30-50	---
bluegrass	POA++	2-10	---	2-10	---	---	---
mat muhly	MURI	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
Wyoming big sagebrush	ARTRW	---	5-15	---	15-25	---	---
antelope bitterbrush	PUTR2	2-5	1-5	2-5	---	2-10	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
low sagebrush	ARAR8	15-25	---	15-25	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	5-15	---
Range site number		025XY017NV	025XY015NV	025XY017NV	025XY019NV	025XY009NV	025XY003NV
Potential production (lb/acre):							
Favorable years		900	1000	900	800	1300	4500
Normal years		700	700	700	600	900	3500
Unfavorable years		400	500	400	400	700	2000

553--NINEMILE-TUSK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	TUSK	NINEMILE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	30-50	30-40	30-50	---	---	---	---
Letterman needlegrass	STLE4	---	---	---	40-60	---	---	---
Nevada bluegrass	PONE3	---	2-5	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	2-5	---	---
Thurber needlegrass	STTH2	---	---	---	---	15-25	---	---
basin wildrye	ELCI2	---	2-10	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	15-30	15-30	15-30	---	25-40	---	---
bluegrass	POA++	2-10	---	2-10	---	---	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	2-5	---	---	---	---	---
tailcup lupine	LUCA	---	---	---	20-40	---	---	---
tapertip hawksbeard	CRAC2	---	2-5	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	15-25	---	---
antelope bitterbrush	PUTR2	2-5	5-10	2-5	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
low sagebrush	ARAR8	15-25	---	15-25	---	---	---	---
mountain big sagebrush	ARVA2	---	10-20	---	---	---	---	---
Range site number		025XY017NV	025XY012NV	025XY017NV	025XY028NV	025XY019NV	none	025XY003NV
Potential production (lb/acre):								
Favorable years		900	1400	900	1700	800		4500
Normal years		700	1000	700	1400	600		3500
Unfavorable years		400	700	400	1100	400		2000

555--NINEMILE-TUSEL-ALYAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	TUSEL	ALYAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	---	---	---	---	---	---
Columbia needlegrass	STNE3	---	2-5	---	---	---	---	---
Idaho fescue	FEID	30-40	2-10	30-40	2-5	---	15-30	---
Nevada bluegrass	PONE3	---	2-5	2-5	2-5	---	---	5-10
Sandberg bluegrass	POSE	2-8	---	---	---	---	---	---
Thurber needlegrass	STTH2	2-5	---	---	2-8	---	---	---
basin wildrye	ELCI2	2-5	---	2-10	5-10	---	---	60-70
bluebunch wheatgrass	AGSP	20-30	2-5	15-30	30-50	---	---	---
bluegrass	POA++	2-8	---	---	---	---	5-15	---
mat muhly	MURI	---	---	---	---	---	---	2-8
mountain brome	BRCAS	---	5-15	---	---	---	---	---
slender wheatgrass	AGTR	---	5-15	---	---	---	---	---
spike-fescue	LEKI2	---	2-10	---	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	---	2-5	---	---	---	---
carrotleaf lomatium	LODIM	---	2-5	---	---	---	---	---
geranium	GERAN	---	2-5	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	2-5	---
groundsel	SENEC	---	2-5	---	---	---	---	---
tapertip hawksbeard	CRAC2	---	---	2-5	---	---	---	---
Utah serviceberry	AMUT	---	1-5	---	---	---	---	---
antelope bitterbrush	PUTR2	---	1-5	5-10	2-10	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
black sagebrush	ARARN	---	---	---	---	---	---	---
common chokecherry	PRVI	---	1-5	---	---	---	---	---
low sagebrush	ARAR8	10-20	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	5-15	10-20	5-15	---	---	---
sagebrush	ARTEM	---	---	---	---	---	30-35	---
snowberry	SYMPH	---	2-15	---	---	---	---	---

Range site number	023XY017NV	025XY004NV	025XY012NV	025XY009NV	none	025XY024NV	025XY003NV
Potential production (lb/acre):							
Favorable years	900	2800	1400	1300		400	4500
Normal years	700	1800	1000	900		275	3500
Unfavorable years	500	1200	700	700		150	2000

557--NINEMILE VERY STONY LOAM, 4 TO 15 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		NINEMILE	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	2-8	5-10	2-8	---
Cusick bluegrass	POCU3	---	---	2-8	---
Idaho fescue	FEID	30-40	---	30-40	---
Sandberg bluegrass	POSE	2-8	5-10	---	---
Thurber needlegrass	STTH2	2-5	10-20	2-8	---
basin wildrye	ELCI2	2-5	---	5-15	---
bluebunch wheatgrass	AGSP	20-30	20-50	15-35	---
bluegrass	POA++	2-8	5-10	2-8	---
antelope bitterbrush	PUTR2	---	---	2-10	---
low sagebrush	ARAR8	10-20	10-20	---	---
mountain big sagebrush	ARVA2	---	---	10-20	---
Range site number		023XY017NV	023XY031NV	023XY007NV	none
Potential production (lb/acre):					
Favorable years		900	900	1600	
Normal years		700	700	1200	
Unfavorable years		500	500	900	

558--NINEMILE-ANAWALT-VANWYPER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	ANAWALT	VANWYPER	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	30-50	---	---	30-40	15-25	---	---
Nevada bluegrass	PONE3	---	---	---	2-5	---	---	5-10
Sandberg bluegrass	POSE	---	2-8	---	---	---	---	---
Thurber needlegrass	STTH2	---	15-30	5-15	---	---	---	---
Webber ricegrass	STWE	---	2-8	---	---	2-5	---	---
basin wildrye	ELCI2	---	---	2-5	2-10	---	---	60-70
bluebunch wheatgrass	AGSP	15-30	20-40	60-80	15-30	2-5	---	---
bluegrass	POA++	2-10	---	---	---	5-10	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
pine bluegrass	POSC	---	---	---	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	---	---	2-5	---	---	---
goldenweed	HAPLO2	---	---	---	---	2-5	---	---
tapertip hawksbeard	CRAC2	---	---	---	2-5	---	---	---
Wyoming big sagebrush	ARTRW	---	---	5-15	---	---	---	---
antelope bitterbrush	PUTR2	2-5	---	1-5	5-10	---	---	---
basin big sagebrush	ARTRP	---	---	---	---	---	---	5-10
black sagebrush	ARARN	---	---	---	---	---	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	15-25	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	10-20	---	---	---
sagebrush	ARTEM	---	20-30	---	---	25-40	---	---
Range site number		025XY017NV	025XY018NV	025XY015NV	025XY012NV	024XY016NV	none	025XY003NV
Potential production (lb/acre):								
Favorable years		900	800	1000	1400	350		4500
Normal years		700	600	700	1000	250		3500
Unfavorable years		400	400	500	700	150		2000

559--NINEMILE-DEVADA-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		NINEMILE	DEVADA	ROCK OUTCROP	Inclusion 1	Inclusion 2
Canby bluegrass	POCA	---	---	---	---	---
Idaho fescue	FEID	30-50	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	2-8	---	---	---
Thurber needlegrass	STTH2	---	15-30	---	10-20	---
Webber ricegrass	STWE	---	2-8	---	---	---
alpine timothy	PHAL2	---	---	---	---	5-10
basin wildrye	ELCI2	---	---	---	2-8	---
bluebunch wheatgrass	AGSP	15-30	20-40	---	20-35	---
bluegrass	POA++	2-10	---	---	2-10	---
sedge	CAREX	---	---	---	---	5-10
tufted hairgrass	DECE	---	---	---	---	30-60
Sierra clover	TRWO	---	---	---	---	2-5
cinquefoil	POTEN	---	---	---	---	2-5
Wyoming big sagebrush	ARTRW	---	---	---	---	---
antelope bitterbrush	PUTR2	2-5	---	---	2-8	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	10-15	---
early sagebrush	ARLO9	---	---	---	---	---
low sagebrush	ARAR8	15-25	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---
sagebrush	ARTEM	---	20-30	---	---	---
Range site number		025XY017NV	025XY018NV	none	025XY014NV	025XY005NV
Potential production (lb/acre):						
Favorable years		900	800		1000	3000
Normal years		700	600		800	1700
Unfavorable years		400	400		600	1000

561--SONOMA SILT LOAM, STRONGLY SALINE

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		SONOMA	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	---	5-15	5-15
alkali sacaton	SPAI	5-15	---	---
basin wildrye	ELCI2	50-60	---	---
creeping wildrye	ELTR3	---	---	---
inland saltgrass	DISPS2	2-8	2-5	2-5
mat muhly	MURI	---	2-5	2-5
sedge	CAREX	---	2-10	2-10
wildrye	ELYMU	---	60-80	60-80
black greasewood	SAVE4	5-15	---	---
rubber rabbitbrush	CHNA2	2-5	---	---
willow	SALIX	---	5-10	5-10
Range site number		024XY007NV	025XY001NV	025XY001NV
Potential production (lb/acre):				
Favorable years		1900	3500	3500
Normal years		1400	2500	2500
Unfavorable years		800	1800	1800

562--SONOMA SILTY CLAY LOAM, OCCASIONALLY FLOODED

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		SONOMA	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	5-15	5-15	5-15	---
alkali sacaton	SPAI	---	---	---	5-15
basin wildrye	ELCI2	---	---	---	50-60
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	2-5	2-5	2-5	2-8
mat muhly	MURI	2-5	2-5	2-5	---
sedge	CAREX	2-10	2-10	2-10	---
wildrye	ELYMU	60-80	60-80	60-80	---
black greasewood	SAVE4	---	---	---	5-15
rubber rabbitbrush	CHNA2	---	---	---	2-5
willow	SALIX	5-10	5-10	5-10	---
Range site number		025XY001NV	025XY001NV	025XY001NV	024XY007NV
Potential production (lb/acre):					
Favorable years		3500	3500	3500	1900
Normal years		2500	2500	2500	1400
Unfavorable years		1800	1800	1800	800

563--SONOMA SILTY CLAY LOAM, STRONGLY SALINE

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		SONOMA	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	---	5-15	---
alkali bluegrass	POJU	5-15	---	---
alkali cordgrass	SPGR	5-10	---	---
alkali muhly	MJAS	10-20	---	---
alkali sacaton	SPAI	15-40	---	60-70
basin wildrye	ELCI2	2-5	---	---
creeping wildrye	ELTR3	---	---	---
inland saltgrass	DISPS2	5-10	2-5	2-10
mat muhly	MURI	---	2-5	---
sedge	CAREX	---	2-10	---
wildrye	ELYMU	---	60-80	---
arrowgrass	TRIGL	1-3	---	---
black greasewood	SAVE4	---	---	1-5
iodinebush	ALOC2	---	---	10-20
willow	SALIX	---	5-10	---

Range site number	024XY009NV	025XY001NV	024XY010NV
Potential production (lb/acre):			
Favorable years	1500	3500	450
Normal years	1000	2500	300
Unfavorable years	700	1800	150

564--SONOMA SILT LOAM, DRAINED

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions	
		Soil name or Inclusion number--	
		SONOMA	Inclusion 1
basin wildrye	ELCI2	55-65	5-15
creeping wildrye	ELTR3	5-15	---
inland saltgrass	DISPS2	---	5-10
western wheatgrass	AGSM	5-15	---
basin big sagebrush	ARTRT	10-15	---
black greasewood	SAVE4	2-8	60-75
Range site number		024XY006NV	024XY011NV
Potential production (lb/acre):			
Favorable years		1500	500
Normal years		1100	350
Unfavorable years		600	200

566--SONOMA-PARANAT COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SONOMA	PARANAT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Nevada bluegrass	PONE3	---	---	5-15	---	---	---
alkali bluegrass	POJU	---	---	---	2-10	---	---
alkali cordgrass	SPGR	---	---	---	2-5	---	---
alkali sacaton	SPAI	5-15	5-15	---	2-10	---	60-70
basin wildrye	ELCI2	50-60	10-20	---	30-40	5-15	---
creeping wildrye	ELTR3	---	---	---	---	---	---
inland saltgrass	DISPS2	2-8	5-10	2-5	2-5	5-10	2-10
mat muhly	MURI	---	---	2-5	---	---	---
other perennial grasses	PPGG	---	5-10	---	---	---	---
sedge	CAREX	---	---	2-10	---	---	---
wildrye	ELVMU	---	---	60-80	---	---	---
basin big sagebrush	ARTRT	---	---	---	2-10	---	---
black greasewood	SAVE4	5-15	5-15	---	---	60-75	1-5
iodinebush	ALOC2	---	---	---	---	---	10-20
rubber rabbitbrush	CHNA2	2-5	2-5	---	---	---	---
shadscale	ATCO	---	5-15	---	---	---	---
silver buffaloberry	SHAR	---	15-30	---	15-30	---	---
willow	SALIX	---	---	5-10	---	---	---

Range site number	024XY007NV	024XY064NV	025XY001NV	024XY063NV	024XY011NV	024XY010NV
Potential production (lb/acre):						
Favorable years	1900	1400	3500	1800	500	450
Normal years	1400	1000	2500	1400	350	300
Unfavorable years	800	700	1800	900	200	150

567--SONOMA SILTY CLAY LOAM, FREQUENTLY FLOODED

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		SONOMA	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	5-15	5-15	5-15	---
alkali sacaton	SPAI	---	---	---	5-15
basin wildrye	ELCI2	---	---	---	50-60
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	2-5	2-5	2-5	2-8
mat muhly	MURI	2-5	2-5	2-5	---
sedge	CAREX	2-10	2-10	2-10	---
wildrye	ELYMU	60-80	60-80	60-80	---
black greasewood	SAVE4	---	---	---	5-15
rubber rabbitbrush	CHNA2	---	---	---	2-5
willow	SALIX	5-10	5-10	5-10	---

Range site number	025XY001NV	025XY001NV	025XY001NV	024XY007NV
Potential production (lb/acre):				
Favorable years	3500	3500	3500	1900
Normal years	2500	2500	2500	1400
Unfavorable years	1800	1800	1800	800

573--SPINLIN-HARCANY-HACKWOOD ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SPINLIN	HARCANY	HACKWOOD	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Columbia needlegrass	STNE3	---	5-10	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	2-5	---	---
Idaho fescue	FEID	20-40	5-10	X	---	5-15	---	---
Letterman needlegrass	STLE4	---	---	---	---	2-5	---	---
Nevada bluegrass	PONE3	---	2-5	---	5-10	2-5	5-10	---
Thurber needlegrass	STTH2	2-8	---	---	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	5-10	---
basin wildrye	ELCI2	---	---	---	60-70	2-5	---	---
bluebunch wheatgrass	AGSP	10-20	5-10	---	---	5-15	---	---
bluegrass	POA+	2-8	---	---	---	---	---	---
horsemint giant hyssop	AGUR	---	---	X	---	---	---	---
mat muhly	MURI	---	---	---	2-8	---	---	---
mountain brome	BRCA5	---	15-30	X	---	5-10	---	---
sedge	CAREX	---	---	---	---	---	5-10	---
slender wheatgrass	AGTR	---	5-10	X	---	2-5	---	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---	---	---
tufted hairgrass	DECE	---	---	---	---	---	30-60	---
Sierra clover	TRWO	---	---	---	---	---	2-5	---
cinquefoil	POTEN	---	---	---	---	---	2-5	---
groundsel	SENEC	---	---	X	---	---	---	---
Utah serviceberry	AMUT	---	---	X	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	5-10	---	---	---
currant	RIBES	---	---	---	---	2-8	---	---
low sagebrush	ARAR8	20-30	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	10-20	---	---	5-15	---	---
oceanspray	HOLOD	---	---	---	---	5-15	---	---
serviceberry	AMELA	---	2-10	---	---	5-15	---	---
snowberry	SYMPH	---	2-5	X	---	2-10	---	---
threetip sagebrush	ARTR4	---	---	---	---	2-10	---	---
quaking aspen	POTRT	---	---	X	---	---	---	---

Range site number	024XY027NV	024XY032NV	025XY065NV	025XY003NV	024XY034NV	025XY005NV	none
Potential production (lb/acre):							
Favorable years	1200	2200	800	4500	1600	3000	
Normal years	800	1700	600	3500	1200	1700	
Unfavorable years	600	1200	400	2000	800	1000	

574--SPINLIN-HACKWOOD-TUSEL ASSOCIATION

[An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SPINLIN	HACKWOOD	TUSEL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	---	2-5	---	---	---	---
Idaho fescue	FEID	30-50	X	2-10	20-30	5-15	---	---
Letterman needlegrass	STLE4	---	---	---	2-8	---	---	X
Nevada bluegrass	PONE3	---	---	2-5	---	---	---	---
Ross sedge	CAR05	---	---	---	---	---	---	X
basin wildrye	ELCI2	---	---	---	5-10	---	---	---
big squirreltail	SIJU	---	---	---	---	---	---	X
bluebunch wheatgrass	AGSP	15-30	---	2-5	---	---	---	---
bluegrass	POA++	2-10	---	---	---	---	---	X
dunhead sedge	CAPH2	---	---	---	---	---	---	X
horsemint giant hyssop	AGUR	---	X	---	---	---	---	---
mountain brome	BRCAS	---	X	5-15	2-8	2-5	---	---
sedge	CAREX	---	---	---	---	2-8	---	---
slender wheatgrass	AGTR	---	X	5-15	2-5	2-5	---	---
spike-fescue	LEKI2	---	---	2-10	---	20-30	---	X
western needlegrass	STOC2	---	---	---	---	---	---	X
carrotleaf lomatium	LODIM	---	---	2-5	---	---	---	---
geranium	GERAN	---	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	---	X
groundsel	SENEC	---	X	2-5	---	---	---	X
Utah serviceberry	AMUT	---	X	1-5	---	---	---	X
antelope bitterbrush	PUTR2	2-5	---	1-5	---	---	---	---
common chokecherry	PRVI	---	---	1-5	---	---	---	---
curlleaf mountainmahogany	CELE3	---	---	---	30-45	---	---	X
eriogonum	ERIOG	---	---	---	---	2-5	---	X
low sagebrush	ARAR8	15-25	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	5-15	2-5	15-25	---	X
mountain snowberry	SVOR2	---	---	---	2-10	---	---	X
snowberry	SYMPH	---	X	2-15	---	---	---	---
snowbrush ceanothus	CEVE	---	---	---	---	---	---	X
limber pine	PIFL2	---	---	---	---	---	---	X
quaking aspen	POTRT	---	X	---	---	---	---	X

Range site number	025XY017NV	025XY065NV	025XY004NV	025XY075NV	025XY076NV	none	025XY073NV
Potential production (lb/acre):							
Favorable years	900	800	2800	2200	1000		450
Normal years	700	600	1800	1800	700		350
Unfavorable years	400	400	1200	1300	400		250

580--SUMINE-NINEMILE-SOFTSCRABBLE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SUMINE	NINEMILE	SOFTSCRABBLE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	2-5	30-50	30-40	15-30	15-25	X	---
Nevada bluegrass	PONE3	2-5	---	2-5	---	---	---	---
Thurber needlegrass	STTH2	2-8	---	---	---	---	---	---
basin wildrye	ELCI2	5-10	---	2-10	---	---	---	---
bluebunch wheatgrass	AGSP	30-50	15-30	15-30	---	5-15	---	---
bluegrass	POA++	---	2-10	---	5-15	2-5	---	---
horsemint giant hyssop	AGUR	---	---	---	---	---	X	---
mountain brome	BRCA5	---	---	---	---	---	X	---
needlegrass	STIPA	---	---	---	---	2-8	---	---
slender wheatgrass	AGTR	---	---	---	---	---	X	---
western needlegrass	STOC2	---	---	---	---	---	---	---
arrowleaf balsamroot	BASA3	---	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---	---
groundsel	SENEC	---	---	---	---	---	X	---
tapertip hawksbeard	CRAC2	---	---	2-5	---	---	---	---
Utah serviceberry	AMUT	---	---	---	---	---	X	---
antelope bitterbrush	PUTR2	2-10	2-5	5-10	---	2-5	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	5-15	---	10-20	---	5-15	---	---
sagebrush	ARTEM	---	---	---	30-35	---	---	---
snowberry	SYMPH	---	---	---	---	2-8	X	---
quaking aspen	POTRT	---	---	---	---	---	X	---

Range site number	025XY009NV	025XY017NV	025XY012NV	025XY024NV	025XY071NV	025XY065NV	none
Potential production (lb/acre):							
Favorable years	1300	900	1400	400	1700	800	
Normal years	900	700	1000	275	1300	600	
Unfavorable years	700	400	700	150	900	400	

581--SUMINE-GOSUMI-NOMARA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SUMINE	GOSUMI	NOMARA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	---	20-40	20-40	15-25	---	---	---
Indian ricegrass	ORRY	---	---	---	---	---	X	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STTH2	2-5	2-8	2-8	---	---	X	---
Webber ricegrass	STWE	---	---	---	2-5	---	---	---
basin wildrye	ELCI2	5-10	---	2-15	---	---	---	60-70
bluebunch wheatgrass	AGSP	30-50	10-20	20-40	2-5	---	X	---
bluegrass	POA++	---	2-8	---	5-10	---	X	---
mat muhly	MURI	---	---	---	---	---	---	2-8
mountain brome	BRCA5	2-15	---	---	---	---	---	---
pine bluegrass	POSC	---	---	---	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	2-5	---	1-5	---	---	---	---
goldenweed	HAFLO2	---	---	---	2-5	---	X	---
helianthella	HELIA	---	---	1-2	---	---	---	---
lupine	LUPIN	2-5	---	---	---	---	---	---
phlox	PHLOX	---	---	---	---	---	X	---
tapertip hawkbeard	CRAC2	2-5	---	1-5	---	---	---	---
white stoneseed	LIRU4	---	---	1-2	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
black sagebrush	ARARN	---	---	---	---	---	X	---
downy rabbitbrush	CHVIP4	---	---	---	---	---	X	---
low sagebrush	ARAR8	---	20-30	---	---	---	---	---
mountain big sagebrush	ARVA2	10-20	---	15-25	---	---	---	---
sagebrush	ARTEM	---	---	---	25-40	---	---	---
Utah juniper	JUOS	---	---	---	---	---	X	---

Range site number	024XY029NV	024XY027NV	024XY021NV	024XY016NV	none	025XY060NV	025XY003NV
Potential production (lb/acre):							
Favorable years	1500	1200	1400	350		400	4500
Normal years	1100	800	1000	250		275	3500
Unfavorable years	800	600	700	150		150	2000

582--SUMINE-NINEMILE-ANAWALT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SUMINE	NINEMILE	ANAWALT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	---	30-50	---	---	30-40	2-10	---
Letterman needlegrass	STLE4	---	---	---	---	---	2-5	---
Nevada bluegrass	PONE3	---	---	---	---	2-5	2-5	5-10
Sandberg bluegrass	POSE	---	---	2-8	---	---	---	---
Thurber needlegrass	STTH2	2-5	---	15-30	---	---	---	---
Webber ricegrass	STWE	---	---	2-8	---	---	---	---
basin wildrye	ELCI2	5-10	---	---	---	2-10	5-15	60-70
bluebunch wheatgrass	AGSP	30-50	15-30	20-40	---	15-30	30-50	---
bluegrass	POA++	---	2-10	---	---	---	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
mountain brome	BRCA5	2-15	---	---	---	---	20-40	---
spike-fescue	LEKI2	---	---	---	---	---	2-5	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	2-5	---	---	---	2-5	---	---
lupine	LUPIN	2-5	---	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	2-5	---	---
antelope bitterbrush	PUTR2	---	2-5	---	---	5-10	5-10	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	10-20	---	---	---	10-20	5-15	---
sagebrush	ARTEM	---	---	20-30	---	---	---	---
Range site number		024XY029NV	025XY017NV	025XY018NV	none	025XY012NV	025XY016NV	025XY003NV
Potential production (lb/acre):								
Favorable years		1500	900	800		1400	2000	4500
Normal years		1100	700	600		1000	1400	3500
Unfavorable years		800	400	400		700	1000	2000

583--SUMINE-GOSUMI-HARCANY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SUMINE	GOSUMI	HARCANY	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Columbia needlegrass	STNE3	---	---	5-10	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	---	20-40	5-10	---	---	X	15-25
Nevada bluegrass	PONE3	---	---	2-5	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STTH2	2-5	2-8	---	---	10-20	---	---
Webber ricegrass	STWE	---	---	---	---	---	---	2-5
basin wildrye	ELCI2	5-10	---	---	---	2-8	---	---
bluebunch wheatgrass	AGSP	30-50	10-20	5-10	---	20-35	---	2-5
bluegrass	POA++	---	2-8	---	---	2-10	---	5-10
horsemint giant hyssop	AGUR	---	---	---	---	---	X	---
mountain brome	BRCA5	2-15	---	15-30	---	---	X	---
pine bluegrass	POSC	---	---	---	---	---	---	---
slender wheatgrass	AGTR	---	---	5-10	---	---	X	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	---	2-5
groundsel	SENEC	---	---	---	---	---	X	---
lupine	LUPIN	2-5	---	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---	---
Utah serviceberry	AMUT	---	---	---	---	---	X	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
antelope bitterbrush	PTR2	---	---	---	---	2-8	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-15	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	20-30	---	---	---	---	---
mountain big sagebrush	ARVA2	10-20	---	10-20	---	---	---	---
sagebrush	ARTEM	---	---	---	---	---	---	25-40
serviceberry	AMELA	---	---	2-10	---	---	---	---
snowberry	SYMPH	---	---	2-5	---	---	X	---
quaking aspen	POTRT	---	---	---	---	---	X	---

Range site number	024XY029NV	024XY027NV	024XY032NV	none	025XY014NV	025XY065NV	024XY016NV
Potential production (lb/acre):							
Favorable years	1500	1200	2200		1000	800	350
Normal years	1100	800	1700		800	600	250
Unfavorable years	800	600	1200		600	400	150

584--SUMINE-NINEMILE-TUSEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SUMINE	NINEMILE	TUSEL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	---	2-5	---	---	2-8	---
Idaho fescue	FEID	2-5	30-50	2-10	15-30	---	---	---
Letterman needlegrass	STLE4	---	---	---	---	---	2-5	---
Nevada bluegrass	PONE3	2-5	---	2-5	---	---	---	40-60
Thurber needlegrass	STH2	2-8	---	---	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	---	20-40
basin wildrye	ELCI2	5-10	---	---	---	---	---	2-8
bluebunch wheatgrass	AGSP	30-50	15-30	2-5	---	30-50	---	---
bluegrass	POA++	---	2-10	---	5-15	---	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
meadow barley	HOBR2	---	---	---	---	---	---	2-5
mountain brome	BRCA5	---	---	5-15	---	---	5-10	---
sedge	CAREX	---	---	---	---	---	---	2-8
slender wheatgrass	AGTR	---	---	5-15	---	---	5-10	---
spike-fescue	LEKI2	---	---	2-10	---	---	---	---
carrotleaf lomatium	LODIM	---	---	2-5	---	---	---	---
geranium	GERAN	---	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---	---
groundsel	SENEC	---	---	2-5	---	---	---	---
Utah serviceberry	AMUT	---	---	1-5	---	---	---	---
antelope bitterbrush	FUTR2	2-10	2-5	1-5	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
common chokecherry	PRVI	---	---	1-5	---	---	---	---
low sagebrush	ARAR8	---	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	5-15	---	5-15	---	---	---	---
quaking aspen	POTR5	---	---	---	---	---	50-60	---
sagebrush	ARTEM	---	---	---	30-35	---	---	---
snowberry	SYMPH	---	---	2-15	---	---	---	---
willow	SALIX	---	---	---	---	---	1-8	---

Range site number	025XY009NV	025XY017NV	025XY004NV	025XY024NV	none	025XY002NV	025XY006NV
Potential production (lb/acre):							
Favorable years	1300	900	2800	400		1800	2000
Normal years	900	700	1800	275		1300	1300
Unfavorable years	700	400	1200	150		900	800

585--SUMINE-ROCK OUTCROP-NINEMILE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SUMINE	ROCK OUTCROP	NINEMILE	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Idaho fescue	FEID	---	---	---	---	15-25	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	2-10	---	---	---
Thurber needlegrass	STTH2	2-5	---	10-20	10-20	---	---
Webber ricegrass	STWE	---	---	5-10	---	2-5	---
basin wildrye	ELCI2	5-10	---	---	2-8	---	60-70
bluebunch wheatgrass	AGSP	30-50	---	20-30	20-35	2-5	---
bluegrass	POA++	---	---	---	2-10	5-10	---
mat muhly	MURI	---	---	---	---	---	2-8
mountain brome	BRCA5	2-15	---	---	---	---	---
pine bluegrass	POSC	---	---	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---
balsamroot	BALSA	---	---	2-5	---	---	---
goldenweed	HAPLO2	---	---	---	---	2-5	---
lupine	LUPIN	2-5	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
antelope bitterbrush	PUTR2	---	---	---	2-8	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	---	10-15	---	---
black sagebrush	ARARN	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	25-35	---	---	---
mountain big sagebrush	ARVA2	10-20	---	---	---	---	---
sagebrush	ARTEM	---	---	---	---	25-40	---

Range site number	024XY029NV	none	025XY022NV	025XY014NV	024XY016NV	025XY003NV
Potential production (lb/acre):						
Favorable years	1500		600	1000	350	4500
Normal years	1100		400	800	250	3500
Unfavorable years	800		250	600	150	2000

586--SUMINE-RUBBLE LAND-RELUCTAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SUMINE	RUBBLE LAND	RELUCTAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	5-10	2-8	5-10	---	---
Columbia needlegrass	STNE3	---	---	---	---	10-20	---	---
Idaho fescue	FEID	---	---	30-40	30-40	2-5	X	---
Nevada bluegrass	PONE3	---	---	5-10	---	5-10	X	---
Sandberg bluegrass	POSE	---	---	---	2-8	---	---	---
Thurber needlegrass	STTH2	5-10	---	---	2-5	---	---	---
basin wildrye	ELCI2	2-10	---	2-5	2-5	5-10	---	---
bluebunch wheatgrass	AGSP	50-70	---	2-5	20-30	---	---	---
bluegrass	POA++	---	---	5-10	2-8	5-10	---	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOBR2	---	---	---	---	---	---	5-10
mountain brome	BRCA5	---	---	---	---	20-40	X	---
needlegrass	STIPA	---	---	---	---	10-20	---	---
rush	JUNCU	---	---	---	---	---	X	5-10
sedge	CAREX	---	---	---	---	---	X	5-10
slender wheatgrass	AGTR	---	---	---	---	---	X	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
western needlegrass	STOC2	---	---	15-25	---	10-20	---	---
groundsel	SENEC	---	---	---	---	---	X	---
yarrow	ACHIL	---	---	---	---	---	X	---
Woods rose	ROWO	---	---	---	---	---	X	---
antelope bitterbrush	PUTR2	2-5	---	5-15	---	---	---	---
low sagebrush	ARAR8	---	---	---	10-20	---	---	---
mountain big sagebrush	ARVA2	5-15	---	5-20	---	10-20	---	---
serviceberry	AMELA	---	---	2-5	---	---	---	---
snowberry	SYMPH	---	---	2-5	---	2-5	---	---
quaking aspen	POTRT	---	---	---	---	---	X	---

Range site number	023XY016NV	none	023XY066NV	023XY017NV	023XY019NV	025XY064NV	023XY025NV
Potential production (lb/acre):							
Favorable years	1500		1300	900	2200	1600	4000
Normal years	1100		1100	700	1800	1300	3000
Unfavorable years	800		900	500	1500	1000	2000

587--SUMINE-GOSUMI-HARCANY ASSOCIATION, COOL

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SUMINE	GOSUMI	HARCANY	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	2-8	---	5-15	---	---	---
Idaho fescue	FEID	---	30-40	2-10	10-20	X	---	---
Letterman needlegrass	STLE4	---	---	2-5	---	---	---	---
Nevada bluegrass	PONE3	---	---	2-5	---	X	---	---
Sandberg bluegrass	POSE	---	2-8	---	5-15	---	---	---
Thurber needlegrass	STTH2	5-10	2-5	---	---	---	---	---
basin wildrye	ELCI2	2-10	2-5	---	---	---	---	---
big squirreltail	SIJU	---	---	---	---	X	---	---
blue wildrye	ELGL	---	---	2-5	---	---	---	---
bluebunch wheatgrass	AGSP	50-70	20-30	2-5	---	---	---	---
bluegrass	POA++	---	2-8	---	5-15	---	---	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOB2	---	---	---	---	---	---	5-10
melic	MELIC	---	---	---	---	X	---	---
mountain brome	BRCA5	---	---	5-15	---	X	---	---
purple oniongrass	MESP	---	---	2-5	---	---	---	---
rush	JUNCU	---	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	---	5-10
slender wheatgrass	ACTR	---	---	5-15	---	X	---	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
carrotleaf lomatium	LODIM	---	---	2-5	---	---	---	---
clover	TRIFO	---	---	2-5	---	---	---	---
geranium	GERAN	---	---	2-10	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---	---
groundsel	SENEC	---	---	2-10	---	---	---	---
horsemint giant hyssop	AGUR	---	---	2-5	---	---	---	---
meadowrue	THALI2	---	---	---	---	X	---	---
Douglas rabbitbrush	CHVI8	---	---	---	2-5	---	---	---
antelope bitterbrush	PUTR2	2-5	---	2-5	---	---	---	---
common chokecherry	PRVI	---	---	2-5	---	---	---	---
elderberry	SAMBU	---	---	2-5	---	---	---	---
low sagebrush	ARAR8	---	10-20	---	35-45	---	---	---
mountain big sagebrush	ARVA2	5-15	---	---	---	X	---	---
quaking aspen	POTRT	---	---	2-5	---	X	---	---
snowberry	SYMPH	---	---	2-10	---	X	---	---
quaking aspen	POTRT	---	---	2-5	---	X	---	---

Range site number	023XY016NV	023XY017NV	023XY065NV	023XY008NV	023XY028NV	none	023XY025NV
Potential production (lb/acre):							
Favorable years	1500	900	2600	400	600		4000
Normal years	1100	700	1800	250	400		3000
Unfavorable years	800	500	1400	200	250		2000

588--SUMINE-CLEAVAGE-RUBBLE LAND ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SUMINE	CLEAVAGE	RUBBLE LAND	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	2-5	30-50	---	X	---	30-40	---
Nevada bluegrass	PONE3	2-5	---	---	X	---	2-5	40-60
Thurber needlegrass	STTH2	2-8	---	---	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	---	20-40
basin wildrye	ELCI2	5-10	---	---	---	---	2-10	2-8
bluebunch wheatgrass	AGSP	30-50	15-30	---	---	---	15-30	---
bluegrass	POA++	---	2-10	---	---	---	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
meadow barley	HOBR2	---	---	---	---	---	---	2-5
mountain brome	BRCA5	---	---	---	X	---	---	---
rush	JUNCU	---	---	---	X	---	---	---
sedge	CAREX	---	---	---	X	---	---	2-8
slender wheatgrass	AGTR	---	---	---	X	---	---	---
arrowleaf balsamroot	BASA3	---	---	---	---	---	2-5	---
groundsel	SENEC	---	---	---	X	---	---	---
tapertip hawksbeard	CRAC2	---	---	---	---	---	2-5	---
yarrow	ACHIL	---	---	---	X	---	---	---
Woods rose	ROWO	---	---	---	X	---	---	---
antelope bitterbrush	PUTR2	2-10	2-5	---	---	---	5-10	---
low sagebrush	ARAR8	---	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	5-15	---	---	---	---	10-20	---
quaking aspen	POTRT	---	---	---	X	---	---	---

Range site number	025XY009NV	025XY017NV	none	025XY064NV	none	025XY012NV	025XY006NV
Potential production (lb/acre):							
Favorable years	1300	900		1600		1400	2000
Normal years	900	700		1300		1000	1300
Unfavorable years	700	400		1000		700	800

589--SUMINE-NINEMILE-HARCANY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SUMINE	NINEMILE	HARCANY	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Columbia needlegrass	STNE3	---	---	5-10	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	---	20-40	5-10	---	15-25	---	---
Letterman needlegrass	STLE4	---	---	---	---	---	---	40-60
Nevada bluegrass	PONE3	---	---	2-5	---	---	5-10	---
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STH2	2-5	2-8	---	---	---	---	---
Webber ricegrass	STWE	---	---	---	---	2-5	---	---
basin wildrye	ELCI2	5-10	---	---	---	---	60-70	---
bluebunch wheatgrass	AGSP	30-50	10-20	5-10	---	2-5	---	---
bluegrass	POA++	---	2-8	---	---	5-10	---	---
mat muhly	MURI	---	---	---	---	---	2-8	---
mountain brome	BRCA5	2-15	---	15-30	---	---	---	---
pine bluegrass	POSC	---	---	---	---	---	---	---
slender wheatgrass	AGTR	---	---	5-10	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	2-5	---	---
lupine	LUPIN	2-5	---	---	---	---	---	---
tailcup lupine	LUCA	---	---	---	---	---	---	20-40
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10	---
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	20-30	---	---	---	---	---
mountain big sagebrush	ARVA2	10-20	---	10-20	---	---	---	---
sagebrush	ARTEM	---	---	---	---	25-40	---	---
serviceberry	AMELA	---	---	2-10	---	---	---	---
snowberry	SYMPH	---	---	2-5	---	---	---	---
Range site number		024XY029NV	024XY027NV	024XY032NV	none	024XY016NV	025XY003NV	025XY028NV
Potential production (lb/acre):								
Favorable years		1500	1200	2200		350	4500	1700
Normal years		1100	800	1700		250	3500	1400
Unfavorable years		800	600	1200		150	2000	1100

590--TRUNK-MADELINE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		TRUNK	MADELINE	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	2-5	5-10	---	---
Indian ricegrass	ORHY	5-15	---	---	---	---
Sandberg bluegrass	POSE	2-5	---	5-10	---	---
Thurber needlegrass	STH2	20-40	15-20	10-20	---	---
Webber ricegrass	STWE	2-8	---	---	---	---
basin wildrye	ELCI2	2-5	5-10	---	---	---
bluebunch wheatgrass	AGSP	---	30-40	20-50	---	---
bluegrass	POA++	---	---	5-10	---	5-10
mannagrass	GLYCE	---	---	---	---	5-10
meadow barley	HOB2	---	---	---	---	5-10
rush	JUNCU	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	5-10
tufted hairgrass	DECE	---	---	---	---	30-50
Wyoming big sagebrush	ARTRW*	15-25	15-20	---	---	---
antelope bitterbrush	PUTR2	---	2-10	---	---	---
basin big sagebrush	ARTRT*	---	15-20	---	---	---
big sagebrush	ARTR2	---	15-20	---	---	---
low sagebrush	ARAR8	---	---	10-20	---	---
mountain big sagebrush	ARVA2	---	15-20	---	---	---
rabbitbrush	CHRS9	---	2-5	---	---	---
spiny hopsage	GRSP	2-5	---	---	---	---
Range site number		023XY006NV	023XY020NV	023XY031NV	none	023XY025NV
Potential production (lb/acre):						
Favorable years		800	1100	900		4000
Normal years		600	900	700		3000
Unfavorable years		400	600	500		2000

592--TRUNK-POCAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		TRUNK	POCAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	---	---	---	20-40	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Thurber needlegrass	STTH2	40-50	40-50	2-5	2-8	---	---
basin wildrye	ELCI2	---	---	5-10	2-15	---	60-70
bluebunch wheatgrass	AGSP	2-10	2-10	30-50	20-40	---	---
mat muhly	MURI	---	---	---	---	---	2-8
mountain brome	BRCA5	---	---	2-15	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	---	2-5	1-5	---	---
globemallow	SPHAE	1-3	1-3	---	---	---	---
helianthella	HELIA	---	---	---	1-2	---	---
lupine	LUPIN	---	---	2-5	---	---	---
tapertip hawksbeard	CRAC2	---	---	2-5	1-5	---	---
white stoneseed	LIRU4	---	---	---	1-2	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
mountain big sagebrush	ARVA2	---	---	10-20	15-25	---	---
spiny hopsage	GRSP	2-5	2-5	---	---	---	---

Range site number	024XY005NV	024XY005NV	024XY029NV	024XY021NV	none	025XY003NV
Potential production (lb/acre):						
Favorable years	800	800	1500	1400		4500
Normal years	600	600	1100	1000		3500
Unfavorable years	400	400	800	700		2000

593--TRUNK-VANWYPER-PANLEE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		TRUNK	VANWYPER	PANLEE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Indian ricegrass	ORHY	---	---	10-15	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STTH2	40-50	5-15	2-10	40-50	40-50	20-30	---
basin wildrye	ELCI2	---	2-5	---	---	---	---	---
bluebunch wheatgrass	AGSP	2-10	40-60	---	2-10	2-10	20-35	---
bluegrass	POA+	---	2-8	---	---	---	---	---
bottlebrush squirreltail	SIHY	---	---	2-5	---	---	---	---
needleandthread	STCO4	---	---	15-25	---	---	---	---
arrowleaf balsamroot	BASA3	---	2-5	---	---	---	2-5	---
globemallow	SPHAE	1-3	---	---	1-3	1-3	---	---
tapertip hawksbeard	CRAC2	---	2-5	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	25-35	---	---	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	15-25	25-35	---	---	15- 25	---
horsebrush	TETRA3	---	---	2-5	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
spiny hopsage	GRSP	2-5	---	---	2-5	2-5	---	---

Range site number	024XY005NV	024XY028NV	024XY058NV	024XY005NV	024XY005NV	024XY035NV	none
Potential production (lb/acre):							
Favorable years	800	1000	1300	800	800	500	
Normal years	600	700	1000	600	600	400	
Unfavorable years	400	500	700	400	400	250	

594--TRUNK-BURRITA-QUOMUS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		TRUNK	BURRITA	QUOMUS	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Indian ricegrass	ORHY	---	---	---	10-15	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Thurber needlegrass	STTH2	40-50	40-50	20-30	2-10	---	---
basin wildrye	ELCI2	---	---	2-5	---	---	60-70
bluebunch wheatgrass	AGSP	2-10	2-10	30-40	---	---	---
bluegrass	POA++	---	---	2-8	---	---	---
bottlebrush squirreltail	SIHY	---	---	---	2-5	---	---
mat muhly	MURI	---	---	---	---	---	2-8
needleandthread	STCO4	---	---	---	15-25	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
globemallow	SPHAE	1-3	1-3	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	10-15	25-35	---	---
horsebrush	TETRA3	---	---	---	2-5	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
spiny hopsage	GRSP	2-5	2-5	---	---	---	---

Range site number	024XY005NV	024XY005NV	024XY013NV	024XY058NV	none	025XY003NV
Potential production (lb/acre):						
Favorable years	800	800	1000	1300		4500
Normal years	600	600	800	1000		3500
Unfavorable years	400	400	600	700		2000

596--TRUNK-BURRITA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		TRUNK	BURRITA	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	5-15	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10
Thurber needlegrass	STH2	40-50	40-50	---	---	---
basin wildrye	ELCI2	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	2-10	2-10	---	---	---
bottlebrush squirreltail	SIHY	---	---	5-10	---	---
mat muhly	MURI	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	2-8
globemallow	SPHAE	1-3	1-3	---	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	5-10
bud sagebrush	ARSP5	---	---	20-30	---	---
shadscale	ATCO	---	---	30-40	---	---
spiny hopsage	GRSP	2-5	2-5	2-5	---	---
winterfat	EULA5	---	---	2-5	---	---
Range site number		024XY005NV	024XY005NV	024XY002NV	none	025XY003NV
Potential production (lb/acre):						
Favorable years		800	800	750		4500
Normal years		600	600	450		3500
Unfavorable years		400	400	300		2000

597--TRUNK, GRAVELLY-BURRITA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		TRUNK	BURRITA	BURRITA	Inclusion 1	Inclusion 2
Canby bluegrass	POCA	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---
Sandberg bluegrass	POSE	2-5	2-5	---	---	---
Thurber needlegrass	STTH2	15-25	15-25	5-15	---	15-25
Webber ricegrass	STWE	---	---	---	---	5-10
basin wildrye	ELCI2	---	---	2-5	---	---
bluebunch wheatgrass	AGSP	25-40	25-40	40-60	---	15-20
bluegrass	POA++	---	---	2-8	---	2-8
arrowleaf balsamroot	BASA3	---	---	2-5	---	---
balsamroot	BALSA	---	---	---	---	2-5
tapertip hawksbeard	CRAC2	---	---	2-5	---	---
Wyoming big sagebrush	ARTRW	15-25	15-25	---	---	---
big sagebrush	ARTR2	---	---	15-25	---	---
low sagebrush	ARAR8	---	---	---	---	25-35
mountain big sagebrush	ARVA2	---	---	---	---	---
Range site number		025XY019NV	025XY019NV	024XY028NV	none	024XY018NV
Potential production (lb/acre):						
Favorable years		800	800	1000		700
Normal years		600	600	700		500
Unfavorable years		400	400	500		300

600--VALMY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		VALMY	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	2-5	5-15	---
basin wildrye	ELCI2	5-20	---	55-65
bottlebrush squirreltail	SIHY	2-5	5-10	---
creeping wildrye	ELTR3	---	---	5-15
western wheatgrass	AGSM	---	---	5-15
globemallow	SPHAE	1-2	---	---
thelypody	THELY	2-4	---	---
Wyoming big sagebrush	ARTRW	---	---	---
basin big sagebrush	ARTRT	---	---	10-15
big sagebrush	ARTR2	10-25	---	---
black greasewood	SAVE4	20-30	---	2-8
bud sagebrush	ARSP5	---	20-30	---
shadscale	ATCO	---	30-40	---
spiny hopsage	GRSP	5-15	2-5	---
winterfat	EULA5	---	2-5	---
Range site number		024XY022NV	024XY002NV	024XY006NV
Potential production (lb/acre):				
Favorable years		800	750	1500
Normal years		600	450	1100
Unfavorable years		350	300	600

603--VALMY-GOLDRUN COMPLEX, 0 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		VALMY	GOLDRUN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	2-5	30-40	5-15	5-15
Sandberg bluegrass	POSE	---	---	2-8	2-8
Thurber needlegrass	STTH2	---	---	15-25	15-25
basin wildrye	ELCI2	5-20	2-8	---	---
bottlebrush squirreltail	SIHY	2-5	---	2-5	2-5
needleandthread	STCO4	---	5-15	---	---
thickspike wheatgrass	AGDA	---	5-10	---	---
canaigre	RUHY	---	1-3	---	---
globemallow	SPHAE	1-2	---	1-2	1-2
lemon scurfpea	PSLA	---	1-3	---	---
thelypody	THELY	2-4	---	---	---
tufted eveningprimrose	OECE2	---	1-3	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35	25-35
basin big sagebrush	ARTRT	---	25-30	---	---
big sagebrush	ARTR2	10-25	---	---	---
black greasewood	SAVE4	20-30	---	---	---
fourwing saltbush	ATCA2	---	2-8	---	---
spiny hopsage	GRSP	5-15	2-8	5-15	5-15
Range site number		024XY022NV	024XY001NV	024XY020NV	024XY020NV
Potential production (lb/acre):					
Favorable years		800	800	700	700
Normal years		600	500	450	450
Unfavorable years		350	300	300	300

604--VALMY-BUBUS-NEEDLE PEAK COMPLEX, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		VALMY	BUBUS	NEEDLE PEAK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	2-5	---	---	2-5	5-15	---
Sandberg bluegrass	POSE	---	---	---	---	2-8	---
Thurber needlegrass	STTH2	---	---	---	---	15-25	---
basin wildrye	ELCI2	5-20	---	55-65	5-20	---	5-15
bottlebrush squirreltail	SIHY	2-5	5-10	---	2-5	2-5	---
creeping wildrye	ELTR3	---	---	5-15	---	---	---
inland saltgrass	DISPS2	---	---	---	---	---	5-10
western wheatgrass	AGSM	---	---	5-15	---	---	---
globemallow	SPHAE	1-2	---	---	1-2	1-2	---
thelypody	THELY	2-4	---	---	2-4	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	25-35	---
basin big sagebrush	ARTRT	---	---	10-15	---	---	---
big sagebrush	ARTR2	10-25	---	---	10-25	---	---
black greasewood	SAVE4	20-30	15-30	2-8	20-30	---	60-75
bud sagebrush	ARSP5	---	2-8	---	---	---	---
seepweed	SUAED	---	2-8	---	---	---	---
shadscale	ATCO	---	30-50	---	---	---	---
spiny hopsage	GRSP	5-15	---	---	5-15	5-15	---

Range site number	024XY022NV	024XY003NV	024XY006NV	024XY022NV	024XY020NV	024XY011NV
Potential production (lb/acre):	800	600	1500	800	700	500
Favorable years	600	450	1100	600	450	350
Normal years	350	300	600	350	300	200
Unfavorable years						

606--VALMY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		VALMY	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	2-5	---	---
basin wildrye	ELCI2	5-20	55-65	---
bottlebrush squirreltail	SIHY	2-5	---	5-10
creeping wildrye	ELTR3	---	5-15	---
western wheatgrass	AGSM	---	5-15	---
globemallow	SPHAE	1-2	---	---
thelypody	THELY	2-4	---	---
Wyoming big sagebrush	ARTRW	---	---	---
basin big sagebrush	ARTRT	---	10-15	---
big sagebrush	ARTR2	10-25	---	---
black greasewood	SAVE4	20-30	2-8	15-30
bud sagebrush	ARSP5	---	---	2-8
seepweed	SUAED	---	---	2-8
shadscale	ATCO	---	---	30-50
spiny hopsage	GRSP	5-15	---	---

Range site number	024XY022NV	024XY006NV	024XY003NV
Potential production (lb/acre):			
Favorable years	800	1500	600
Normal years	600	1100	450
Unfavorable years	350	600	300

611--WESO LOAMY SAND, 4 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		WESO	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	15-30	2-5	5-15
Sandberg bluegrass	POSE	---	---	---	---	2-8
Thurber needlegrass	STH2	---	---	---	---	15-25
basin wildrye	ELCI2	---	---	5-10	5-20	---
bottlebrush squirreltail	SIHY	5-10	5-10	---	2-5	2-5
needleandthread	STCO4	---	---	30-40	---	---
globemallow	SPHAE	---	---	---	1-2	1-2
thelypody	THELY	---	---	---	2-4	---
Wyoming big sagebrush	ARTRW	---	---	---	---	25-35
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	15-25	10-25	---
black greasewood	SAVE4	---	---	---	20-30	---
bud sagebrush	ARSP5	20-30	20-30	---	---	---
shadscale	ATCO	30-40	30-40	---	---	---
spiny hopsage	GRSP	2-5	2-5	1-5	5-15	5-15
winterfat	EULA5	2-5	2-5	---	---	---
Range site number		024XY002NV	024XY002NV	024XY017NV	024XY022NV	024XY020NV
Potential production (lb/acre):						
Favorable years		750	750	900	800	700
Normal years		450	450	700	600	450
Unfavorable years		300	300	500	350	300

613--WESO-OROVADA-SHABLISS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		WESO	OROVADA	SHABLISS	Inclusion 1
Indian ricegrass	ORHY	5-15	5-15	---	30-40
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STH2	---	15-25	40-50	---
basin wildrye	ELC12	---	---	---	2-8
bluebunch wheatgrass	AGSP	---	---	2-10	---
bottlebrush squirreltail	SIHY	5-10	2-5	---	---
needleandthread	STCO4	---	---	---	5-15
thickspike wheatgrass	AGDA	---	---	---	5-10
canaigre	RUHY	---	---	---	1-3
globemallow	SPHAE	---	1-2	1-3	---
lemon scurfpea	PSLA	---	---	---	1-3
tufted eveningprimrose	OECE2	---	---	---	1-3
Wyoming big sagebrush	ARTRW	---	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	---	25-30
bud sagebrush	ARSP5	20-30	---	---	---
fourwing saltbush	ATCA2	---	---	---	2-8
shadscale	ATCO	30-40	---	---	---
spiny hopsage	GRSP	2-5	5-15	2-5	2-8
winterfat	EULA5	2-5	---	---	---
Range site number		024XY002NV	024XY020NV	024XY005NV	024XY001NV
Potential production (lb/acre):					
Favorable years		750	700	800	800
Normal years		450	450	600	500
Unfavorable years		300	300	400	300

614--WESO SILT LOAM, MODERATELY SALINE, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		WESO	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	5-15	---
bottlebrush squirreltail	SIHY	5-10	5-10	5-10
black greasewood	SAVE4	15-30	---	15-30
bud sagebrush	ARSP5	2-8	20-30	2-8
seepweed	SUAED	2-8	---	2-8
shadscale	ATCO	30-50	30-40	30-50
spiny hopsage	GRSP	---	2-5	---
winterfat	EULA5	---	2-5	---
Range site number		024XY003NV	024XY002NV	024XY003NV
Potential production (lb/acre):				
Favorable years		600	750	600
Normal years		450	450	450
Unfavorable years		300	300	300

615--WESO FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		WESO	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	5-15
Sandberg bluegrass	POSE	---	---	2-8
Thurber needlegrass	STH2	---	---	15-25
bottlebrush squirreltail	SIHY	5-10	5-10	2-5
globemallow	SPHAE	---	---	1-2
Wyoming big sagebrush	ARTRW	---	---	25-35
bud sagebrush	ARSP5	20-30	20-30	---
shadscale	ATCO	30-40	30-40	---
spiny hopsage	GRSP	2-5	2-5	5-15
winterfat	EULA5	2-5	2-5	---

Range site number	024XY002NV	024XY002NV	024XY020NV
Potential production (lb/acre):			
Favorable years	750	750	700
Normal years	450	450	450
Unfavorable years	300	300	300

617--WESO LOAM, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		WESO	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	---	---
Thurber needlegrass	STH2	---	---	40-50	---
bluebunch wheatgrass	AGSP	---	---	2-10	---
bottlebrush squirreltail	SIHY	5-10	5-10	---	5-10
globemallow	SPHA	---	---	1-3	---
Wyoming big sagebrush	ARTRW	---	---	25-35	---
black greasewood	SAVE4	---	---	---	15-30
bud sagebrush	ARSP5	20-30	20-30	---	2-8
seepweed	SUAED	---	---	---	2-8
shadscale	ATCO	30-40	30-40	---	30-50
spiny hopsage	GRSP	2-5	2-5	2-5	---
winterfat	EULA5	2-5	2-5	---	---

Range site number	024XY002NV	024XY002NV	024XY005NV	024XY003NV
Potential production (lb/acre):				
Favorable years	750	750	800	600
Normal years	450	450	600	450
Unfavorable years	300	300	400	300

618--WESO-KELK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		WESO	KELK	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	---	---	5-15
Thurber needlegrass	STTH2	---	---	40-50	---
basin wildrye	ELCI2	---	55-65	---	---
bluebunch wheatgrass	AGSP	---	---	2-10	---
bottlebrush squirreltail	SIHY	5-10	---	---	5-10
creeping wildrye	ELTR3	---	5-15	---	---
western wheatgrass	AGSM	---	5-15	---	---
globemallow	SPHAE	---	---	1-3	---
Wyoming big sagebrush	ARTRW	---	---	25-35	---
basin big sagebrush	ARTRT	---	10-15	---	---
black greasewood	SAVE4	---	2-8	---	---
bud sagebrush	ARSP5	20-30	---	---	20-30
shadscale	ATCO	30-40	---	---	30-40
spiny hopsage	GRSP	2-5	---	2-5	2-5
winterfat	EULA5	2-5	---	---	2-5

Range site number	024XY002NV	024XY006NV	024XY005NV	024XY002NV
Potential production (lb/acre):				
Favorable years	750	1500	800	750
Normal years	450	1100	600	450
Unfavorable years	300	600	400	300

619--WESO-REBEL COMPLEX, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		WESO	REBEL	Inclusion 1
Indian ricegrass	ORHY	5-15	---	5-15
Thurber needlegrass	STTH2	---	40-50	---
bluebunch wheatgrass	AGSP	---	2-10	---
bottlebrush squirreltail	SIHY	5-10	---	5-10
globemallow	SPHAE	---	1-3	---
Wyoming big sagebrush	ARTRW	---	25-35	---
bud sagebrush	ARSP5	20-30	---	20-30
shadscale	ATCO	30-40	---	30-40
spiny hopsage	GRSP	2-5	2-5	2-5
winterfat	EULA5	2-5	---	2-5

Range site number	024XY002NV	024XY005NV	024XY002NV
Potential production (lb/acre):			
Favorable years	750	800	750
Normal years	450	600	450
Unfavorable years	300	400	300

620--CARSTUMP-SOUGHE-NINEMILE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		CARSTUMP	SOUGHE	NINEMILE	Inclusion 1	Inclusion 2
Canby bluegrass	POCA	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	5-10	---
Sandberg bluegrass	POSE	---	2-5	2-10	---	---
Thurber needlegrass	STTH2	10-20	15-25	10-20	---	5-15
Webber ricegrass	STWE	---	---	5-10	---	---
basin wildrye	ELCI2	2-8	---	---	60-70	---
bluebunch wheatgrass	AGSP	20-35	25-40	20-30	---	60-80
bluegrass	POA++	2-10	---	---	---	---
mat muhly	MURI	---	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---
balsamroot	BALSA	---	---	2-5	---	---
Wyoming big sagebrush	ARTRW	---	15-25	---	---	5-15
antelope bitterbrush	PUTR2	2-8	---	---	---	1-5
basin big sagebrush	ARTRT	---	---	---	5-10	---
big sagebrush	ARTR2	10-15	---	---	---	---
low sagebrush	ARAR8	---	---	25-35	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---

Range site number	025XY014NV	025XY019NV	025XY022NV	025XY003NV	025XY015NV
Potential production (lb/acre):					
Favorable years	1000	800	600	4500	1000
Normal years	800	600	400	3500	700
Unfavorable years	600	400	250	2000	500

631--BURRITA-PANLEE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BURRITA	PANLEE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Indian ricegrass	ORHY	---	10-15	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10	---
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegrass	STH2	5-15	2-10	40-50	40-50	---	---
basin wildrye	ELCI2	2-5	---	---	---	60-70	---
bluebunch wheatgrass	AGSP	40-60	---	2-10	2-10	---	---
bluegrass	POA++	2-8	---	---	---	---	---
bottlebrush squirreltail	SIHY	---	2-5	---	---	---	---
mat muhly	MURI	---	---	---	---	2-8	---
needleandthread	STCO4	---	15-25	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---
globemallow	SPHAE	---	---	1-3	1-3	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	5-10	---
big sagebrush	ARTR2	15-25	25-35	---	---	---	---
horsebrush	TETRA3	---	2-5	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
spiny hopsage	GRSP	---	---	2-5	2-5	---	---
Range site number		024XY028NV	024XY058NV	024XY005NV	024XY005NV	025XY003NV	none
Potential production (lb/acre):							
Favorable years		1000	1300	800	800	4500	
Normal years		700	1000	600	600	3500	
Unfavorable years		500	700	400	400	2000	

633--BURRITA-MIDRAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BURRITA	MIDRAW	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-5	2-5	2-8	---	---
Thurber needlegrass	STH2	15-25	15-25	15-30	---	---
Webber ricegrass	STWE	---	---	2-8	---	---
alpine timothy	PHAL2	---	---	---	---	5-10
bluebunch wheatgrass	AGSP	25-40	25-40	20-40	---	---
sedge	CAREX	---	---	---	---	5-10
tufted hairgrass	DECE	---	---	---	---	30-60
Sierra clover	TRWO	---	---	---	---	2-5
cinquefoil	POTEN	---	---	---	---	2-5
Wyoming big sagebrush	ARTRW	15-25	15-25	---	---	---
early sagebrush	ARLO9	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---
sagebrush	ARTEM	---	---	20-30	---	---
Range site number		025XY019NV	025XY019NV	025XY018NV	none	025XY005NV
Potential production (lb/acre):						
Favorable years		800	800	800		3000
Normal years		600	600	600		1700
Unfavorable years		400	400	400		1000

634--BURRITA-DEVADA-ZYMANS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BURRITA	DEVADA	ZYMANS	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	2-5	5-10	---	---
Indian ricegrass	ORHY	---	---	---	---	25-35	---
Nevada bluegrass	PONE3	---	---	---	---	---	2-8
Sandberg bluegrass	POSE	---	---	---	5-10	---	---
Thurber needlegrass	STTH2	10-20	15-20	15-20	10-20	5-10	---
Webber ricegrass	STWE	---	5-15	---	---	---	---
basin wildrye	ELCI2	2-10	---	5-10	---	---	65-75
bluebunch wheatgrass	AGSP	40-60	15-30	30-40	20-50	---	---
bluegrass	POA++	---	2-10	---	5-10	---	---
bottlebrush squirreltail	SIHY	---	3-7	---	---	---	---
balsamroot	BALSA	---	2-5	---	---	---	---
bluebells	MERTE	---	2-5	---	---	---	---
erigonum	ERIOG	---	2-5	---	---	---	---
globemallow	SPHAE	---	---	---	---	2-4	---
phlox	PHLOX	---	2-5	---	---	---	---
Douglas rabbitbrush	CHVI8	---	2-5	---	---	2-5	---
Wyoming big sagebrush	ARTRW	10-20	---	15-20	---	25-35	---
Wyoming big sagebrush	ARTRW*	---	---	---	---	25-35	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
antelope bitterbrush	PUTR2	2-5	1-5	2-10	---	---	---
basin big sagebrush	ARTR2*	---	---	15-20	---	---	5-10
big sagebrush	ARTR2	10-20	---	15-20	---	---	---
low sagebrush	ARAR8	---	15-25	---	10-20	---	---
mountain big sagebrush	ARVA2	10-20	---	15-20	---	---	---
rabbitbrush	CHRY59	---	---	2-5	---	---	---
rubber rabbitbrush	CHNA2	---	---	---	---	---	1-3
shadscale	ATCO	---	---	---	---	2-5	---
spiny hopsage	GRSP	---	---	---	---	2-5	---

Range site number	023XY039NV	023XY060NV	023XY020NV	023XY031NV	024XY045NV	023XY009NV
Potential production (lb/acre):						
Favorable years	900	500	1100	900	350	5500
Normal years	700	375	900	700	200	4500
Unfavorable years	500	250	600	500	100	2500

636--BURRITA-RUBBLE LAND-CLEMENTINE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BURRITA	RUBBLE LAND	CLEMENTINE	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	2-8	---	---
Nevada bluegrass	PONE3	---	---	5-10	---	---	---
Sandberg bluegrass	POSE	---	---	---	2-8	---	---
Thurber needlegrass	STTH2	10-20	---	---	5-15	10-20	---
basin wildrye	ELCI2	2-10	---	40-60	---	2-10	---
bluebunch wheatgrass	AGSP	40-60	---	---	40-60	40-60	---
bluegrass	POA++	---	---	---	2-8	---	5-10
mannagrass	GLYCE	---	---	---	---	---	5-10
meadow barley	HORR2	---	---	---	---	---	5-10
rush	JUNCU	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	5-10
tufted hairgrass	DECE	---	---	---	---	---	30-50
Hooker balsamroot	BAHO	---	---	---	2-5	---	---
povertyweed	IVAX	---	---	2-5	---	---	---
tapertip hawksbeard	CRAC2	---	---	---	1-2	---	---
thelypody	THELY	---	---	1-3	---	---	---
Wyoming big sagebrush	ARTRWQ	10-20	---	---	---	10-20	---
antelope bitterbrush	PUTR2	2-5	---	---	---	2-5	---
basin big sagebrush	ARTRTQ	---	---	5-15	---	---	---
big sagebrush	ARTR2	10-20	---	---	---	10-20	---
mountain big sagebrush	ARVA2	10-20	---	---	---	10-20	---
sagebrush	ARTEM	---	---	---	10-20	---	---

Range site number	023XY039NV	none	023XY005NV	023XY037NV	023XY039NV	023XY025NV
Potential production (lb/acre):						
Favorable years	900		3000	700	900	4000
Normal years	700		2000	600	700	3000
Unfavorable years	500		1300	400	500	2000

637--BURRITA-DEWAR ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BURRITA	DEWAR	BURRITA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	2-5	2-5	---	---
Indian ricegrass	ORHY	---	5-15	5-15	---	---	10-15	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	2-5	2-5	---	---	---	---
Thurber needlegrass	STTH2	20-30	20-40	20-40	15-20	15-20	2-8	---
Webber ricegrass	STWE	---	2-8	2-8	---	---	2-5	---
basin wildrye	ELCI2	---	2-5	2-5	5-10	5-10	---	40-60
bluebunch wheatgrass	AGSP	20-35	---	---	30-40	30-40	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	---	2-5	---
desert needlegrass	STSP3	---	---	---	---	---	10-15	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---	---
povertyweed	IVAX	---	---	---	---	---	---	2-5
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---	---
thelypody	THELY	---	---	---	---	---	---	1-3
Wyoming big sagebrush	ARTRWQ	---	15-25	15-25	15-20	15-20	20-30	---
antelope bitterbrush	PUTR2	---	---	---	2-10	2-10	---	---
basin big sagebrush	ARTRTQ	---	---	---	15-20	15-20	---	5-15
big sagebrush	ARTR2	15- 25	---	---	15-20	15-20	---	---
mountain big sagebrush	ARVA2	---	---	---	15-20	15-20	---	---
rabbitbrush	CHRS9	---	---	---	2-5	2-5	---	---
spiny hopsage	GRSP	---	2-5	2-5	---	---	10-25	---

Range site number	024XY035NV	023XY006NV	023XY006NV	023XY020NV	023XY020NV	023XY038NV	023XY005NV
Potential production (lb/acre):							
Favorable years	500	800	800	1100	1100	600	3000
Normal years	400	600	600	900	900	450	2000
Unfavorable years	250	400	400	600	600	300	1300

638--BURRITA-SOUGHE-PANLEE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BURRITA	SOUGHE	PANLEE	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	---	10-15	15-30	---
Nevada bluegrass	PONE3	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-8	---	---	---	---
Thurber needlegrass	STTH2	15-25	40-50	2-10	---	---
basin wildrye	ELCI2	---	---	---	5-10	60-70
bluebunch wheatgrass	AGSP	---	2-10	---	---	---
bottlebrush squirreltail	SIHY	2-5	---	2-5	---	---
mat muhly	MURI	---	---	---	---	2-8
needleandthread	STCO4	---	---	15-25	30-40	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8
globemallow	SPHAE	1-2	1-3	---	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	25-35	15-25	---
horsebrush	TETRA3	---	---	2-5	---	---
spiny hopsage	GRSP	5-15	2-5	---	1-5	---

Range site number	024XY020NV	024XY005NV	024XY058NV	024XY017NV	025XY003NV
Potential production (lb/acre):					
Favorable years	700	800	1300	900	4500
Normal years	450	600	1000	700	3500
Unfavorable years	300	400	700	500	2000

640--CLEMENTINE SILT LOAM, DRAINED

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		CLEMENTINE	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-10	5-15	---
alkali sacaton	SPAI	---	---	5-15
basin wildrye	ELCI2	60-70	---	50-60
creeping wildrye	ELTR3	---	---	---
inland saltgrass	DISPS2	---	2-5	2-8
mat muhly	MURI	2-8	2-5	---
sedge	CAREX	---	2-10	---
streambank wheatgrass	AGDAR	2-8	---	---
wildrye	ELVMU	---	60-80	---
basin big sagebrush	ARTRT	5-10	---	---
black greasewood	SAVE4	---	---	5-15
rubber rabbitbrush	CHNA2	---	---	2-5
willow	SALIX	---	5-10	---
Range site number		025XY003NV	025XY001NV	024XY007NV
Potential production (lb/acre):				
Favorable years		4500	3500	1900
Normal years		3500	2500	1400
Unfavorable years		2000	1800	800

641--CLEMENTINE, DRAINED-PARANAT COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		CLEMENTINE	PARANAT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	---	---	---	2-5	---
Nevada bluegrass	PONE3	5-10	5-15	---	---	---	---
alkali sacaton	SPAI	---	---	5-15	---	---	---
basin wildrye	ELCI2	60-70	---	50-60	---	5-20	55-65
bottlebrush squirreltail	SIHY	---	---	---	5-10	2-5	---
creeping wildrye	ELTR3	---	---	---	---	---	5-15
inland saltgrass	DISPS2	---	2-5	2-8	---	---	---
mat muhly	MURI	2-8	2-5	---	---	---	---
sedge	CAREX	---	2-10	---	---	---	---
streambank wheatgrass	AGDAR	2-8	---	---	---	---	---
western wheatgrass	AGSM	---	---	---	---	---	5-15
wildrye	ELYMU	---	60-80	---	---	---	---
globemallow	SPHAE	---	---	---	---	1-2	---
thelypody	THELY	---	---	---	---	2-4	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	5-10	---	---	---	---	10-15
big sagebrush	ARTR2	---	---	---	---	10-25	---
black greasewood	SAVE4	---	---	5-15	15-30	20-30	2-8
bud sagebrush	ARSP5	---	---	---	2-8	---	---
rubber rabbitbrush	CHNA2	---	---	2-5	---	---	---
seepweed	SUAED	---	---	---	2-8	---	---
shadscale	ATCO	---	---	---	30-50	---	---
spiny hopsage	GRSP	---	---	---	---	5-15	---
willow	SALIX	---	5-10	---	---	---	---

Range site number	025XY003NV	025XY001NV	024XY007NV	024XY003NV	024XY022NV	024XY006NV
Potential production (lb/acre):						
Favorable years	4500	3500	1900	600	800	1500
Normal years	3500	2500	1400	450	600	1100
Unfavorable years	2000	1800	800	300	350	600

642--CLEMENTINE-ROSE CREEK COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		CLEMENTINE	ROSE CREEK	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-15	---	---	---
basin wildrye	ELCI2	---	55-65	55-65	55-65
creeping wildrye	ELTR3	---	5-15	5-15	5-15
inland saltgrass	DISPS2	2-5	---	---	---
mat muhly	MURI	2-5	---	---	---
sedge	CAREX	2-10	---	---	---
western wheatgrass	AGSM	---	5-15	5-15	5-15
wildrye	ELYMU	60-80	---	---	---
basin big sagebrush	ARTRT	---	10-15	10-15	10-15
black greasewood	SAVE4	---	2-8	2-8	2-8
willow	SALIX	5-10	---	---	---
Range site number		025XY001NV	024XY006NV	024XY006NV	024XY006NV
Potential production (lb/acre):					
Favorable years		3500	1500	1500	1500
Normal years		2500	1100	1100	1100
Unfavorable years		1800	600	600	600

646--CLEMENTINE-PARANAT COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		CLEMENTINE	PARANAT	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-15	---	---	---
alkali bluegrass	POJU	---	2-10	---	---
alkali cordgrass	SPGR	---	2-5	---	---
alkali sacaton	SPAI	---	2-10	5-15	5-15
basin wildrye	ELCI2	---	30-40	10-20	50-60
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	2-5	2-5	5-10	2-8
mat muhly	MURI	2-5	---	---	---
other perennial grasses	PPGG	---	---	5-10	---
sedge	CAREX	2-10	---	---	---
wildrye	ELYMU	60-80	---	---	---
basin big sagebrush	ARTRT	---	2-10	---	---
black greasewood	SAVE4	---	---	5-15	5-15
rubber rabbitbrush	CHNA2	---	---	2-5	2-5
shadscale	ATCO	---	---	5-15	---
silver buffaloberry	SHAR	---	15-30	15-30	---
willow	SALIX	5-10	---	---	---

Range site number	025XY001NV	024XY063NV	024XY064NV	024XY007NV
Potential production (lb/acre):				
Favorable years	3500	1800	1400	1900
Normal years	2500	1400	1000	1400
Unfavorable years	1800	900	700	800

651--BURRITA-SOUGHE-ATLOW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BURRITA	SOUGHE	ATLOW	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	5-15	5-15	5-15	---	---
Sandberg bluegrass	POSE	---	2-8	---	---	---	---
Thurber needlegrass	STH2	40-50	15-25	15-30	15-30	40-50	---
bluebunch wheatgrass	AGSP	2-10	---	---	---	2-10	---
bottlebrush squirreltail	SIHY	---	2-5	---	---	---	---
globemallow	SPHAE	1-3	1-2	2-5	2-5	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---	25-35	---
black sagebrush	ARARN	---	---	25-35	25-35	---	---
spiny hopsage	GRSP	2-5	5-15	---	---	2-5	---
Range site number		024XY005NV	024XY020NV	024XY030NV	024XY030NV	024XY005NV	none
Potential production (lb/acre):							
Favorable years		800	700	500	500	800	
Normal years		600	450	350	350	600	
Unfavorable years		400	300	250	250	400	

652--BURRITA-HAVINGTON-RELUCTAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BURRITA	HAVINGDON	RELUCTAN	Inclusion 1	Inclusion 2	Inclusion 3
Cusick bluegrass	POCU3	---	---	---	---	---	---
Idaho fescue	FEID	---	---	20-40	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegrass	STTH2	40-50	20-30	2-8	15-25	40-50	---
Webber ricegrass	STWE	---	---	---	5-10	---	---
basin wildrye	ELCI2	---	---	2-15	---	---	---
bluebunch wheatgrass	AGSP	2-10	20-35	20-40	15-20	2-10	---
bluegrass	POA++	---	---	---	2-8	---	---
arrowleaf balsamroot	BASA3	---	2-5	1-5	---	---	---
balsamroot	BALSA	---	---	---	2-5	---	---
globemallow	SPHAE	1-3	---	---	---	1-3	---
helianthella	HELIA	---	---	1-2	---	---	---
tapertip hawksbeard	CRAC2	---	2-5	1-5	---	---	---
white stoneseed	LIRU4	---	---	1-2	---	---	---
Wyoming big sagebrush	ARTRW	25-35	---	---	---	25-35	---
big sagebrush	ARTR2	---	15- 25	---	---	---	---
low sagebrush	ARAR8	---	---	---	25-35	---	---
mountain big sagebrush	ARVA2	---	---	15-25	---	---	---
spiny hopsage	GRSP	2-5	---	---	---	2-5	---

Range site number	024XY005NV	024XY035NV	024XY021NV	024XY018NV	024XY005NV	none
Potential production (lb/acre):						
Favorable years	800	500	1400	700	800	
Normal years	600	400	1000	500	600	
Unfavorable years	400	250	700	300	400	

653--BURRITA-VANWYPER-HAVINGDON ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BURRITA	VANWYPER	HAVINGDON	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Indian ricegrass	ORHY	---	---	---	---	---	---	2-5
Nevada bluegrass	PONE3	---	---	---	---	---	5-10	---
Sandberg bluegrass	POSE	---	2-5	---	---	---	---	---
Thurber needlegrass	STTH2	5-15	15-25	20-30	10-20	---	---	---
basin wildrye	ELCI2	2-5	---	---	2-8	---	60-70	---
bluebunch wheatgrass	AGSP	40-60	25-40	20-35	20-35	---	---	---
bluegrass	POA++	2-8	---	---	2-10	---	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	---	---	2-10
desert needlegrass	STSP3	---	---	---	---	---	---	2-10
mat muhly	MURI	---	---	---	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8	---
arrowleaf balsamroot	BASA3	2-5	---	2-5	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	2-5	---	---	---	---
Wyoming big sagebrush	ARTRW	---	15-25	---	---	---	---	---
antelope bitterbrush	PUTR2	---	---	---	2-8	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10	---
big sagebrush	ARTR2	15-25	---	15- 25	10-15	---	---	---
bud sagebrush	ARSP5	---	---	---	---	---	---	15-30
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
shadscale	ATCO	---	---	---	---	---	---	30-50
Range site number		024XY028NV	025XY019NV	024XY035NV	025XY014NV	none	025XY003NV	024XY025NV
Potential production (lb/acre):								
Favorable years		1000	800	500	1000		4500	250
Normal years		700	600	400	800		3500	150
Unfavorable years		500	400	250	600		2000	75

654--BURRITA-PANLEE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BURRITA	PANLEE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	5-15	---	5-15	10-15	2-5
Sandberg bluegrass	POSE	---	2-8	---	2-8	---	---
Thurber needlegrass	STTH2	40-50	15-25	---	15-25	2-10	---
bluebunch wheatgrass	AGSP	2-10	---	---	---	---	---
bottlebrush squirreltail	SIHY	---	2-5	---	2-5	2-5	2-10
desert needlegrass	STSP3	---	---	---	---	---	2-10
needleandthread	STCO4	---	---	---	---	15-25	---
globemallow	SPHAE	1-3	1-2	---	1-2	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	25-35	---
bud sagebrush	ARSP5	---	---	---	---	---	15-30
horsebrush	TETRA3	---	---	---	---	2-5	---
shadscale	ATCO	---	---	---	---	---	30-50
spiny hopsage	GRSP	2-5	5-15	---	5-15	---	---
Range site number		024XY005NV	024XY020NV	none	024XY020NV	024XY058NV	024XY025NV
Potential production (lb/acre):							
Favorable years		800	700		700	1300	250
Normal years		600	450		450	1000	150
Unfavorable years		400	300		300	700	75

655--SOUGHE-HOOT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		SOUGHE	HOOE	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	2-5	---	---	10-15
Sandberg bluegrass	POSE	2-8	---	---	---	---
Thurber needlegrass	STTH2	15-25	---	---	40-50	2-10
bluebunch wheatgrass	AGSP	---	---	---	2-10	---
bottlebrush squirreltail	SIHY	2-5	2-10	---	---	2-5
desert needlegrass	STSP3	---	2-10	---	---	---
needleandthread	STCO4	---	---	---	---	15-25
globemallow	SPHAE	1-2	---	---	1-3	---
Wyoming big sagebrush	ARTRW	25-35	---	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	25-35
bud sagebrush	ARSP5	---	15-30	---	---	---
horsebrush	TETRA3	---	---	---	---	2-5
shadscale	ATCO	---	30-50	---	---	---
spiny hopsage	GRSP	5-15	---	---	2-5	---
Range site number		024XY020NV	024XY025NV	none	024XY005NV	024XY058NV
Potential production (lb/acre):						
Favorable years		700	250		800	1300
Normal years		450	150		600	1000
Unfavorable years		300	75		400	700

657--BURRITA-SNOWMORE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BURRITA	SNOWMORE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	---	---	5-15	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	2-8	2-5	---	---
Thurber needlegrass	STTH2	40-50	40-50	---	15-25	15-25	20-30	---
basin wildrye	ELCI2	---	---	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	2-10	2-10	---	---	25-40	20-35	---
bottlebrush squirreltail	SIHY	---	---	---	2-5	---	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	---	---	---	---	2-5	---
globemallow	SPHAE	1-3	1-3	---	1-2	---	---	---
tapertip hawksbeard	CRAC2	---	---	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35	15-25	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	---	---	---	15- 25	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
spiny hopsage	GRSP	2-5	2-5	---	5-15	---	---	---
Range site number		024XY005NV	024XY005NV	none	024XY020NV	025XY019NV	024XY035NV	025XY003NV
Potential production (lb/acre):								
Favorable years		800	800		700	800	500	4500
Normal years		600	600		450	600	400	3500
Unfavorable years		400	400		300	400	250	2000

658--BURRITA-PANLEE-BURRITA, VERY GRAVELLY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BURRITA	PANLEE	BURRITA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Indian ricegrass	ORHY	---	10-15	---	2-5	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STTH2	20-30	2-10	40-50	---	5-15	40-50	---
basin wildrye	ELCI2	---	---	---	---	2-5	---	---
bluebunch wheatgrass	AGSP	20-35	---	2-10	---	40-60	2-10	---
bluegrass	POA++	---	---	---	---	2-8	---	---
bottlebrush squirreltail	SIHY	---	2-5	---	2-10	---	---	---
desert needlegrass	STSP3	---	---	---	2-10	---	---	---
needleandthread	STCO4	---	15-25	---	---	---	---	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	2-5	---	---
globemallow	SPHAE	---	---	1-3	---	---	1-3	---
tapertip hawkbeard	CRAC2	2-5	---	---	---	2-5	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35	---	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	15- 25	25-35	---	---	15-25	---	---
bud sagebrush	ARSP5	---	---	---	15-30	---	---	---
horsebrush	TETRA3	---	2-5	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
shadscale	ATCO	---	---	---	30-50	---	---	---
spiny hopsage	GRSP	---	---	2-5	---	---	2-5	---

Range site number	024XY035NV	024XY058NV	024XY005NV	024XY025NV	024XY028NV	024XY005NV	none
Potential production (lb/acre):							
Favorable years	500	1300	800	250	1000	800	
Normal years	400	1000	600	150	700	600	
Unfavorable years	250	700	400	75	500	400	

660--OXCOREL-BEOSKA-WHIRLO ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		OXCOREL	BEOSKA	WHIRLO	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15	---	5-15	---
Sandberg bluegrass	POSE	---	---	---	2-8	---	2-8	---
Thurber needlegrass	STH2	---	---	---	15-25	---	15-25	---
basin wildrye	ELCI2	---	---	---	---	55-65	---	---
bottlebrush squirreltail	SIHY	5-10	5-10	5-10	2-5	---	2-5	5-10
creeping wildrye	ELTR3	---	---	---	---	5-15	---	---
western wheatgrass	AGSM	---	---	---	---	5-15	---	---
globemallow	SPHAE	---	---	---	1-2	---	1-2	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	10-15	---	---
black greasewood	SAVE4	---	---	---	---	2-8	---	15-30
bud sagebrush	ARSP5	20-30	20-30	20-30	---	---	---	2-8
seepweed	SUAED	---	---	---	---	---	---	2-8
shadscale	ATCO	30-40	30-40	30-40	---	---	---	30-50
spiny hopsage	GRSP	2-5	2-5	2-5	5-15	---	5-15	---
winterfat	EULA5	2-5	2-5	2-5	---	---	---	---

Range site number	024XY002NV	024XY002NV	024XY002NV	024XY020NV	024XY006NV	024XY020NV	024XY003NV
Potential production (lb/acre):							
Favorable years	750	750	750	700	1500	700	600
Normal years	450	450	450	450	1100	450	450
Unfavorable years	300	300	300	300	600	300	300

661--OXCOREL-OROVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		OXCOREL	OROVADA	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	---	5-15
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STTH2	---	15-25	40-50	---
bluebunch wheatgrass	AGSP	---	---	2-10	---
bottlebrush squirreltail	SIHY	5-10	2-5	---	5-10
globemallow	SPHAE	---	1-2	1-3	---
Wyoming big sagebrush	ARTRW	---	25-35	25-35	---
bud sagebrush	ARSP5	20-30	---	---	20-30
shadscale	ATCO	30-40	---	---	30-40
spiny hopsage	GRSP	2-5	5-15	2-5	2-5
winterfat	EULA5	2-5	---	---	2-5
Range site number		024XY002NV	024XY020NV	024XY005NV	024XY002NV
Potential production (lb/acre):					
Favorable years		750	700	800	750
Normal years		450	450	600	450
Unfavorable years		300	300	400	300

663--OXCOREL-WESO-BEOSKA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		OXCOREL	WESO	BEOSKA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	5-15	---	5-15	---	5-15
Sandberg bluegrass	POSE	---	---	---	---	---	---	2-8
Thurber needlegrass	STTH2	---	---	---	---	---	40-50	15-25
basin wildrye	ELCI2	---	---	---	55-65	---	---	---
bluebunch wheatgrass	AGSP	---	---	---	---	---	2-10	---
bottlebrush squirreltail	SIHY	5-10	5-10	5-10	---	5-10	---	2-5
creeping wildrye	ELTR3	---	---	---	5-15	---	---	---
western wheatgrass	AGSM	---	---	---	5-15	---	---	---
globemallow	SPHAE	---	---	---	---	---	1-3	1-2
Wyoming big sagebrush	ARTRW	---	---	---	---	---	25-35	25-35
basin big sagebrush	ARTRT	---	---	---	10-15	---	---	---
black greasewood	SAVE4	---	---	---	2-8	---	---	---
bud sagebrush	ARSP5	20-30	20-30	20-30	---	20-30	---	---
shadscale	ATCO	30-40	30-40	30-40	---	30-40	---	---
spiny hopsage	GRSP	2-5	2-5	2-5	---	2-5	2-5	5-15
winterfat	EULA5	2-5	2-5	2-5	---	2-5	---	---

Range site number	024XY002NV	024XY002NV	024XY002NV	024XY006NV	024XY002NV	024XY005NV	024XY020NV
Potential production (lb/acre):							
Favorable years	750	750	750	1500	750	800	700
Normal years	450	450	450	1100	450	600	450
Unfavorable years	300	300	300	600	300	400	300

664--OXCOREL-GOLCONDA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		OXCOREL	GOLCONDA	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	---	5-15
Sandberg bluegrass	POSE	---	---	---	2-8
Thurber needlegrass	STH2	---	---	---	15-25
basin wildrye	ELCI2	---	---	55-65	---
bottlebrush squirreltail	SIHY	5-10	5-10	---	2-5
creeping wildrye	ELTR3	---	---	5-15	---
western wheatgrass	AGSM	---	---	5-15	---
globemallow	SPHAE	---	---	---	1-2
Wyoming big sagebrush	ARTRW	---	---	---	25-35
basin big sagebrush	ARTRT	---	---	10-15	---
black greasewood	SAVE4	---	---	2-8	---
bud sagebrush	ARSP5	20-30	20-30	---	---
shadscale	ATCO	30-40	30-40	---	---
spiny hopsage	GRSP	2-5	2-5	---	5-15
winterfat	EULA5	2-5	2-5	---	---
Range site number		024XY002NV	024XY002NV	024XY006NV	024XY020NV
Potential production (lb/acre):					
Favorable years		750	750	1500	700
Normal years		450	450	1100	450
Unfavorable years		300	300	600	300

665--OXCOREL-SNAPP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		OXCOREL	SNAPP	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15	5-15
Sandberg bluegrass	POSE	---	2-8	---	2-8	---
Thurber needlegrass	STTH2	---	15-25	---	15-25	---
bottlebrush squirreltail	SIHY	5-10	2-5	5-10	2-5	5-10
globemallow	SPHAE	---	1-2	---	1-2	---
Wyoming big sagebrush	ARTRW	---	25-35	---	25-35	---
bud sagebrush	ARSP5	20-30	---	20-30	---	20-30
shadscale	ATCO	30-40	---	30-40	---	30-40
spiny hopsage	GRSP	2-5	5-15	2-5	5-15	2-5
winterfat	EULAS	2-5	---	2-5	---	2-5
Range site number		024XY002NV	024XY020NV	024XY002NV	024XY020NV	024XY002NV
Potential production (lb/acre):						
Favorable years		750	700	750	700	750
Normal years		450	450	450	450	450
Unfavorable years		300	300	300	300	300

669--OXCOREL-DEWAR-SOUGHE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		OXCOREL	DEWAR	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	2-8	2-8	---	---	---
Thurber needlegrass	STTH2	---	15-25	15-25	40-50	40-50	---
basin wildrye	ELCI2	---	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	---	---	---	2-10	2-10	---
bottlebrush squirreltail	SIHY	5-10	2-5	2-5	---	---	---
mat muhly	MURI	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
globemallow	SPHAE	---	1-2	1-2	1-3	1-3	---
Wyoming big sagebrush	ARTRW	---	25-35	25-35	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
bud sagebrush	ARSP5	20-30	---	---	---	---	---
shadscale	ATCO	30-40	---	---	---	---	---
spiny hopsage	GRSP	2-5	5-15	5-15	2-5	2-5	---
winterfat	EULA5	2-5	---	---	---	---	---

Range site number	024XY002NV	024XY020NV	024XY020NV	024XY005NV	024XY005NV	025XY003NV
Potential production (lb/acre):						
Favorable years	750	700	700	800	800	4500
Normal years	450	450	450	600	600	3500
Unfavorable years	300	300	300	400	400	2000

670--DEVADA-GOOSEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DEVADA	DEVADA	GOOSEL	Inclusion 1	Inclusion 2
Sandberg bluegrass	POSE	2-8	2-10	2-5	2-10	---
Thurber needlegrass	STTH2	15-30	10-20	15-25	10-20	---
Webber ricegrass	STWE	2-8	5-10	---	5-10	---
bluebunch wheatgrass	AGSP	20-40	20-30	25-40	20-30	---
balsamroot	BALSA	---	2-5	---	2-5	---
Wyoming big sagebrush	ARTRW	---	---	15-25	---	---
early sagebrush	ARLO9	---	---	---	---	---
low sagebrush	ARAR8	---	25-35	---	25-35	---
sagebrush	ARTEM	20-30	---	---	---	---
Range site number		025XY018NV	025XY022NV	025XY019NV	025XY022NV	none
Potential production (lb/acre):						
Favorable years		800	600	800	600	
Normal years		600	400	600	400	
Unfavorable years		400	250	400	250	

671--DEVADA-BURRITA-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		DEVADA	BURRITA	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Idaho fescue	FEID	---	---	---	30-50	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-8	2-5	---	---	---	---
Thurber needlegrass	STTH2	15-30	15-25	---	---	10-20	---
Webber ricegrass	STWE	2-8	---	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	5-10
basin wildrye	ELCI2	---	---	---	---	2-8	---
bluebunch wheatgrass	AGSP	20-40	25-40	---	15-30	20-35	---
bluegrass	POA++	---	---	---	2-10	2-10	---
sedge	CAREX	---	---	---	---	---	5-10
tufted hairgrass	DECE	---	---	---	---	---	30-60
Sierra clover	TRWO	---	---	---	---	---	2-5
cinquefoil	POTEN	---	---	---	---	---	2-5
Wyoming big sagebrush	ARTRW	---	15-25	---	---	---	---
antelope bitterbrush	PUTR2	---	---	---	2-5	2-8	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-15	---
early sagebrush	ARLO9	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	15-25	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
sagebrush	ARTEM	20-30	---	---	---	---	---
Range site number		025XY018NV	025XY019NV	none	025XY017NV	025XY014NV	025XY005NV
Potential production (lb/acre):							
Favorable years		800	800		900	1000	3000
Normal years		600	600		700	800	1700
Unfavorable years		400	400		400	600	1000

673--DEVADA ASSOCIATION

(Absence of an entry indicates that the named plant is not a key species in the potential native plant community)

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		DEVADA	DEVADA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	---	---	30-40	---	---	---
Nevada bluegrass	PONE3	---	---	2-5	---	---	---
Sandberg bluegrass	POSE	2-8	2-10	---	2-5	2-5	---
Thurber needlegrass	STTH2	15-30	10-20	---	15-25	15-25	---
Webber ricegrass	STWE	2-8	5-10	---	---	---	---
basin wildrye	ELCI2	---	---	2-10	---	---	---
bluebunch wheatgrass	AGSP	20-40	20-30	15-30	25-40	25-40	---
arrowleaf balsamroot	BASA3	---	---	2-5	---	---	---
balsamroot	BALSA	---	2-5	---	---	---	---
tapertip hawksbeard	CRAC2	---	---	2-5	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	15-25	15-25	---
antelope bitterbrush	PUTR2	---	---	5-10	---	---	---
early sagebrush	ARLO9	---	---	---	---	---	---
low sagebrush	ARAR8	---	25-35	---	---	---	---
mountain big sagebrush	ARVA2	---	---	10-20	---	---	---
sagebrush	ARTEM	20-30	---	---	---	---	---
Range site number		025XY018NV	025XY022NV	025XY012NV	025XY019NV	025XY019NV	none
Potential production (lb/acre):							
Favorable years		800	600	1400	800	800	
Normal years		600	400	1000	600	600	
Unfavorable years		400	250	700	400	400	

676--DEVADA-SNOWMORE-MIDRAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		DEVADA	SNOWMORE	MIDRAW	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	2-8	---	---	---	2-10	---	---
Thurber needlegrass	STTH2	15-30	40-50	40-50	40-50	10-20	5-15	---
Webber ricegrass	STWE	2-8	---	---	---	5-10	---	---
basin wildrye	ELCI2	---	---	---	---	---	2-5	---
bluebunch wheatgrass	AGSP	20-40	2-10	2-10	2-10	20-30	40-60	---
bluegrass	POA++	---	---	---	---	---	2-8	---
arrowleaf balsamroot	BASA3	---	---	---	---	---	2-5	---
balsamroot	BALSA	---	---	---	---	2-5	---	---
globemallow	SPHAE	---	1-3	1-3	1-3	---	---	---
tapertip hawksbeard	CRAC2	---	---	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	---	25-35	25-35	25-35	---	---	---
big sagebrush	ARTR2	---	---	---	---	---	15-25	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	25-35	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
sagebrush	ARTEM	20-30	---	---	---	---	---	---
spiny hopsage	GRSP	---	2-5	2-5	2-5	---	---	---
Range site number		025XY018NV	024XY005NV	024XY005NV	024XY005NV	025XY022NV	024XY028NV	none
Potential production (lb/acre):								
Favorable years		800	800	800	800	600	1000	
Normal years		600	600	600	600	400	700	
Unfavorable years		400	400	400	400	250	500	

677--DEVADA-NINEMILE-BURRITA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		DEVADA	NINEMILE	BURRITA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	5-10	2-8	---	2-8	---	---	---
Cusick bluegrass	POCU3	---	---	---	2-8	---	---	---
Idaho fescue	FEID	---	30-40	---	30-40	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	2-5
Sandberg bluegrass	POSE	5-10	2-8	---	---	2-10	---	---
Thurber needlegrass	STTH2	10-20	2-5	10-20	2-8	10-20	10-20	---
Webber ricegrass	STWE	---	---	---	---	5-10	---	---
basin wildrye	ELCI2	---	2-5	2-10	5-15	---	2-10	40-60
bluebunch wheatgrass	AGSP	20-50	20-30	40-60	15-35	20-30	40-60	---
bluegrass	POA++	5-10	2-8	---	2-8	---	---	---
sedge	CAREX	---	---	---	---	---	---	2-5
slender wheatgrass	AGTR	---	---	---	---	---	---	5-15
streambank wheatgrass	AGDAR	---	---	---	---	---	---	5-15
thickspike wheatgrass	AGDA	---	---	---	---	---	---	5-15
wheatgrass	AGROP2	---	---	---	---	---	---	5-15
balsamroot	BALSA	---	---	---	---	2-5	---	---
lupine	LUPIN	---	---	---	---	---	---	2-5
Wyoming big sagebrush	ARTRW*	---	---	10-20	---	---	10-20	---
antelope bitterbrush	PUTR2	---	---	2-5	2-10	---	2-5	---
big sagebrush	ARTR2	---	---	10-20	---	---	10-20	---
low sagebrush	ARAR8	10-20	10-20	---	---	25-35	---	---
mountain big sagebrush	ARVA2	---	---	10-20	10-20	---	10-20	15-25

Range site number	023XY031NV	023XY017NV	023XY039NV	023XY007NV	025XY022NV	023XY039NV	023XY056NV
Potential production (lb/acre):							
Favorable years	900	900	900	1600	600	900	2200
Normal years	700	700	700	1200	400	700	1700
Unfavorable years	500	500	500	900	250	500	1200

678--DEVADA-RUBBLE LAND ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		DEVADA	DEVADA	RUBBLE LAND	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	5-10	---	---	2-5	---	---
Sandberg bluegrass	POSE	5-10	30-45	---	---	---	---
Thurber needlegrass	STTH2	10-20	---	---	15-20	20-30	5-15
Webber ricegrass	STWE	---	2-5	---	---	---	---
basin wildrye	ELCI2	---	---	---	5-10	---	2-5
bluebunch wheatgrass	AGSP	20-50	---	---	30-40	20-35	40-60
bluegrass	POA++	5-10	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	---	---	---	2-5	2-5
tapertip hawksbeard	CRAC2	---	---	---	---	2-5	2-5
Wyoming big sagebrush	ARTRWQ	---	---	---	15-20	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
antelope bitterbrush	PUTR2	---	---	---	2-10	---	---
basin big sagebrush	ARTRTQ	---	---	---	15-20	---	---
big sagebrush	ARTR2	---	---	---	15-20	15- 25	15-25
low sagebrush	ARAR8	10-20	30-45	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	15-20	---	---
rabbitbrush	CHRY9	---	---	---	2-5	---	---
Range site number		023XY031NV	023XY021NV	none	023XY020NV	024XY035NV	024XY028NV
Potential production (lb/acre):							
Favorable years		900	300		1100	500	1000
Normal years		700	200		900	400	700
Unfavorable years		500	150		600	250	500

680--SOUGHE-TRUNK-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SOUGHE	TRUNK	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	---	---	---	5-15	2-5	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-8	---	---	---	2-8	---	---
Thurber needlegrass	STTH2	15-25	40-50	---	40-50	15-25	---	---
basin wildrye	ELCI2	---	---	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	---	2-10	---	2-10	---	---	---
bottlebrush squirreltail	SIHY	2-5	---	---	---	2-5	2-10	---
desert needlegrass	STSP3	---	---	---	---	---	2-10	---
mat muhly	MURI	---	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
globemallow	SPHAE	1-2	1-3	---	1-3	1-2	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
bud sagebrush	ARSP5	---	---	---	---	---	15-30	---
shadscale	ATCO	---	---	---	---	---	30-50	---
spiny hopsage	GRSP	5-15	2-5	---	2-5	5-15	---	---

Range site number	024XY020NV	024XY005NV	none	024XY005NV	024XY020NV	024XY025NV	025XY003NV
Potential production (lb/acre):							
Favorable years	700	800		800	700	250	4500
Normal years	450	600		600	450	150	3500
Unfavorable years	300	400		400	300	75	2000

690--SODHOUSE-GOLCONDA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		SODHOUSE	GOLCONDA	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	5-15	5-15	5-15
Sandberg bluegrass	POSE	---	---	2-8	2-8	---
Thurber needlegrass	STH2	---	---	15-25	15-25	---
bottlebrush squirreltail	SIHY	5-10	5-10	2-5	2-5	5-10
globemallow	SPHA	---	---	1-2	1-2	---
Wyoming big sagebrush	ARTRW	---	---	25-35	25-35	---
bud sagebrush	ARSP5	20-30	20-30	---	---	20-30
shadscale	ATCO	30-40	30-40	---	---	30-40
spiny hopsage	GRSP	2-5	2-5	5-15	5-15	2-5
winterfat	EULAS	2-5	2-5	---	---	2-5
Range site number		024XY002NV	024XY002NV	024XY020NV	024XY020NV	024XY002NV
Potential production (lb/acre):						
Favorable years		750	750	700	700	750
Normal years		450	450	450	450	450
Unfavorable years		300	300	300	300	300

691--SODHOUSE-CHIARA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SODHOUSE	CHIARA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	40-60	---	---	20-30	---	5-15
Sandberg bluegrass	POSE	---	2-5	2-5	---	2-5	---
Thurber needlegrass	STTH2	---	15-25	15-25	---	15-25	---
bluebunch wheatgrass	AGSP	---	25-40	25-40	---	25-40	---
bottlebrush squirreltail	SIHY	2-8	---	---	5-10	---	5-10
desert globemallow	SPAM2	2-5	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	15-25	15-25	---	15-25	---
bud sagebrush	ARSP5	2-8	---	---	---	---	20-30
shadscale	ATCO	---	---	---	---	---	30-40
sickle saltbush	ATFA	---	---	---	50-60	---	---
spiny hopsage	GRSP	---	---	---	---	---	2-5
winterfat	EULA5	20-25	---	---	---	---	2-5

Range site number	024XY059NV	025XY019NV	025XY019NV	024XY012NV	025XY019NV	024XY002NV
Potential production (lb/acre):						
Favorable years	700	800	800	700	800	750
Normal years	500	600	600	400	600	450
Unfavorable years	300	400	400	200	400	300

700--ATLOW-GOWJAI ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		ATLOW	GOWJAI	Inclusion 1	Inclusion 2	Inclusion 3
Idaho fescue	FEID	---	20-40	---	---	---
Indian ricegrass	ORHY	5-15	---	---	---	---
Thurber needlegrass	STTH2	15-30	2-8	40-50	40-50	40-50
basin wildrye	ELCI2	---	2-15	---	---	---
bluebunch wheatgrass	AGSP	---	20-40	2-10	2-10	2-10
arrowleaf balsamroot	BASA3	---	1-5	---	---	---
globemallow	SPHAE	2-5	---	1-3	1-3	1-3
helianthella	HELIA	---	1-2	---	---	---
tapertip hawksbeard	CRAC2	---	1-5	---	---	---
white stoneseed	LIRU4	---	1-2	---	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35	25-35	25-35
black sagebrush	ARARN	25-35	---	---	---	---
mountain big sagebrush	ARVA2	---	15-25	---	---	---
spiny hopsage	GRSP	---	---	2-5	2-5	2-5
Range site number		024XY030NV	024XY021NV	024XY005NV	024XY005NV	024XY005NV
Potential production (lb/acre):						
Favorable years		500	1400	800	800	800
Normal years		350	1000	600	600	600
Unfavorable years		250	700	400	400	400

701--ATLOW-WISKAN ASSOCIATION

(An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable.
Absence of an entry indicates that the named plant is not a key species in the potential native plant community)

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ATLOW	WISKAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	5-15	---
Idaho fescue	FEID	---	---	---	---	30-60	---
Indian ricegrass	ORHY	5-15	2-5	X	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Thurber needlegrass	STTH2	15-30	10-20	X	10-20	---	---
basin wildrye	ELCI2	---	---	---	2-8	---	60-70
bluebunch wheatgrass	AGSP	---	20-35	X	20-35	2-10	---
bluegrass	POA++	---	---	X	2-10	---	---
mat muhly	MURI	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
globemallow	SPHAE	2-5	---	---	---	---	---
goldenweed	HAPLO2	---	---	X	---	---	---
phlox	PHLOX	---	---	X	---	---	---
tapertip hawksbeard	CRAC2	---	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
antelope bitterbrush	PUTR2	---	---	---	2-8	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	---	10-15	---	---
black sagebrush	ARARN	25-35	25-35	X	---	25-35	---
downy rabbitbrush	CHVIP4	---	---	X	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
Utah juniper	JUOS	---	---	X	---	---	---

Range site number	024XY030NV	024XY031NV	025XY060NV	025XY014NV	024XY042NV	025XY003NV
Potential production (lb/acre):						
Favorable years	500	700	400	1000	1000	4500
Normal years	350	500	275	800	800	3500
Unfavorable years	250	300	150	600	500	2000

704--ATLOW-HOOT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ATLOW	HOOT	ATLOW	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Indian ricegrass	ORHY	5-15	2-5	5-15	5-15	---	5-15	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	2-8	---	---	---
Thurber needlegrass	STH2	15-30	---	15-30	15-25	---	---	10-20
basin wildrye	ELCI2	---	---	---	---	---	---	2-8
bluebunch wheatgrass	AGSP	---	---	---	---	---	---	20-35
bluegrass	POA++	---	---	---	---	---	---	2-10
bottlebrush squirreltail	SIHY	---	2-10	---	2-5	---	5-10	---
desert needlegrass	STSP3	---	2-10	---	---	---	---	---
globemallow	SPHAE	2-5	---	2-5	1-2	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	---	---	---
antelope bitterbrush	PUTR2	---	---	---	---	---	---	2-8
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	---	---	10-15
black sagebrush	ARARN	25-35	---	25-35	---	---	---	---
bud sagebrush	ARSP5	---	15-30	---	---	---	20-30	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
shadscale	ATCO	---	30-50	---	---	---	30-40	---
spiny hopsage	GRSP	---	---	---	5-15	---	2-5	---
winterfat	EULA5	---	---	---	---	---	2-5	---

Range site number	024XY030NV	024XY025NV	024XY030NV	024XY020NV	none	024XY002NV	025XY014NV
Potential production (lb/acre):							
Favorable years	500	250	500	700		750	1000
Normal years	350	150	350	450		450	800
Unfavorable years	250	75	250	300		300	600

710--XIPE SILT LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		XIPE	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-10	5-15	5-10
basin wildrye	ELCI2	60-70	---	60-70
creeping wildrye	ELTR3	---	---	---
inland saltgrass	DISPS2	---	2-5	---
mat muhly	MURI	2-8	2-5	2-8
sedge	CAREX	---	2-10	---
streambank wheatgrass	AGDAR	2-8	---	2-8
wildrye	ELYMU	---	60-80	---
basin big sagebrush	ARTRT	5-10	---	5-10
willow	SALIX	---	5-10	---
Range site number		025XY003NV	025XY001NV	025XY003NV
Potential production (lb/acre):				
Favorable years		4500	3500	4500
Normal years		3500	2500	3500
Unfavorable years		2000	1800	2000

720--DEWAR-SODHOUSE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		DEWAR	SODHOUSE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	40-60	20-30	---	---	---
Sandberg bluegrass	POSE	2-8	---	---	2-5	2-5	---
Thurber needlegrass	STTH2	15-25	---	---	15-25	15-25	---
bluebunch wheatgrass	AGSP	---	---	---	25-40	25-40	---
bottlebrush squirreltail	SIHY	2-5	2-8	5-10	---	---	---
desert globemallow	SPAM2	---	2-5	---	---	---	---
globemallow	SPHAE	1-2	---	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	---	---	15-25	15-25	---
bud sagebrush	ARSP5	---	2-8	---	---	---	---
sickle saltbush	ATPA	---	---	50-60	---	---	---
spiny hopsage	GRSP	5-15	---	---	---	---	---
winterfat	EULA5	---	20-25	---	---	---	---
Range site number		024XY020NV	024XY059NV	024XY012NV	025XY019NV	025XY019NV	none
Potential production (lb/acre):							
Favorable years		700	700	700	800	800	
Normal years		450	500	400	600	600	
Unfavorable years		300	300	200	400	400	

721--DEWAR-LAPED-OROVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		DEWAR	LAPED	OROVADA	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	5-15	5-15	---	---	5-15
Sandberg bluegrass	POSE	---	---	2-8	---	---	2-8
Thurber needlegrass	STTH2	40-50	---	15-25	40-50	40-50	15-25
bluebunch wheatgrass	AGSP	2-10	---	---	2-10	2-10	---
bottlebrush squirreltail	SIHY	---	5-10	2-5	---	---	2-5
globemallow	SPHAE	1-3	---	1-2	1-3	1-3	1-2
Wyoming big sagebrush	ARTRW	25-35	---	25-35	25-35	25-35	25-35
bud sagebrush	ARSP5	---	20-30	---	---	---	---
shadscale	ATCO	---	30-40	---	---	---	---
spiny hopsage	GRSP	2-5	2-5	5-15	2-5	2-5	5-15
winterfat	EULA5	---	2-5	---	---	---	---

Range site number	024XY005NV	024XY002NV	024XY020NV	024XY005NV	024XY005NV	024XY020NV
Potential production (lb/acre):						
Favorable years	800	750	700	800	800	700
Normal years	600	450	450	600	600	450
Unfavorable years	400	300	300	400	400	300

722--DEWAR-FLUE-BURRITA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		DEWAR	FLUE	BURRITA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	2-5	---	---	---	2-5	---	---
Thurber needlegrass	STTH2	15-25	40-50	40-50	5-15	15-25	---	---
basin wildrye	ELCI2	---	---	---	2-5	---	55-65	---
bluebunch wheatgrass	AGSP	25-40	2-10	2-10	40-60	25-40	---	---
bluegrass	POA++	---	---	---	2-8	---	---	---
creeping wildrye	ELTR3	---	---	---	---	---	5-15	---
western wheatgrass	AGSM	---	---	---	---	---	5-15	---
arrowleaf balsamroot	BASA3	---	---	---	2-5	---	---	---
globemallow	SPHAE	---	1-3	1-3	---	---	---	---
tapertip hawksbeard	CRAC2	---	---	---	2-5	---	---	---
Wyoming big sagebrush	ARTRW	15-25	25-35	25-35	---	15-25	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	10-15	---
big sagebrush	ARTR2	---	---	---	15-25	---	---	---
black greasewood	SAVE4	---	---	---	---	---	2-8	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
spiny hopsage	GRSP	---	2-5	2-5	---	---	---	---

Range site number	025XY019NV	024XY005NV	024XY005NV	024XY028NV	025XY019NV	024XY006NV	none
Potential production (lb/acre):							
Favorable years	800	800	800	1000	800	1500	
Normal years	600	600	600	700	600	1100	
Unfavorable years	400	400	400	500	400	600	

724--DEWAR-SOUGHE-HOOT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		DEWAR	SOUGHE	HOOT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	2-5	---	---	25-35	5-15
Sandberg bluegrass	POSE	2-8	2-8	---	---	---	---	---
Thurber needlegrass	STTH2	15-25	15-25	---	40-50	---	5-10	---
bluebunch wheatgrass	AGSP	---	---	---	2-10	---	---	---
bottlebrush squirreltail	SIHY	2-5	2-5	2-10	---	---	---	5-10
desert needlegrass	STSP3	---	---	2-10	---	---	---	---
globemallow	SPHA8	1-2	1-2	---	1-3	---	2-4	---
Douglas rabbitbrush	CHVI8	---	---	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35	---	25-35	---
bud sagebrush	ARSP5	---	---	15-30	---	---	---	20-30
shadscale	ATCO	---	---	30-50	---	---	2-5	30-40
spiny hopsage	GRSP	5-15	5-15	---	2-5	---	2-5	2-5
winterfat	EULA5	---	---	---	---	---	---	2-5

Range site number	024XY020NV	024XY020NV	024XY025NV	024XY005NV	none	024XY045NV	024XY002NV
Potential production (lb/acre):							
Favorable years	700	700	250	800		350	750
Normal years	450	450	150	600		200	450
Unfavorable years	300	300	75	400		100	300

726--DEWAR ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DEWAR	DEWAR	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	---	5-15	5-15	---
Sandberg bluegrass	POSE	2-8	---	---	2-8	---
Thurber needlegrass	STTH2	15-25	40-50	---	15-25	40-50
bluebunch wheatgrass	AGSP	---	2-10	---	---	2-10
bottlebrush squirreltail	SIHY	2-5	---	5-10	2-5	---
globemallow	SPHAE	1-2	1-3	---	1-2	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35	25-35
bud sagebrush	ARSP5	---	---	20-30	---	---
shadscale	ATCO	---	---	30-40	---	---
spiny hopsage	GRSP	5-15	2-5	2-5	5-15	2-5
winterfat	EULA5	---	---	2-5	---	---

Range site number	024XY020NV	024XY005NV	024XY002NV	024XY020NV	024XY005NV
Potential production (lb/acre):					
Favorable years	700	800	750	700	800
Normal years	450	600	450	450	600
Unfavorable years	300	400	300	300	400

727--DEWAR-MIDRAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DEWAR	MIDRAW	DEWAR	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	---	---	5-15
Sandberg bluegrass	POSE	2-8	2-8	---	---	---
Thurber needlegrass	STTH2	15-25	15-25	40-50	40-50	---
bluebunch wheatgrass	AGSP	---	---	2-10	2-10	---
bottlebrush squirreltail	SIHY	2-5	2-5	---	---	5-10
globemallow	SPHAE	1-2	1-2	1-3	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	---
bud sagebrush	ARSP5	---	---	---	---	20-30
shadscale	ATCO	---	---	---	---	30-40
spiny hopsage	GRSP	5-15	5-15	2-5	2-5	2-5
winterfat	EULAS	---	---	---	---	2-5

Range site number	024XY020NV	024XY020NV	024XY005NV	024XY005NV	024XY002NV
Potential production (lb/acre):					
Favorable years	700	700	800	800	750
Normal years	450	450	600	600	450
Unfavorable years	300	300	400	400	300

728--DEWAR-MIDRAW-DEVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		DEWAR	MIDRAW	DEVADA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	---	---	---	---	5-15
Nevada bluegrass	PONE3	---	---	---	---	5-10	---	---
Sandberg bluegrass	POSE	2-8	2-8	2-8	---	---	2-10	---
Thurber needlegrass	STTH2	15-25	15-25	15-30	40-50	---	10-20	---
Webber ricegrass	STWE	---	---	2-8	---	---	5-10	---
basin wildrye	ELCI2	---	---	---	---	60-70	---	---
bluebunch wheatgrass	AGSP	---	---	20-40	2-10	---	20-30	---
bottlebrush squirreltail	SIHY	2-5	2-5	---	---	---	---	5-10
mat muhly	MURI	---	---	---	---	2-8	---	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---	---
balsamroot	BALSA	---	---	---	---	---	2-5	---
globemallow	SPHAE	1-2	1-2	---	1-3	---	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	5-10	---	---
bud sagebrush	ARSP5	---	---	---	---	---	---	20-30
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	25-35	---
sagebrush	ARTEM	---	---	20-30	---	---	---	---
shadscale	ATCO	---	---	---	---	---	---	30-40
spiny hopsage	GRSP	5-15	5-15	---	2-5	---	---	2-5
winterfat	EULA5	---	---	---	---	---	---	2-5

Range site number	024XY020NV	024XY020NV	025XY018NV	024XY005NV	025XY003NV	025XY022NV	024XY002NV
Potential production (lb/acre):							
Favorable years	700	700	800	800	4500	600	750
Normal years	450	450	600	600	3500	400	450
Unfavorable years	300	300	400	400	2000	250	300

729--DEWAR-BOGER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		DEWAR	BOGER	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	5-15	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10	---
Sandberg bluegrass	POSE	2-8	2-8	---	2-10	---	---
Thurber needlegrass	STTH2	15-25	15-25	---	10-20	---	40-50
Webber ricegrass	STWE	---	---	---	5-10	---	---
basin wildrye	ELCI2	---	---	---	---	60-70	---
bluebunch wheatgrass	AGSP	---	---	---	20-30	---	2-10
bottlebrush squirreltail	SIHY	2-5	2-5	5-10	---	---	---
mat muhly	MURI	---	---	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---
balsamroot	BALSA	---	---	---	2-5	---	---
globemallow	SPHAE	1-2	1-2	---	---	---	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---	---	25-35
basin big sagebrush	ARTRT	---	---	---	---	5-10	---
bud sagebrush	ARSP5	---	---	20-30	---	---	---
low sagebrush	ARAR8	---	---	---	25-35	---	---
shadscale	ATCO	---	---	30-40	---	---	---
spiny hopsage	GRSP	5-15	5-15	2-5	---	---	2-5
winterfat	EULA5	---	---	2-5	---	---	---

Range site number	024XY020NV	024XY020NV	024XY002NV	025XY022NV	025XY003NV	024XY005NV
Potential production (lb/acre):						
Favorable years	700	700	750	600	4500	800
Normal years	450	450	450	400	3500	600
Unfavorable years	300	300	300	250	2000	400

732--KELK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		KELK	KELK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	2-5	---	---	---	5-15
Sandberg bluegrass	POSE	---	---	---	---	2-8
Thurber needlegrass	STTH2	---	---	---	---	15-25
basin wildrye	ELCI2	5-20	55-65	---	55-65	---
bottlebrush squirreltail	SIHY	2-5	---	5-10	---	2-5
creeping wildrye	ELTR3	---	5-15	---	5-15	---
western wheatgrass	AGSM	---	5-15	---	5-15	---
globemallow	SPHAE	1-2	---	---	---	1-2
thelypody	THELY	2-4	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	25-35
basin big sagebrush	ARTRT	---	10-15	---	10-15	---
big sagebrush	ARTR2	10-25	---	---	---	---
black greasewood	SAVE4	20-30	2-8	15-30	2-8	---
bud sagebrush	ARSP5	---	---	2-8	---	---
seepweed	SUAED	---	---	2-8	---	---
shadscale	ATCO	---	---	30-50	---	---
spiny hopsage	GRSP	5-15	---	---	---	5-15

Range site number	024XY022NV	024XY006NV	024XY003NV	024XY006NV	024XY020NV
Potential production (lb/acre):					
Favorable years	800	1500	600	1500	700
Normal years	600	1100	450	1100	450
Unfavorable years	350	600	300	600	300

733--KELK-ENKO COMPLEX, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		KELK	ENKO	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	15-30	30-40	---
Thurber needlegrass	STTH2	---	---	---	40-50
basin wildrye	ELCI2	55-65	5-10	2-8	---
bluebunch wheatgrass	AGSP	---	---	---	2-10
creeping wildrye	ELTR3	5-15	---	---	---
needleandthread	STCO4	---	30-40	5-15	---
thickspike wheatgrass	AGDA	---	---	5-10	---
western wheatgrass	AGSM	5-15	---	---	---
canaigre	RUHY	---	---	1-3	---
globemallow	SPHAE	---	---	---	1-3
lemon scurfpea	PSLA	---	---	1-3	---
tufted eveningprimrose	OECE2	---	---	1-3	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35
basin big sagebrush	ARTRT	10-15	---	25-30	---
big sagebrush	ARTR2	---	15-25	---	---
black greasewood	SAVE4	2-8	---	---	---
fourwing saltbush	ATCA2	---	---	2-8	---
spiny hopsage	GRSP	---	1-5	2-8	2-5
Range site number		024XY006NV	024XY017NV	024XY001NV	024XY005NV
Potential production (lb/acre):					
Favorable years		1500	900	800	800
Normal years		1100	700	500	600
Unfavorable years		600	500	300	400

734--KELK SILT LOAM, OCCASIONALLY FLOODED, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		KELK	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	---	15-30
Thurber needlegrass	STTH2	---	40-50	---
basin wildrye	ELCI2	55-65	---	5-10
bluebunch wheatgrass	AGSP	---	2-10	---
creeping wildrye	ELTR3	5-15	---	---
needleandthread	STCO4	---	---	30-40
western wheatgrass	AGSM	5-15	---	---
globemallow	SPRAE	---	1-3	---
Wyoming big sagebrush	ARTRW	---	25-35	---
basin big sagebrush	ARTRT	10-15	---	---
big sagebrush	ARTR2	---	---	15-25
black greasewood	SAVE4	2-8	---	---
spiny hopsage	GRSP	---	2-5	1-5
Range site number		024XY006NV	024XY005NV	024XY017NV
Potential production (lb/acre):				
Favorable years		1500	800	900
Normal years		1100	600	700
Unfavorable years		600	400	500

736--KELK-KORTTY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		KELK	KORTTY	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	5-15	---	---	5-15
Sandberg bluegrass	POSE	2-5	---	2-5	2-5	---
Thurber needlegrass	STTH2	15-25	---	15-25	15-25	---
bluebunch wheatgrass	AGSP	25-40	---	25-40	25-40	---
bottlebrush squirreltail	SIHY	---	5-10	---	---	5-10
Wyoming big sagebrush	ARTRW	15-25	---	15-25	15-25	---
bud sagebrush	ARSP5	---	20-30	---	---	20-30
shadscale	ATCO	---	30-40	---	---	30-40
spiny hopsage	GRSP	---	2-5	---	---	2-5
winterfat	EULA5	---	2-5	---	---	2-5

Range site number	025XY019NV	024XY002NV	025XY019NV	025XY019NV	024XY002NV
Potential production (lb/acre):					
Favorable years	800	750	800	800	750
Normal years	600	450	600	600	450
Unfavorable years	400	300	400	400	300

740--GOWJAI-VANWYPER-SUMINE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		GOWJAI	VANWYPER	SUMINE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Indian ricegrass	ORHY	---	---	---	---	---	---	5-15
Nevada bluegrass	PONE3	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	2-5	---
Thurber needlegrass	STTH2	10-20	5-15	2-5	20-30	---	15-25	15-30
basin wildrye	ELC12	2-8	2-5	5-10	---	---	---	---
bluebunch wheatgrass	AGSP	20-35	40-60	30-50	20-35	---	25-40	---
bluegrass	POA++	2-10	2-8	---	---	---	---	---
mountain brome	BRCA5	---	---	2-15	---	---	---	---
arrowleaf balsamroot	BASA3	---	2-5	2-5	2-5	---	---	---
globemallow	SPHA3	---	---	---	---	---	---	2-5
lupine	LUPIN	---	---	2-5	---	---	---	---
tapertip hawksbeard	CRAC2	---	2-5	2-5	2-5	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	15-25	---
antelope bitterbrush	PUTR2	2-8	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	10-15	15-25	---	15-25	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	25-35
mountain big sagebrush	ARVA2	---	---	10-20	---	---	---	---

Range site number	025XY014NV	024XY028NV	024XY029NV	024XY035NV	none	025XY019NV	024XY030NV
Potential production (lb/acre):							
Favorable years	1000	1000	1500	500		800	500
Normal years	800	700	1100	400		600	350
Unfavorable years	600	500	800	250		400	250

750--SNAPP-OXCOREL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		SNAPP	OXCOREL	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	5-15	5-15	---
Sandberg bluegrass	POSE	---	---	2-8	---
Thurber needlegrass	STH2	40-50	---	15-25	---
basin wildrye	ELCI2	---	---	---	55-65
bluebunch wheatgrass	AGSP	2-10	---	---	---
bottlebrush squirreltail	SIHY	---	5-10	2-5	---
creeping wildrye	ELTR3	---	---	---	5-15
western wheatgrass	AGSM	---	---	---	5-15
globemallow	SPHAE	1-3	---	1-2	---
Wyoming big sagebrush	ARTRW	25-35	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	10-15
black greasewood	SAVE4	---	---	---	2-8
bud sagebrush	ARSP5	---	20-30	---	---
shadscale	ATCO	---	30-40	---	---
spiny hopsage	GRSP	2-5	2-5	5-15	---
winterfat	EULA5	---	2-5	---	---
Range site number		024XY005NV	024XY002NV	024XY020NV	024XY006NV
Potential production (lb/acre):					
Favorable years		800	750	700	1500
Normal years		600	450	450	1100
Unfavorable years		400	300	300	600

751--SNAPP-SODHOUSE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		SNAPP	SODHOUSE	Inclusion 1
Indian ricegrass	ORHY	---	5-15	5-15
Sandberg bluegrass	POSE	---	---	2-8
Thurber needlegrass	STH2	40-50	---	15-25
bluebunch wheatgrass	AGSP	2-10	---	---
bottlebrush squirreltail	SIHY	---	5-10	2-5
globemallow	SPHAE	1-3	---	1-2
Wyoming big sagebrush	ARTRW	25-35	---	25-35
bud sagebrush	ARSP5	---	20-30	---
shadscale	ATCO	---	30-40	---
spiny hopsage	GRSP	2-5	2-5	5-15
winterfat	EULA5	---	2-5	---
Range site number		024XY005NV	024XY002NV	024XY020NV
Potential production (lb/acre):				
Favorable years		800	750	700
Normal years		600	450	450
Unfavorable years		400	300	300

752--SNAPP-OROVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		SNAPP	OROVADA	Inclusion 1
Indian ricegrass	ORHY	---	5-15	---
Sandberg bluegrass	POSE	---	2-8	---
Thurber needlegrass	STTH2	40-50	15-25	---
basin wildrye	ELCI2	---	---	55-65
bluebunch wheatgrass	AGSP	2-10	---	---
bottlebrush squirreltail	SIHY	---	2-5	---
creeping wildrye	ELTR3	---	---	5-15
western wheatgrass	AGSM	---	---	5-15
globemallow	SPHAE	1-3	1-2	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	10-15
black greasewood	SAVE4	---	---	2-8
spiny hopsage	GRSP	2-5	5-15	---

Range site number	024XY005NV	024XY020NV	024XY006NV
Potential production (lb/acre):			
Favorable years	800	700	1500
Normal years	600	450	1100
Unfavorable years	400	300	600

753--SNAPP-DUGCHIP-CONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SNAPP	DUGCHIP	CONNEL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	---	---	5-15	5-15	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-8	---	---	---	2-8	---
Thurber needlegrass	STTH2	15-25	40-50	40-50	---	15-25	---
basin wildrye	ELCI2	---	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	---	2-10	2-10	---	---	---
bottlebrush squirreltail	SIHY	2-5	---	---	5-10	2-5	---
mat muhly	MURI	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
globemallow	SPHAE	1-2	1-3	1-3	---	1-2	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
bud sagebrush	ARSP5	---	---	---	20-30	---	---
shadscale	ATCO	---	---	---	30-40	---	---
spiny hopsage	GRSP	5-15	2-5	2-5	2-5	5-15	---
winterfat	EULA5	---	---	---	2-5	---	---

Range site number	024XY020NV	024XY005NV	024XY005NV	024XY002NV	024XY020NV	025XY003NV
Potential production (lb/acre):						
Favorable years	700	800	800	750	700	4500
Normal years	450	600	600	450	450	3500
Unfavorable years	300	400	400	300	300	2000

754--SNAPP-PUETT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SNAPP	PUETT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	25-35	5-15	5-15	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10	---
Sandberg bluegrass	POSE	---	---	2-8	2-8	---	2-5
Thurber needlegrass	STTH2	40-50	5-10	15-25	15-25	---	15-25
basin wildrye	ELCI2	---	---	---	---	60-70	---
bluebunch wheatgrass	AGSP	2-10	---	---	---	---	25-40
bottlebrush squirreltail	SIHY	---	---	2-5	2-5	---	---
mat muhly	MURI	---	---	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---
globemallow	SPHAE	1-3	2-4	1-2	1-2	---	---
Douglas rabbitbrush	CHVI8	---	2-5	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	---	15-25
basin big sagebrush	ARTRT	---	---	---	---	5-10	---
shadescale	ATCO	---	2-5	---	---	---	---
spiny hopsage	GRSP	2-5	2-5	5-15	5-15	---	---

Range site number	024XY005NV	024XY045NV	024XY020NV	024XY020NV	025XY003NV	025XY019NV
Potential production (lb/acre):						
Favorable years	800	350	700	700	4500	800
Normal years	600	200	450	450	3500	600
Unfavorable years	400	100	300	300	2000	400

755--SNAPP-CONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		SNAPP	CONNEL	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	---	---	5-15
Sandberg bluegrass	POSE	2-8	---	---	2-8
Thurber needlegrass	STTH2	15-25	40-50	40-50	15-25
bluebunch wheatgrass	AGSP	---	2-10	2-10	---
bottlebrush squirreltail	SIHY	2-5	---	---	2-5
globemallow	SPHAE	1-2	1-3	1-3	1-2
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	5-15	2-5	2-5	5-15
Range site number		024XY020NV	024XY005NV	024XY005NV	024XY020NV
Potential production (lb/acre):					
Favorable years		700	800	800	700
Normal years		450	600	600	450
Unfavorable years		300	400	400	300

756--SNAPP-MCCONNEL-ADELAIDE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SNAPP	MCCONNEL	ADELAIDE	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Indian ricegrass	ORHY	---	---	5-15	---	---	---
Sandberg bluegrass	POSE	---	---	2-8	---	---	---
Thurber needlegrass	STTH2	40-50	40-50	15-25	20-30	20-30	40-50
basin wildrye	ELCI2	---	---	---	2-5	2-5	---
bluebunch wheatgrass	AGSP	2-10	2-10	---	30-40	30-40	2-10
bluegrass	POA++	---	---	---	2-8	2-8	---
bottlebrush squirreltail	SIHY	---	---	2-5	---	---	---
globemallow	SPHAE	1-3	1-3	1-2	---	---	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	---	25-35
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	10-15	10-15	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
spiny hopsage	GRSP	2-5	2-5	5-15	---	---	2-5

Range site number	024XY005NV	024XY005NV	024XY020NV	024XY013NV	024XY013NV	024XY005NV
Potential production (lb/acre):						
Favorable years	800	800	700	1000	1000	800
Normal years	600	600	450	800	800	600
Unfavorable years	400	400	300	600	600	400

760--PILINE COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		PILINE	PILINE	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	---	15-25	5-15	---
Sandberg bluegrass	POSE	---	---	---	2-5
Thurber needlegrass	STTH2	---	---	---	15-25
bluebunch wheatgrass	AGSP	---	---	---	25-40
creeping wildrye	ELTR3	70-90	---	---	---
mat muhly	MURI	---	50-70	20-30	---
povertyweed	IVAX	---	2-5	2-5	---
Wyoming big sagebrush	ARTRW	---	---	---	15-25
basin big sagebrush	ARTRT	1-3	---	---	---
mountain silver sagebrush	ARCAV	---	2-5	50-65	---
Range site number		025XY069NV	025XY049NV	025XY048NV	025XY019NV
Potential production (lb/acre):					
Favorable years		1800	450	350	800
Normal years		1400	325	250	600
Unfavorable years		1000	250	150	400

761--PILINE SILTY CLAY

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		PILINE	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-15	5-10	---
Sandberg bluegrass	POSE	---	---	2-5
Thurber needlegress	STH2	---	---	15-25
basin wildrye	ELCI2	---	60-70	---
bluebunch wheatgrass	AGSP	---	---	25-40
mat muhly	MURI	20-30	2-8	---
streambank wheatgrass	AGDAR	---	2-8	---
povertyweed	IVAX	2-5	---	---
Wyoming big sagebrush	ARTRW	---	---	15-25
basin big sagebrush	ARTRT	---	5-10	---
mountain silver sagebrush	ARCAV	50-65	---	---

Range site number	025XY048NV	025XY003NV	025XY019NV
Potential production (lb/acre):			
Favorable years	350	4500	800
Normal years	250	3500	600
Unfavorable years	150	2000	400

772--BROYLES-OROVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BROYLES	OROVADA	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	---	---
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STTH2	---	15-25	40-50	---
bluebunch wheatgrass	AGSP	---	---	2-10	---
bottlebrush squirreltail	SIHY	5-10	2-5	---	5-10
globemallow	SPHAE	---	1-2	1-3	---
Wyoming big sagebrush	ARTRW	---	25-35	25-35	---
black greasewood	SAVE4	---	---	---	15-30
bud sagebrush	ARSP5	20-30	---	---	2-8
seepweed	SUAED	---	---	---	2-8
shadscale	ATCO	30-40	---	---	30-50
spiny hopsage	GRSP	2-5	5-15	2-5	---
winterfat	EULA5	2-5	---	---	---

Range site number	024XY002NV	024XY020NV	024XY005NV	024XY003NV
Potential production (lb/acre):				
Favorable years	750	700	800	600
Normal years	450	450	600	450
Unfavorable years	300	300	400	300

773--BROYLES VERY FINE SANDY LOAM, MODERATELY SALINE, 0 TO 2 PERCENT

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BROYLES	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	5-15	2-5	---
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STH2	---	15-25	---	---
basin wildrye	ELCI2	---	---	5-20	5-15
bottlebrush squirreltail	SIRY	5-10	2-5	2-5	---
inland saltgrass	DISPS2	---	---	---	5-10
globemallow	SPHAE	---	1-2	1-2	---
thelypody	THELY	---	---	2-4	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	---	10-25	---
black greasewood	SAVE4	15-30	---	20-30	60-75
bud sagebrush	ARSP5	2-8	---	---	---
seepweed	SUAED	2-8	---	---	---
shadscale	ATCO	30-50	---	---	---
spiny hopsage	GRSP	---	5-15	5-15	---
Range site number		024XY003NV	024XY020NV	024XY022NV	024XY011NV
Potential production (lb/acre):					
Favorable years		600	700	800	500
Normal years		450	450	600	350
Unfavorable years		300	300	350	200

774--BROYLES VERY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		BROYLES	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	---
bottlebrush squirreltail	SIHY	5-10	5-10	5-10
black greasewood	SAVE4	---	---	15-30
bud sagebrush	ARSP5	20-30	20-30	2-8
seepweed	SUAED	---	---	2-8
shadscale	ATCO	30-40	30-40	30-50
spiny hopsage	GRSP	2-5	2-5	---
winterfat	EULA5	2-5	2-5	---
Range site number		024XY002NV	024XY002NV	024XY003NV
Potential production (lb/acre):				
Favorable years		750	750	600
Normal years		450	450	450
Unfavorable years		300	300	300

775--BROYLES-BUBUS-GOLDRUN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BROYLES	BUBUS	GOLDRUN	Inclusion 1
Indian ricegrass	ORHY	5-15	---	25-35	---
basin wildrye	ELCI2	---	---	2-5	5-15
bottlebrush squirreltail	SIHY	5-10	5-10	---	---
inland saltgrass	DISPS2	---	---	---	5-10
needleandthread	STCO4	---	---	5-10	---
black greasewood	SAVE4	---	15-30	35-45	60-75
bud sagebrush	ARSP5	20-30	2-8	---	---
seepweed	SUAED	---	2-8	---	---
shadscale	ATCO	30-40	30-50	---	---
spiny hopsage	GRSP	2-5	---	5-15	---
winterfat	EULA5	2-5	---	---	---

Range site number	024XY002NV	024XY003NV	024XY066NV	024XY011NV
Potential production (lb/acre):				
Favorable years	750	600	600	500
Normal years	450	450	400	350
Unfavorable years	300	300	250	200

780--DACKER-CHIARA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		DACKER	CHIARA	Inclusion 1	Inclusion 2
Sandberg bluegrass	POSE	2-5	2-5	2-5	2-5
Thurber needlegrass	STTH2	15-25	15-25	15-25	15-25
bluebunch wheatgrass	AGSP	25-40	25-40	25-40	25-40
Wyoming big sagebrush	ARTRW	15-25	15-25	15-25	15-25
Range site number		025XY019NV	025XY019NV	025XY019NV	025XY019NV
Potential production (lb/acre):					
Favorable years		800	800	800	800
Normal years		600	600	600	600
Unfavorable years		400	400	400	400

781--DACKER-BILBO ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DACKER	BILBO	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---
Indian ricegrass	ORHY	---	---	---	---	25-35
Nevada bluegrass	PONE3	---	---	---	5-10	---
Sandberg bluegrass	POSE	2-5	---	---	---	---
Thurber needlegrass	STH2	15-25	5-15	10-20	---	5-10
basin wildrye	ELCI2	---	2-5	2-8	60-70	---
bluebunch wheatgrass	AGSP	25-40	60-80	20-35	---	---
bluegrass	POA++	---	---	2-10	---	---
mat muhly	MURI	---	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---
globemallow	SPHAE	---	---	---	---	2-4
Douglas rabbitbrush	CHVI8	---	---	---	---	2-5
Wyoming big sagebrush	ARTRW	15-25	5-15	---	---	25-35
antelope bitterbrush	PUTR2	---	1-5	2-8	---	---
basin big sagebrush	ARTRT	---	---	---	5-10	---
big sagebrush	ARTR2	---	---	10-15	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---
shadscale	ATCO	---	---	---	---	2-5
spiny hopsage	GRSP	---	---	---	---	2-5

Range site number	025XY019NV	025XY015NV	025XY014NV	025XY003NV	024XY045NV
Potential production (lb/acre):					
Favorable years	800	1000	1000	4500	350
Normal years	600	700	800	3500	200
Unfavorable years	400	500	600	2000	100

782--DACKER-DEVADA-SNOWMORE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		DACKER	DEVADA	SNOWMORE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10	---	---
Sandberg bluegrass	POSE	2-5	2-8	2-5	---	---	---	---
Thurber needlegrass	STTH2	15-25	15-30	15-25	10-20	---	40-50	---
Webber ricegrass	STWE	---	2-8	---	---	---	---	---
basin wildrye	ELCI2	---	---	---	2-8	60-70	---	---
bluebunch wheatgrass	AGSP	25-40	20-40	25-40	20-35	---	2-10	---
bluegrass	POA++	---	---	---	2-10	---	---	---
mat muhly	MURI	---	---	---	---	2-8	---	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---	---
globemallow	SPHAE	---	---	---	---	---	1-3	---
Wyoming big sagebrush	ARTRW	15-25	---	15-25	---	---	25-35	---
antelope bitterbrush	PUTR2	---	---	---	2-8	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	5-10	---	---
big sagebrush	ARTR2	---	---	---	10-15	---	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
sagebrush	ARTEM	---	20-30	---	---	---	---	---
spiny hopsage	GRSP	---	---	---	---	---	2-5	---
Range site number		025XY019NV	025XY018NV	025XY019NV	025XY014NV	025XY003NV	024XY005NV	none
Potential production (lb/acre):								
Favorable years		800	800	800	1000	4500	800	
Normal years		600	600	600	800	3500	600	
Unfavorable years		400	400	400	600	2000	400	

790--RIO KING LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		RIO KING	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	5-10	5-10	5-10	---
alpine timothy	PHAL2	---	---	5-10	---
basin wildrye	ELCI2	60-70	60-70	---	55-65
creeping wildrye	ELTR3	---	---	---	5-15
mat muhly	MURI	2-8	2-8	---	---
sedge	CAREX	---	---	5-10	---
streambank wheatgrass	AGDAR	2-8	2-8	---	---
tufted hairgrass	DECE	---	---	30-60	---
western wheatgrass	AGSM	---	---	---	5-15
Sierra clover	TRWO	---	---	2-5	---
cinquefoil	POTEN	---	---	2-5	---
basin big sagebrush	ARTRT	5-10	5-10	---	10-15
black greasewood	SAVE4	---	---	---	2-8

Range site number	025XY003NV	025XY003NV	025XY005NV	024XY006NV
Potential production (lb/acre):				
Favorable years	4500	4500	3000	1500
Normal years	3500	3500	1700	1100
Unfavorable years	2000	2000	1000	600

791--RIO KING LOAM, SLIGHTLY SALINE

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		RIO KING	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	5-10	---	---
alkali sacaton	SPAI	---	---	---	5-15
basin wildrye	ELCI2	55-65	60-70	5-15	50-60
creeping wildrye	ELTR3	5-15	---	---	---
inland saltgrass	DISPS2	---	---	5-10	2-8
mat muhly	MURI	---	2-8	---	---
streambank wheatgrass	AGDAR	---	2-8	---	---
western wheatgrass	AGSM	5-15	---	---	---
basin big sagebrush	ARTRT	10-15	5-10	---	---
black greasewood	SAVE4	2-8	---	60-75	5-15
rubber rabbitbrush	CHNA2	---	---	---	2-5

Range site number	024XY006NV	025XY003NV	024XY011NV	024XY007NV
Potential production (lb/acre):				
Favorable years	1500	4500	500	1900
Normal years	1100	3500	350	1400
Unfavorable years	600	2000	200	800

800--UDELOPE-BREGAR-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		UDELOPE	BREGAR	ROCK OUTCROP	Inclusion 1
Idaho fescue	FEID	10-20	15-25	---	30-40
Letterman needlegrass	STLE4	5-10	---	---	---
Nevada bluegrass	PONE3	---	---	---	2-5
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STTH2	---	2-8	---	---
basin wildrye	ELCI2	---	---	---	2-10
bluebunch wheatgrass	AGSP	10-20	10-20	---	15-30
bluegrass	POA++	2-8	---	---	---
arrowleaf balsamroot	BASA3	---	---	---	2-5
tapertip hawksbeard	CRAC2	---	---	---	2-5
Douglas rabbitbrush	CHVI8	---	2-5	---	---
antelope bitterbrush	PUTR2	---	5-10	---	5-10
low sagebrush	ARAR8	---	25-35	---	---
mountain big sagebrush	ARVA2	15-25	---	---	10-20
mountain snowberry	SYOR2	2-8	---	---	---
curleaf mountainmahogany	CELE3	30-50	---	---	---
Range site number		025XY031NV	025XY051NV	none	025XY012NV
Potential production (lb/acre):					
Favorable years		1300	500		1400
Normal years		900	300		1000
Unfavorable years		600	200		700

801--UDELOPE-HACKWOOD-TUSEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		UDELOPE	HACKWOOD	TUSEL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	---	2-5	---	---	---	---
Idaho fescue	FEID	20-30	X	2-10	30-50	2-10	---	---
Letterman needlegrass	STLE4	2-8	---	---	---	2-5	---	---
Nevada bluegrass	PONE3	---	---	2-5	---	2-5	---	---
basin wildrye	ELCI2	5-10	---	---	---	5-15	---	---
bluebunch wheatgrass	AGSP	---	---	2-5	15-30	30-50	---	---
bluegrass	POA++	---	---	---	2-10	---	---	---
horsemint giant hyssop	AGUR	---	X	---	---	---	---	---
mountain brome	BRCA5	2-8	X	5-15	---	20-40	---	---
slender wheatgrass	AGTR	2-5	X	5-15	---	---	---	---
spike-fescue	LEKI2	---	---	2-10	---	2-5	---	---
carrotleaf lomatium	LODIM	---	---	2-5	---	---	---	---
geranium	GERAN	---	---	2-5	---	---	---	---
groundsel	SENEC	---	X	2-5	---	---	---	---
Utah serviceberry	AMUT	---	X	1-5	---	---	---	---
antelope bitterbrush	PUTR2	---	---	1-5	2-5	5-10	---	---
common chokecherry	PRVI	---	---	1-5	---	---	---	---
curlleaf mountainmahogany	CELE3	30-45	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	15-25	---	---	---
mountain big sagebrush	ARVA2	2-5	---	5-15	---	5-15	---	---
mountain snowberry	SYOR2	2-10	---	---	---	---	---	---
snowberry	SYMPH	---	X	2-15	---	---	---	---
snowbrush ceanothus	CEVE	---	---	---	---	---	---	70-80
quaking aspen	POTRT	---	X	---	---	---	---	---

Range site number	025XY075NV	025XY065NV	025XY004NV	025XY017NV	025XY016NV	none	025XY052NV
Potential production (lb/acre):							
Favorable years	2200	800	2800	900	2000		2800
Normal years	1800	600	1800	700	1400		2000
Unfavorable years	1300	400	1200	400	1000		1700

810--BATAN-GOLDRUN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BATAN	GOLDRUN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	30-40	---	---
basin wildrye	ELCI2	---	2-8	5-15	---
bottlebrush squirreltail	SIHY	5-10	---	---	---
inland saltgrass	DISPS2	---	---	5-10	---
needleandthread	STCO4	---	5-15	---	---
thickspike wheatgrass	AGDA	---	5-10	---	---
canaigre	RUHY	---	1-3	---	---
lemon scurfpea	PSLA	---	1-3	---	---
tufted eveningprimrose	OECE2	---	1-3	---	---
basin big sagebrush	ARTRT	---	25-30	---	---
black greasewood	SAVE4	15-30	---	60-75	---
bud sagebrush	ARSP5	2-8	---	---	---
fourwing saltbush	ATCA2	---	2-8	---	---
seepweed	SUAED	2-8	---	---	---
shadscale	ATCO	30-50	---	---	---
spiny hopsage	GRSP	---	2-8	---	---
Range site number		024XY003NV	024XY001NV	024XY011NV	none
Potential production (lb/acre):					
Favorable years		600	800	500	
Normal years		450	500	350	
Unfavorable years		300	300	200	

811--BATAN COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BATAN	BATAN	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	2-5	---	---	30-40
basin wildrye	ELCI2	---	5-20	55-65	---	2-8
bottlebrush squirreltail	SIHY	5-10	2-5	---	5-10	---
creeping wildrye	ELTR3	---	---	5-15	---	---
needleandthread	STCO4	---	---	---	---	5-15
thickspike wheatgrass	AGDA	---	---	---	---	5-10
western wheatgrass	AGSM	---	---	5-15	---	---
canaigre	RUHY	---	---	---	---	1-3
globemallow	SPHAE	---	1-2	---	---	---
lemon scurfpea	PSLA	---	---	---	---	1-3
thelypody	THELY	---	2-4	---	---	---
tufted eveningprimrose	OECE2	---	---	---	---	1-3
Wyoming big sagebrush	ARTRW	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	10-15	---	25-30
big sagebrush	ARTR2	---	10-25	---	---	---
black greasewood	SAVE4	15-30	20-30	2-8	15-30	---
bud sagebrush	ARSP5	2-8	---	---	2-8	---
fourwing saltbush	ATCA2	---	---	---	---	2-8
seepweed	SUAED	2-8	---	---	2-8	---
shadscale	ATCO	30-50	---	---	30-50	---
spiny hopsage	GRSP	---	5-15	---	---	2-8
Range site number		024XY003NV	024XY022NV	024XY006NV	024XY003NV	024XY001NV
Potential production (lb/acre):						
Favorable years		600	800	1500	600	800
Normal years		450	600	1100	450	500
Unfavorable years		300	350	600	300	300

813--BATAN SILT LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		BATAN	Inclusion 1	Inclusion 2
basin wildrye	ELCI2	---	5-15	55-65
bottlebrush squirreltail	SIHY	5-10	---	---
creeping wildrye	ELTR3	---	---	5-15
inland saltgrass	DISPS2	---	5-10	---
western wheatgrass	AGSM	---	---	5-15
basin big sagebrush	ARTRT	---	---	10-15
black greasewood	SAVE4	15-30	60-75	2-8
bud sagebrush	ARSP5	2-8	---	---
seepweed	SUAED	2-8	---	---
shadscale	ATCO	30-50	---	---
Range site number		024XY003NV	024XY011NV	024XY006NV
Potential production (lb/acre):				
Favorable years		600	500	1500
Normal years		450	350	1100
Unfavorable years		300	200	600

815--BATAN-PRIDEEN-WENDANE COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BATAN	PRIDEEN	WENDANE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	---	---	---	2-5	---	---
alkali sacaton	SPAI	---	---	---	5-15	---	60-70	---
basin wildrye	ELCI2	---	5-15	5-15	50-60	5-20	---	---
bottlebrush squirreltail	SIHY	5-10	---	---	---	2-5	---	5-10
inland saltgrass	DISPS2	---	5-10	5-10	2-8	---	2-10	---
globemallow	SPHAE	---	---	---	---	1-2	---	---
thelypody	THELY	---	---	---	---	2-4	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-25	---	---
black greasewood	SAVE4	15-30	60-75	60-75	5-15	20-30	1-5	15-30
bud sagebrush	ARSP5	2-8	---	---	---	---	---	2-8
iodinebush	ALOC2	---	---	---	---	---	10-20	---
rubber rabbitbrush	CHNA2	---	---	---	2-5	---	---	---
seepweed	SUAED	2-8	---	---	---	---	---	2-8
shadscale	ATCO	30-50	---	---	---	---	---	30-50
spiny hopsage	GRSP	---	---	---	---	5-15	---	---
Range site number		024XY003NV	024XY011NV	024XY011NV	024XY007NV	024XY022NV	024XY010NV	024XY003NV
Potential production (lb/acre):								
Favorable years		600	500	500	1900	800	450	600
Normal years		450	350	350	1400	600	300	450
Unfavorable years		300	200	200	800	350	150	300

818--BATAN-GOLDRUN-BUBUS COMPLEX, 0 TO 30 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BATAN	GOLDRUN	BUBUS	Inclusion 1
Indian ricegrass	ORHY	2-5	30-40	2-5	15-30
basin wildrye	ELCI2	5-20	2-8	5-20	5-10
bottlebrush squirreltail	SIHY	2-5	---	2-5	---
needleandthread	STCO4	---	5-15	---	30-40
thickspike wheatgrass	AGDA	---	5-10	---	---
canaigre	RUHY	---	1-3	---	---
globemallow	SPHAE	1-2	---	1-2	---
lemon scurfpea	PSLA	---	1-3	---	---
thelypody	THELY	2-4	---	2-4	---
tufted eveningprimrose	OECE2	---	1-3	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	25-30	---	---
big sagebrush	ARTR2	10-25	---	10-25	15-25
black greasewood	SAVE4	20-30	---	20-30	---
fourwing saltbush	ATCA2	---	2-8	---	---
spiny hopsage	GRSP	5-15	2-8	5-15	1-5

Range site number	024XY022NV	024XY001NV	024XY022NV	024XY017NV
Potential production (lb/acre):				
Favorable years	800	800	800	900
Normal years	600	500	600	700
Unfavorable years	350	300	350	500

823--WHIRLO-OROVADA-SNAPP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		WHIRLO	OROVADA	SNAPP	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	---	5-15	5-15	2-5
Sandberg bluegrass	POSE	---	2-8	---	2-8	---	---
Thurber needlegrass	STTH2	---	15-25	40-50	15-25	---	---
basin wildrye	ELCI2	---	---	---	---	---	5-20
bluebunch wheatgrass	AGSP	---	---	2-10	---	---	---
bottlebrush squirreltail	SIHY	5-10	2-5	---	2-5	5-10	2-5
globemallow	SPHAE	---	1-2	1-3	1-2	---	1-2
thelypody	THELY	---	---	---	---	---	2-4
Wyoming big sagebrush	ARTRW	---	25-35	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	10-25
big sagebrush	ARTR2	---	---	---	---	---	20-30
black greasewood	SAVE4	---	---	---	---	---	---
bud sagebrush	ARSP5	20-30	---	---	---	20-30	---
shadscale	ATCO	30-40	---	---	---	30-40	---
spiny hopsage	GRSP	2-5	5-15	2-5	5-15	2-5	5-15
winterfat	EULAS	2-5	---	---	---	2-5	---
Range site number		024XY002NV	024XY020NV	024XY005NV	024XY020NV	024XY002NV	024XY022NV
Potential production (lb/acre):							
Favorable years		750	700	800	700	750	800
Normal years		450	450	600	450	450	600
Unfavorable years		300	300	400	300	300	350

B25--WHIRLO-OXCOREL-WESO ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		WHIRLO	OXCOREL	WESO	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	5-15	5-15	---	---	5-15	---
Thurber needlegrass	STTH2	---	---	---	---	40-50	---	---
basin wildrye	ELCI2	---	---	---	5-15	---	---	---
bluebunch wheatgrass	AGSP	---	---	---	---	2-10	---	---
bottlebrush squirreltail	SIHY	5-10	5-10	5-10	---	---	5-10	5-10
inland saltgrass	DISPS2	---	---	---	5-10	---	---	---
globemallow	SPHAE	---	---	---	---	1-3	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	25-35	---	---
black greasewood	SAVE4	---	---	---	60-75	---	---	15-30
bud sagebrush	ARSP5	20-30	20-30	20-30	---	---	20-30	2-8
seepweed	SUAED	---	---	---	---	---	---	2-8
shadscale	ATCO	30-40	30-40	30-40	---	---	30-40	30-50
spiny hopsage	GRSP	2-5	2-5	2-5	---	2-5	2-5	---
winterfat	EULA5	2-5	2-5	2-5	---	---	2-5	---

Range site number	024XY002NV	024XY002NV	024XY002NV	024XY011NV	024XY005NV	024XY002NV	024XY003NV
Potential production (lb/acre):							
Favorable years	750	750	750	500	800	750	600
Normal years	450	450	450	350	600	450	450
Unfavorable years	300	300	300	200	400	300	300

831--BOTON-PLAYAS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BOTON	PLAYAS	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	5-15	---	---
basin wildrye	ELCI2	---	---	---	---	5-15
bottlebrush squirreltail	SIHY	5-10	---	5-10	5-10	---
inland saltgrass	DISPS2	---	---	---	---	5-10
black greasewood	SAVE4	15-30	---	---	15-30	60-75
bud sagebrush	ARSP5	2-8	---	20-30	2-8	---
seepweed	SUAED	2-8	---	---	2-8	---
shadscale	ATCO	30-50	---	30-40	30-50	---
spiny hopsage	GRSP	---	---	2-5	---	---
winterfat	EULA5	---	---	2-5	---	---
Range site number		024XY003NV	none	024XY002NV	024XY003NV	024XY011NV
Potential production (lb/acre):						
Favorable years		600		750	600	500
Normal years		450		450	450	350
Unfavorable years		300		300	300	200

833--BOTON-ISOLDE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BOTON	ISOLDE	BOTON	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	20-30	2-5	15-30	5-15	30-40
basin wildrye	ELCI2	---	---	5-20	5-10	---	2-8
bottlebrush squirreltail	SIHY	5-10	---	2-5	---	5-10	---
inland saltgrass	DISPS2	---	2-5	---	---	---	---
needleandthread	STCO4	---	---	---	30-40	---	5-15
thickspike wheatgrass	AGDA	---	---	---	---	---	5-10
canaigre	RUHY	---	---	---	---	---	1-3
globemallow	SPHAE	---	---	1-2	---	---	---
lemon scurfpea	PSLA	---	---	---	---	---	1-3
thelypody	THELY	---	---	2-4	---	---	---
tufted eveningprimrose	OECE2	---	---	---	---	---	1-3
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	25-30
big sagebrush	ARTR2	---	---	10-25	15-25	---	---
black greasewood	SAVE4	15-30	30-50	20-30	---	---	---
bud sagebrush	ARSP5	2-8	---	---	---	20-30	---
fourwing saltbush	ATCA2	---	2-5	---	---	---	2-8
seepweed	SUAED	---	---	---	---	---	---
shadscale	ATCO	30-50	2-5	---	---	30-40	---
spiny hopsage	GRSP	---	---	5-15	1-5	2-5	2-8
winterfat	EULA5	---	---	---	---	2-5	---

Range site number	024XY003NV	027XY016NV	024XY022NV	024XY017NV	024XY002NV	024XY001NV
Potential production (lb/acre):						
Favorable years	600	500	800	900	750	800
Normal years	450	300	600	700	450	500
Unfavorable years	300	150	350	500	300	300

634--BOTON-DAVEY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		BOTON	DAVEY	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	15-30	15-30	50-70	5-15
basin wildrye	ELCI2	5-10	5-10	---	---
bottlebrush squirreltail	SIHY	---	---	---	5-10
needleandthread	STCO4	30-40	30-40	5-15	---
Nevada dalea	PSPO	---	---	0-5	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTR1	---	---	---	---
big sagebrush	ARTR2	15-25	15-25	---	---
bud sagebrush	ARSP5	---	---	---	20-30
fourwing saltbush	ATCA2	---	---	10-20	---
shadscale	ATCO	---	---	---	30-40
spiny hopsage	GRSP	1-5	1-5	2-5	2-5
winterfat	EULA5	---	---	2-8	2-5
Range site number		024XY017NV	024XY017NV	027XY009NV	024XY002NV
Potential production (lb/acre):					
Favorable years		900	900	700	750
Normal years		700	700	450	450
Unfavorable years		500	500	250	300

840--DUGCHIP-FLUE-DEWAR ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DUGCHIP	FLUE	DEWAR	Inclusion 1	Inclusion 2
Thurber needlegrass	STTH2	40-50	40-50	40-50	40-50	40-50
bluebunch wheatgrass	AGSP	2-10	2-10	2-10	2-10	2-10
globemallow	SPHAE	1-3	1-3	1-3	1-3	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	2-5	2-5	2-5	2-5	2-5
Range site number		024XY005NV	024XY005NV	024XY005NV	024XY005NV	024XY005NV
Potential production (lb/acre):						
Favorable years		800	800	800	800	800
Normal years		600	600	600	600	600
Unfavorable years		400	400	400	400	400

842--DUGCHIP-KELK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DUGCHIP	KELK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	15-30	---	---
Thurber needlegrass	STTH2	40-50	---	---	40-50	---
basin wildrye	ELCI2	---	55-65	5-10	---	55-65
bluebunch wheatgrass	AGSP	2-10	---	---	2-10	---
creeping wildrye	ELTR3	---	5-15	---	---	5-15
needleandthread	STCO4	---	---	30-40	---	---
western wheatgrass	AGSM	---	5-15	---	---	5-15
globemallow	SPHAE	1-3	---	---	1-3	---
Wyoming big sagebrush	ARTRW	25-35	---	---	25-35	---
basin big sagebrush	ARTRT	---	10-15	---	---	10-15
big sagebrush	ARTR2	---	---	15-25	---	---
black greasewood	SAVE4	---	2-8	---	---	2-8
spiny hopsage	GRSP	2-5	---	1-5	2-5	---
Range site number		024XY005NV	024XY006NV	024XY017NV	024XY005NV	024XY006NV
Potential production (lb/acre):						
Favorable years		800	1500	900	800	1500
Normal years		600	1100	700	600	1100
Unfavorable years		400	600	500	400	600

844--DUGCHIP-CHIARA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DUGCHIP	CHIARA	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	5-15	5-15	---
Sandberg bluegrass	POSE	---	---	---	2-8	---
Thurber needlegrass	STTH2	40-50	40-50	---	15-25	40-50
bluebunch wheatgrass	AGSP	2-10	2-10	---	---	2-10
bottlebrush squirreltail	SIHY	---	---	5-10	2-5	---
globemallow	SPHAE	1-3	1-3	---	1-2	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	---	25-35	25-35
bud sagebrush	ARSP5	---	---	20-30	---	---
shadscale	ATCO	---	---	30-40	---	---
spiny hopsage	GRSP	2-5	2-5	2-5	5-15	2-5
winterfat	EULA5	---	---	2-5	---	---

Range site number	024XY005NV	024XY005NV	024XY002NV	024XY020NV	024XY005NV
Potential production (lb/acre):					
Favorable years	800	800	750	700	800
Normal years	600	600	450	450	600
Unfavorable years	400	400	300	300	400

845--DUGCHIP-NEEDLE PEAK COMPLEX, 0 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		DUGCHIP	NEEDLE PEAK	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	2-5	---	2-5	---	---	5-15
Thurber needlegrass	STTH2	---	---	---	---	40-50	---
basin wildrye	ELCI2	5-20	55-65	5-20	55-65	---	---
bluebunch wheatgrass	AGSP	---	---	---	---	2-10	---
bottlebrush squirreltail	SIHY	2-5	---	2-5	---	---	5-10
creeping wildrye	ELTR3	---	5-15	---	5-15	---	---
western wheatgrass	AGSM	---	5-15	---	5-15	---	---
globemallow	SPHAE	1-2	---	1-2	---	1-3	---
thelypody	THELY	2-4	---	2-4	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	25-35	---
basin big sagebrush	ARTRT	---	10-15	---	10-15	---	---
big sagebrush	ARTR2	10-25	---	10-25	---	---	---
black greasewood	SAVE4	20-30	2-8	20-30	2-8	---	---
bud sagebrush	ARSP5	---	---	---	---	---	20-30
shadscale	ATCO	---	---	---	---	---	30-40
spiny hopsage	GRSP	5-15	---	5-15	---	2-5	2-5
winterfat	EULA5	---	---	---	---	---	2-5
Range site number		024XY022NV	024XY006NV	024XY022NV	024XY006NV	024XY005NV	024XY002NV
Potential production (lb/acre):							
Favorable years		800	1500	800	1500	800	750
Normal years		600	1100	600	1100	600	450
Unfavorable years		350	600	350	600	400	300

860--GOOSEL-DEVADA-VANWYPER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		GOOSEL	DEVADA	VANWYPER	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	---	---	5-10	---
Sandberg bluegrass	POSE	2-5	2-10	---	2-5	---	---
Thurber needlegrass	STTH2	15-25	10-20	5-15	15-25	---	---
Webber ricegrass	STWE	---	5-10	---	---	---	---
basin wildrye	ELCI2	---	---	2-5	---	60-70	---
bluebunch wheatgrass	AGSP	25-40	20-30	60-80	25-40	---	---
mat muhly	MURI	---	---	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---
balsamroot	BALSA	---	2-5	---	---	---	---
Wyoming big sagebrush	ARTRW	15-25	---	5-15	15-25	---	---
antelope bitterbrush	PUTR2	---	---	1-5	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	5-10	---
low sagebrush	ARAR8	---	25-35	---	---	---	---
Range site number		025XY019NV	025XY022NV	025XY015NV	025XY019NV	025XY003NV	none
Potential production (lb/acre):							
Favorable years		800	600	1000	800	4500	
Normal years		600	400	700	600	3500	
Unfavorable years		400	250	500	400	2000	

861--GOOSEL VERY FINE SANDY LOAM, 0 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		GOOSEL	Inclusion 1	Inclusion 2	Inclusion 3
Sandberg bluegrass	POSE	---	---	2-10	---
Thurber needlegrass	STTH2	40-50	40-50	10-20	20-30
Webber ricegrass	STWE	---	---	5-10	---
bluebunch wheatgrass	AGSP	2-10	2-10	20-30	20-35
arrowleaf balsamroot	BASA3	---	---	---	2-5
balsamroot	BALSA	---	---	2-5	---
globemallow	SPHAE	1-3	1-3	---	---
tapertip hawksbeard	CRAC2	---	---	---	2-5
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---
big sagebrush	ARTR2	---	---	---	15- 25
low sagebrush	ARAR8	---	---	25-35	---
mountain big sagebrush	ARVA2	---	---	---	---
spiny hopsage	GRSP	2-5	2-5	---	---
Range site number		024XY005NV	024XY005NV	025XY022NV	024XY035NV
Potential production (lb/acre):					
Favorable years		800	800	600	500
Normal years		600	600	400	400
Unfavorable years		400	400	250	250

862--GOOSEL-DEVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		GOOSEL	DEVADA	GOOSEL	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	---	5-10	---	---
Sandberg bluegrass	POSE	2-5	2-8	2-5	---	2-10	---
Thurber needlegrass	STH2	15-25	15-30	15-25	---	10-20	---
Webber ricegrass	STWE	---	2-8	---	---	5-10	---
basin wildrye	ELCI2	---	---	---	60-70	---	---
bluebunch wheatgrass	AGSP	25-40	20-40	25-40	---	20-30	---
mat muhly	MURI	---	---	---	2-8	---	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---	---
balsamroot	BALSA	---	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	15-25	---	15-25	---	---	---
basin big sagebrush	ARTRW	---	---	---	5-10	---	---
early sagebrush	ARLO9	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	25-35	---
sagebrush	ARTEM	---	20-30	---	---	---	---
Range site number		025XY019NV	025XY018NV	025XY019NV	025XY003NV	025XY022NV	none
Potential production (lb/acre):							
Favorable years		800	800	800	4500	600	
Normal years		600	600	600	3500	400	
Unfavorable years		400	400	400	2000	250	

863--GOOSEL-MIDRAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		GOOSEL	MIDRAW	Inclusion 1	Inclusion 2	Inclusion 3
Sandberg bluegrass	POSE	2-5	2-5	2-8	---	2-5
Thurber needlegrass	STTH2	15-25	15-25	15-30	---	15-25
Webber ricegrass	STWE	---	---	2-8	---	---
bluebunch wheatgrass	AGSP	25-40	25-40	20-40	---	25-40
Wyoming big sagebrush	ARTRW	15-25	15-25	---	---	15-25
early sagebrush	ARLO9	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---
sagebrush	ARTEM	---	---	20-30	---	---
Range site number		025XY019NV	025XY019NV	025XY018NV	none	025XY019NV
Potential production (lb/acre):						
Favorable years		800	800	800		800
Normal years		600	600	600		600
Unfavorable years		400	400	400		400

880--CLEAVAGE-SUMINE-HARCANY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		CLEAVAGE	SUMINE	HARCANY	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	5-15	---	5-10	2-8	---	---	---
Columbia needlegrass	STNE3	---	---	10-20	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	2-8	5-10	---	---
Idaho fescue	FEID	10-20	---	2-5	30-40	30-50	---	---
Letterman needlegrass	STLE4	---	---	---	---	2-5	---	---
Nevada bluegrass	PONE3	---	---	5-10	---	---	2-5	---
Sandberg bluegrass	POSE	5-15	---	---	---	---	---	---
Thurber needlegrass	STTH2	---	5-10	---	2-8	---	---	---
basin wildrye	ELCI2	---	2-10	5-10	5-15	---	40-60	---
bluebunch wheatgrass	AGSP	---	50-70	---	15-35	2-5	---	---
bluegrass	POA++	5-15	---	5-10	2-8	---	---	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOBRR2	---	---	---	---	---	---	5-10
mountain brome	BRCA5	---	---	20-40	---	---	---	---
needlegrass	STIPA	---	---	10-20	---	---	---	---
rush	JUNCU	---	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	2-5	5-10
slender wheatgrass	AGTR	---	---	---	---	---	5-15	---
streambank wheatgrass	AGDAR	---	---	---	---	---	5-15	---
thickspike wheatgrass	AGDA	---	---	---	---	---	5-15	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
western needlegrass	STOC2	---	---	10-20	---	---	---	---
wheatgrass	AGROP2	---	---	---	---	---	5-15	---
arrowleaf balsamroot	BASA3	---	---	---	---	1-3	---	---
goldenweed	HAPLO2	2-5	---	---	---	---	---	---
lupine	LUPIN	---	---	---	---	---	2-5	---
tapertip hawksbeard	CRAC2	---	---	---	---	1-3	---	---
Douglas rabbitbrush	CHVI8	2-5	---	---	---	---	---	---
antelope bitterbrush	PUTR2	---	2-5	---	2-10	---	---	---
low sagebrush	ARAR8	35-45	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	5-15	10-20	10-20	---	15-25	---
snowberry	SYMPH	---	---	2-5	---	2-5	---	---
threetip sagebrush	ARTR4	---	---	---	---	15-25	---	---

Range site number	023XY008NV	023XY016NV	023XY019NV	023XY007NV	023XY053NV	023XY056NV	023XY025NV
Potential production (lb/acre):							
Favorable years	400	1500	2200	1600	1000	2200	4000
Normal years	250	1100	1800	1200	800	1700	3000
Unfavorable years	200	800	1500	900	600	1200	2000

861--CLEAVAGE-BURRITA-BREGAR ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		CLEAVAGE	BURRITA	BREGAR	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Columbia needlegrass	STNE3	---	---	---	---	---	5-10	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	20-40	---	15-25	---	20-40	5-10	---
Nevada bluegrass	PONE3	---	---	---	---	---	2-5	---
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STTH2	2-8	5-15	---	15-25	2-8	---	2-5
Webber ricegrass	STWE	---	---	2-5	5-10	---	---	---
basin wildrye	ELCI2	---	2-5	---	---	2-15	---	5-10
bluebunch wheatgrass	AGSP	10-20	40-60	2-5	15-20	20-40	5-10	30-50
bluegrass	POA++	2-8	2-8	5-10	2-8	---	---	---
mountain brome	BRCA5	---	---	---	---	---	15-30	2-15
pine bluegrass	POSC	---	---	---	---	---	---	---
slender wheatgrass	AGTR	---	---	---	---	---	5-10	---
arrowleaf balsamroot	BASA3	---	2-5	---	---	1-5	---	2-5
balsamroot	BALSA	---	---	---	2-5	---	---	---
goldenweed	HAPLO2	---	---	2-5	---	---	---	---
helianthella	HELIA	---	---	---	---	1-2	---	---
lupine	LUPIN	---	---	---	---	---	---	2-5
tapertip hawksbeard	CRAC2	---	2-5	---	---	1-5	---	2-5
white stoneseed	LIRU4	---	---	---	---	1-2	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	15-25	---	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	20-30	---	---	25-35	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	15-25	10-20	10-20
sagebrush	ARTEM	---	---	25-40	---	---	---	---
serviceberry	AMELA	---	---	---	---	---	2-10	---
snowberry	SYMPH	---	---	---	---	---	2-5	---

Range site number	024XY027NV	024XY028NV	024XY016NV	024XY018NV	024XY021NV	024XY032NV	024XY029NV
Potential production (lb/acre):							
Favorable years	1200	1000	350	700	1400	2200	1500
Normal years	800	700	250	500	1000	1700	1100
Unfavorable years	600	500	150	300	700	1200	800

882--CLEAVAGE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		CLEAVAGE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Columbia needlegrass	STNE3	---	---	---	---	2-5
Idaho fescue	FEID	15-30	---	30-50	10-20	2-10
Letterman needlegrass	STLE4	---	---	---	5-10	---
Nevada bluegrass	PONE3	---	---	---	---	2-5
bluebunch wheatgrass	AGSP	---	---	15-30	10-20	2-5
bluegrass	POA++	5-15	---	2-10	2-8	---
mountain brome	BRCA5	---	---	---	---	5-15
slender wheatgrass	AGTR	---	---	---	---	5-15
spike-fescue	LEKI2	---	---	---	---	2-10
carrotleaf lomatium	LODIM	---	---	---	---	2-5
geranium	GERAN	---	---	---	---	2-5
goldenweed	HAPLO2	2-5	---	---	---	---
groundsel	SENEC	---	---	---	---	2-5
Utah serviceberry	AMUT	---	---	---	---	1-5
antelope bitterbrush	PUTR2	---	---	2-5	---	1-5
black sagebrush	ARARN	---	---	---	---	---
common chokecherry	PRVI	---	---	---	---	1-5
low sagebrush	ARAR8	---	---	15-25	---	---
mountain big sagebrush	ARVA2	---	---	---	15-25	5-15
mountain snowberry	SYOR2	---	---	---	2-8	---
sagebrush	ARTEM	30-35	---	---	---	---
snowberry	SYMPH	---	---	---	---	2-15
curllleaf mountainmahogany	CELE3	---	---	---	30-50	---
Range site number		025XY024NV	none	025XY017NV	025XY031NV	025XY004NV
Potential production (lb/acre):						
Favorable years		400		900	1300	2800
Normal years		275		700	900	1800
Unfavorable years		150		400	600	1200

893--CLEAVAGE-TUSEL-ANAWALT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		CLEAVAGE	TUSEL	ANAWALT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Columbia needlegrass	STNE3	---	5-10	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	20-40	5-10	---	---	20-40	15-25	15-25
Nevada bluegrass	PONE3	---	2-5	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STH2	2-8	---	15-25	---	2-8	---	---
Webber ricegrass	STWE	---	---	5-10	---	---	2-5	---
basin wildrye	ELCI2	---	---	---	---	2-15	---	---
bluebunch wheatgrass	AGSP	10-20	5-10	15-20	---	20-40	2-5	5-15
bluegrass	POA++	2-8	---	2-8	---	---	5-10	2-5
mountain brome	BRCAS	---	15-30	---	---	---	---	---
needlegrass	STIPA	---	---	---	---	---	---	2-8
pine bluegrass	POSC	---	---	---	---	---	---	---
slender wheatgrass	AGTR	---	5-10	---	---	---	---	---
western needlegrass	STOC2	---	---	---	---	---	---	---
arrowleaf balsamroot	BASA3	---	---	---	---	1-5	---	---
balsamroot	BALSA	---	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	2-5	---
helianthella	HELIA	---	---	---	---	1-2	---	---
tapertip hawksbeard	CRAC2	---	---	---	---	1-5	---	---
white stoneseed	LIRU4	---	---	---	---	1-2	---	---
antelope bitterbrush	PUTR2	---	---	---	---	---	---	2-5
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	20-30	---	25-35	---	---	---	---
mountain big sagebrush	ARVA2	---	10-20	---	---	15-25	---	5-15
sagebrush	ARTEM	---	---	---	---	---	25-40	---
serviceberry	AMELA	---	2-10	---	---	---	---	---
snowberry	SYMPH	---	2-5	---	---	---	---	2-8

Range site number	024XY027NV	024XY032NV	024XY018NV	none	024XY021NV	024XY016NV	025XY071NV
Potential production (lb/acre):							
Favorable years	1200	2200	700		1400	350	1700
Normal years	800	1700	500		1000	250	1300
Unfavorable years	600	1200	300		700	150	900

884--CLEAVAGE-ANAWALT-TUSEL ASSOCIATION

[An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		CLEAVAGE	ANAWALT	TUSEL	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Columbia needlegrass	STNE3	---	---	5-10	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Idaho fescue	FEID	20-40	---	5-10	20-40	15-25	X
Nevada bluegrass	PONE3	---	---	2-5	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegrass	STH2	2-8	15-25	---	2-8	---	---
Webber ricegrass	STWE	---	5-10	---	---	2-5	---
basin wildrye	ELCI2	---	---	---	2-15	---	---
bluebunch wheatgrass	AGSP	10-20	15-20	5-10	20-40	2-5	---
bluegrass	POA++	2-8	2-8	---	---	5-10	---
horsemint giant hyssop	AGUR	---	---	---	---	---	X
mountain brome	BRCA5	---	---	15-30	---	---	X
pine bluegrass	POSC	---	---	---	---	---	---
slender wheatgrass	AGTR	---	---	5-10	---	---	X
arrowleaf balsamroot	BASA3	---	---	---	1-5	---	---
balsamroot	BALSA	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	2-5	---
groundsel	SENEC	---	---	---	---	---	X
helianthella	HELIA	---	---	---	1-2	---	---
tapertip hawkbeard	CRAC2	---	---	---	1-5	---	---
white stoneseed	LIRU4	---	---	---	1-2	---	---
Utah serviceberry	AMUT	---	---	---	---	---	X
black sagebrush	ARARN	---	---	---	---	---	---
low sagebrush	ARAR8	20-30	25-35	---	---	---	---
mountain big sagebrush	ARVA2	---	---	10-20	15-25	---	---
sagebrush	ARTEM	---	---	---	---	25-40	---
serviceberry	AMELA	---	---	2-10	---	---	---
snowberry	SYMPH	---	---	2-5	---	---	X
quaking aspen	POTRT	---	---	---	---	---	X

Range site number	024XY027NV	024XY018NV	024XY032NV	024XY021NV	024XY016NV	none	025XY065NV
Potential production (lb/acre):							
Favorable years	1200	700	2200	1400	350		800
Normal years	800	500	1700	1000	250		600
Unfavorable years	600	300	1200	700	150		400

885--CLEAVAGE-RELUCTAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		CLEAVAGE	CLEAVAGE	RELUCTAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	30-50	30-50	40-60	15-30	30-40	---	15-25
Nevada bluegrass	PONE3	---	---	2-8	---	2-5	---	---
Thurber needlegrass	STTH2	---	---	---	---	---	---	---
basin wildrye	ELCI2	---	---	2-8	---	2-10	---	---
bluebunch wheatgrass	AGSP	15-30	15-30	5-15	---	15-30	---	5-15
bluegrass	POA++	2-10	2-10	---	5-15	---	---	2-5
needlegrass	STIPA	---	---	---	---	---	---	2-8
western needlegrass	STOC2	---	---	---	---	---	---	---
arrowleaf balsamroot	BASA3	---	---	---	---	2-5	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---	---
tapertip hawksbeard	CRAC2	---	---	---	---	2-5	---	---
antelope bitterbrush	PUTR2	2-5	2-5	---	---	5-10	---	2-5
basin big sagebrush	ARTRT	---	---	10-20	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	15-25	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	10-20	---	5-15
sagebrush	ARTEM	---	---	---	30-35	---	---	---
snowberry	SYMPH	---	---	---	---	---	---	2-8

Range site number	025XY017NV	025XY017NV	025XY027NV	025XY024NV	025XY012NV	none	025XY071NV
Potential production (lb/acre):							
Favorable years	900	900	1300	400	1400		1700
Normal years	700	700	900	275	1000		1300
Unfavorable years	400	400	500	150	700		900

886--CLEAVAGE-BULLUMP ASSOCIATION

(An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community)

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		CLEAVAGE	BULLUMP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	30-50	2-10	15-30	---	10-20	X
Letterman needlegrass	STLE4	---	2-5	---	---	5-10	---
Nevada bluegrass	PONE3	---	2-5	---	---	---	X
basin wildrye	ELCI2	---	5-15	---	---	---	---
bluebunch wheatgrass	AGSP	15-30	30-50	---	---	10-20	---
bluegrass	POA++	2-10	---	5-15	---	2-8	---
mountain brome	BRCA5	---	20-40	---	---	---	X
rush	JUNCU	---	---	---	---	---	X
sedge	CAREX	---	---	---	---	---	X
slender wheatgrass	AGTR	---	---	---	---	---	X
spike-fescue	LEKI2	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	2-5	---	---	---
groundsel	SENEC	---	---	---	---	---	X
yarrow	ACHIL	---	---	---	---	---	X
Woods rose	ROWO	---	---	---	---	---	X
antelope bitterbrush	PUTR2	2-5	5-10	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---
low sagebrush	ARAR8	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	---	5-15	---	---	15-25	---
mountain snowberry	SYOR2	---	---	---	---	2-8	---
sagebrush	ARTEM	---	---	30-35	---	---	---
curleaf mountainmahogany	CELE3	---	---	---	---	30-50	---
quaking aspen	POTRT	---	---	---	---	---	X

Range site number	025XY017NV	025XY016NV	025XY024NV	none	025XY031NV	025XY064NV
Potential production (lb/acre):						
Favorable years	900	2000	400		1300	1600
Normal years	700	1400	275		900	1300
Unfavorable years	400	1000	150		600	1000

891--SOFTSCRABBLE-CLEAVAGE-HARCANY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SOFTSCRABBLE	CLEAVAGE	HARCANY	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	5-15	5-10	---	---	2-8	---
Columbia needlegress	STNE3	---	---	10-20	---	2-5	---	---
Cusick bluegrass	POCU3	2-8	---	---	5-10	---	---	---
Idaho fescue	FEID	30-40	10-20	2-5	30-50	---	30-40	---
Letterman needlegress	STLE4	---	---	---	2-5	60-70	---	---
Nevada bluegrass	PONE3	---	---	5-10	---	---	---	40-50
Sandberg bluegrass	POSE	---	5-15	---	---	---	2-8	---
Thurber needlegress	STTH2	2-8	---	---	---	---	2-5	---
basin wildrye	ELCI2	5-15	---	5-10	---	---	2-5	---
bluebunch wheatgrass	AGSP	15-35	---	---	2-5	---	20-30	---
bluegrass	POA++	2-8	5-15	5-10	---	---	2-8	---
creeping wildrye	ELTR3	---	---	---	---	---	---	2-5
mat muhly	MURI	---	---	---	---	---	---	2-5
meadow barley	HOB2	---	---	---	---	---	---	2-5
mountain brome	BRCA5	---	---	20-40	---	---	---	---
needlegress	STIPA	---	---	10-20	---	---	---	---
rush	JUNCU	---	---	---	---	---	---	2-5
sedge	CAREX	---	---	---	---	---	---	5-15
slender wheatgrass	AGTR	---	---	---	---	2-5	---	2-5
western needlegress	STOC2	---	---	10-20	---	---	---	---
arrowleaf balsamroot	BASA3	---	---	---	1-3	---	---	---
goldenweed	HAPLO2	---	2-5	---	---	---	---	---
tailcup lupine	LUCA	---	---	---	---	20-40	---	---
tapertip hawksbeard	CRAC2	---	---	---	1-3	---	---	---
Douglas rabbitbrush	CHV18	---	2-5	---	---	---	---	---
antelope bitterbrush	PUTR2	2-10	---	---	---	---	---	---
low sagebrush	ARAR8	---	35-45	---	---	---	10-20	---
mountain big sagebrush	ARVA2	10-20	---	10-20	---	---	---	---
snowberry	SYMPH	---	---	2-5	2-5	---	---	---
threetip sagebrush	ARTR4	---	---	---	15-25	---	---	---

Range site number	023XY007NV	023XY008NV	023XY019NV	023XY053NV	023XY062NV	023XY017NV	023XY013NV
Potential production (lb/acre):							
Favorable years	1600	400	2200	1000	1000	900	2200
Normal years	1200	250	1800	800	800	700	1700
Unfavorable years	900	200	1500	600	500	500	1300

892--SOFTSCRABBLE-CLEAVAGE-NINEMILE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SOFTSCRABBLE	CLEAVAGE	NINEMILE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	2-8	---	---	---	---
Columbia needleggrass	STNE3	---	---	---	---	---	2-5	---
Idaho fescue	FEID	30-40	30-50	10-20	15-25	---	2-5	---
Nevada bluegrass	PONE3	2-5	---	---	---	---	2-5	40-60
Thurber needleggrass	STTH2	---	---	5-15	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	---	20-40
basin wildrye	ELCI2	2-10	---	---	---	---	---	2-8
bluebunch wheatgrass	AGSP	15-30	15-30	20-40	5-15	---	2-5	---
bluegrass	POA++	---	2-10	---	2-5	---	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
meadow barley	HOBR2	---	---	---	---	---	---	2-5
mountain brome	BRCA5	---	---	---	---	---	5-15	---
needleggrass	STIPA	---	---	---	2-8	---	---	---
sedge	CAREX	---	---	---	---	---	---	2-8
slender wheatgrass	AGTR	---	---	---	---	---	5-15	---
spike-fescue	LEKI2	---	---	---	---	---	2-10	---
western needleggrass	STOC2	---	---	---	---	---	---	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---	---
carrotleaf lomatium	LODIM	---	---	---	---	---	2-5	---
geranium	GERAN	---	---	---	---	---	2-5	---
groundsel	SENEC	---	---	---	---	---	2-5	---
tapertip hawkbeard	CRAC2	2-5	---	---	---	---	---	---
Utah serviceberry	AMUT	---	---	---	---	---	1-5	---
antelope bitterbrush	PUTR2	5-10	2-5	25-45	2-5	---	1-5	---
common chokecherry	PRVI	---	---	---	---	---	1-5	---
low sagebrush	ARAR8	---	15-25	10-20	---	---	---	---
mountain big sagebrush	ARVA2	10-20	---	---	5-15	---	5-15	---
snowberry	SYMPH	---	---	---	2-8	---	2-15	---

Range site number	025XY012NV	025XY017NV	025XY023NV	025XY071NV	none	025XY004NV	025XY006NV
Potential production (lb/acre):							
Favorable years	1400	900	1200	1700		2800	2000
Normal years	1000	700	1000	1300		1800	1300
Unfavorable years	700	400	800	900		1200	800

900--ROCA-BREGAR-LINROSE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROCA	BREGAR	LINROSE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	5-15	---	5-15	---	---
Idaho fescue	FEID	---	15-25	30-60	---	50-60	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STH2	5-15	---	---	---	---	---	---
Webber ricegrass	STWE	---	2-5	---	---	---	---	---
basin wildrye	ELCI2	2-5	---	---	---	---	---	---
bluebunch wheatgrass	AGSP	40-60	2-5	2-10	---	5-15	---	---
bluegrass	POA++	2-8	5-10	---	---	---	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
pine bluegrass	POSC	---	---	---	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---	---
goldenweed	HAPLO2	---	2-5	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	2-5	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
big sagebrush	ARTR2	15-25	---	---	---	---	---	---
black sagebrush	ARARN	---	---	25-35	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	5-15	---	---
sagebrush	ARTEM	---	25-40	---	---	---	---	---
snowberry	SYMPH	---	---	---	---	2-5	---	---
Range site number		024XY028NV	024XY016NV	024XY042NV	none	024XY023NV	none	025XY003NV
Potential production (lb/acre):								
Favorable years		1000	350	1000		1500		4500
Normal years		700	250	800		1200		3500
Unfavorable years		500	150	500		900		2000

901--ROCA-RELUCTAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ROCA	RELUCTAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Idaho fescue	FEID	---	20-40	15-25	---	---	20-40
Nevada bluegrass	PONE3	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegrass	STTH2	5-15	2-8	---	---	20-30	2-8
Webber ricegrass	STWE	---	---	2-5	---	---	---
basin wildrye	ELCI2	2-5	2-15	---	---	2-5	---
bluebunch wheatgrass	AGSP	40-60	20-40	2-5	---	30-40	10-20
bluegrass	POA++	2-8	---	5-10	---	2-8	2-8
pine bluegrass	POSC	---	---	---	---	---	---
arrowleaf balsamroot	BASA3	2-5	1-5	---	---	---	---
goldenweed	HAPLO2	---	---	2-5	---	---	---
helianthella	HELIA	---	1-2	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	1-5	---	---	---	---
white stoneseed	LIRU4	---	1-2	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	15-25	---	---	---	10-15	---
black sagebrush	ARARN	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	20-30
mountain big sagebrush	ARVA2	---	15-25	---	---	---	---
sagebrush	ARTEM	---	---	25-40	---	---	---

Range site number	024XY028NV	024XY021NV	024XY016NV	none	024XY013NV	024XY027NV
Potential production (lb/acre):						
Favorable years	1000	1400	350		1000	1200
Normal years	700	1000	250		800	800
Unfavorable years	500	700	150		600	600

902--ROCA-ALYAN-QUOMUS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROCA	ALYAN	QUOMUS	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	5-15	---	---
Idaho fescue	FEID	---	20-40	---	20-40	50-60	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	2-5	---
Thurber needlegrass	STTH2	5-15	2-8	20-30	2-8	---	15-25	---
basin wildrye	ELCI2	2-5	2-15	2-5	---	---	---	---
bluebunch wheatgrass	AGSP	40-60	20-40	30-40	10-20	5-15	25-40	---
bluegrass	POA++	2-8	---	2-8	2-8	---	---	---
arrowleaf balsamroot	BASA3	2-5	1-5	---	---	---	---	---
helianthella	HELIA	---	1-2	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	1-5	---	---	---	---	---
white stoneseed	LIRU4	---	1-2	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	15-25	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	15-25	---	10-15	---	---	---	---
low sagebrush	ARAR8	---	---	---	20-30	---	---	---
mountain big sagebrush	ARVA2	---	15-25	---	---	5-15	---	---
snowberry	SYMPH	---	---	---	---	2-5	---	---

Range site number	024XY028NV	024XY021NV	024XY013NV	024XY027NV	024XY023NV	025XY019NV	none
Potential production (lb/acre):							
Favorable years	1000	1400	1000	1200	1500	800	
Normal years	700	1000	800	800	1200	600	
Unfavorable years	500	700	600	600	900	400	

903--ROCA-WALTI-RELUCTAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROCA	WALTI	RELUCTAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	---	20-40	20-40	---	15-25	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STTH2	5-15	2-8	2-8	40-50	---	---	---
Webber ricegrass	STWE	---	---	---	---	2-5	---	---
basin wildrye	ELCI2	2-5	---	2-15	---	---	---	60-70
bluebunch wheatgrass	AGSP	40-60	10-20	20-40	2-10	2-5	---	---
bluegrass	POA++	2-8	2-8	---	---	5-10	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
pine bluegrass	POSC	---	---	---	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	2-5	---	1-5	---	---	---	---
globemallow	SPHAE	---	---	---	1-3	---	---	---
goldenweed	HAPLO2	---	---	---	---	2-5	---	---
helianthella	HELIA	---	---	1-2	---	---	---	---
tapertip hawkbeard	CRAC2	2-5	---	1-5	---	---	---	---
white stoneseed	LIRU4	---	---	1-2	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
big sagebrush	ARTR2	15-25	---	---	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	20-30	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	15-25	---	---	---	---
sagebrush	ARTEM	---	---	---	---	25-40	---	---
spiny hopsage	GRSP	---	---	---	2-5	---	---	---
Range site number		024XY028NV	024XY027NV	024XY021NV	024XY005NV	024XY016NV	none	025XY003NV
Potential production (lb/acre):								
Favorable years		1000	1200	1400	800	350		4500
Normal years		700	800	1000	600	250		3500
Unfavorable years		500	600	700	400	150		2000

907--ROCA-CLIMINE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROCA	CLIMINE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	2-8	---	---	---	---	---
Idaho fescue	FEID	---	30-50	---	---	20-40	---	20-40
Indian ricegrass	ORHY	---	---	---	---	---	10-15	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STTH2	5-15	---	---	20-30	2-8	2-10	2-8
basin wildrye	ELCI2	2-5	---	---	---	2-15	---	---
bluebunch wheatgrass	AGSP	40-60	10-30	---	20-35	20-40	---	10-20
bluegrass	POA++	2-8	---	---	---	---	---	2-8
bottlebrush squirreltail	SIHY	---	---	---	---	---	2-5	---
needleandthread	STCO4	---	---	---	---	---	15-25	---
arrowleaf balsamroot	BASA3	2-5	---	---	2-5	1-5	---	---
helianthella	HELLA	---	---	---	---	1-2	---	---
tapertip hawksbeard	CRAC2	2-5	2-5	---	2-5	1-5	---	---
white stoneseed	LIRU4	---	---	---	---	1-2	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	15-25	---	---	15- 25	---	25-35	---
horsebrush	TETRA3	---	---	---	---	---	2-5	---
low sagebrush	ARAR8	---	---	---	---	---	---	20-30
mountain big sagebrush	ARVA2	---	---	---	---	15-25	---	---
threetip sagebrush	ARTR4	---	15-25	---	---	---	---	---

Range site number	024XY028NV	024XY046NV	none	024XY035NV	024XY021NV	024XY058NV	024XY027NV
Potential production (lb/acre):							
Favorable years	1000	1100		500	1400	1300	1200
Normal years	700	900		400	1000	1000	800
Unfavorable years	500	600		250	700	700	600

909--ROCA-NOMARA-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROCA	NOMARA	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	---	20-40	---	20-40	10-20	15-25	---
Letterman needlegrass	STLE4	---	---	---	---	5-10	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STH2	5-15	2-8	---	2-8	---	---	---
Webber ricegrass	STWE	---	---	---	---	---	2-5	---
basin wildrye	ELCI2	2-5	2-15	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	40-60	20-40	---	10-20	10-20	2-5	---
bluegrass	POA++	2-8	---	---	2-8	2-8	5-10	---
mat muhly	MURI	---	---	---	---	---	---	2-8
pine bluegrass	POSC	---	---	---	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	2-5	1-5	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	2-5	---
helianthella	HELIA	---	1-2	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	1-5	---	---	---	---	---
white stoneseed	LIRU4	---	1-2	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
big sagebrush	ARTR2	15-25	---	---	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	20-30	---	---	---
mountain big sagebrush	ARVA2	---	15-25	---	---	15-25	---	---
mountain snowberry	SYOR2	---	---	---	---	2-8	---	---
sagebrush	ARTEM	---	---	---	---	---	25-40	---
curlleaf mountainmahogany	CELE3	---	---	---	---	30-50	---	---

Range site number	024XY028NV	024XY021NV	none	024XY027NV	025XY031NV	024XY016NV	025XY003NV
Potential production (lb/acre):							
Favorable years	1000	1400		1200	1300	350	4500
Normal years	700	1000		800	900	250	3500
Unfavorable years	500	700		600	600	150	2000

911--BARNARD-DEVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BARNARD	BARNARD	DEVADA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	5-15	---	---	---
Idaho fescue	FEID	---	---	---	---	---	20-40	---
Nevada bluegrass	PONE3	---	---	---	---	5-10	---	40-60
Sandberg bluegrass	POSE	---	---	---	2-5	---	---	---
Thurber needlegrass	STTH2	20-30	5-15	15-25	---	---	2-8	---
Webber ricegrass	STWE	---	---	5-10	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	---	20-40
basin wildrye	ELCI2	2-5	2-5	---	---	60-70	---	2-8
bluebunch wheatgrass	AGSP	30-40	40-60	15-20	---	---	10-20	---
bluegrass	POA++	2-8	2-8	2-8	---	---	2-8	---
fescue	FESTU	---	---	---	50-70	---	---	---
mat muhly	MURI	---	---	---	---	2-8	---	2-8
meadow barley	HOBR2	---	---	---	---	---	---	2-5
sedge	CAREX	---	---	---	---	---	---	2-8
sheep fescue	FEOV	---	---	---	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---	---
arrowleaf balsamroot	BASA3	---	2-5	---	---	---	---	---
balsamroot	BALSA	---	---	2-5	2-5	---	---	---
tapertip hawksbeard	CRAC2	---	2-5	---	2-5	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	15-25	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	5-10	---	---
big sagebrush	ARTR2	10-15	15-25	---	---	---	---	---
low sagebrush	ARAR8	---	---	25-35	---	---	20-30	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---

Range site number	024XY013NV	024XY028NV	024XY018NV	024XY033NV	025XY003NV	024XY027NV	025XY006NV
Potential production (lb/acre):							
Favorable years	1000	1000	700	800	4500	1200	2000
Normal years	800	700	500	600	3500	800	1300
Unfavorable years	600	500	300	400	2000	600	800

921--WALTI-SUMINE-RELUCTAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		WALTI	SUMINE	RELUCTAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	20-40	---	20-40	---	---	15-25	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STH2	2-8	2-5	2-8	10-20	---	---	---
Webber ricegrass	STWE	---	---	---	---	---	2-5	---
basin wildrye	ELCI2	---	5-10	2-15	2-8	---	---	60-70
bluebunch wheatgrass	AGSP	10-20	30-50	20-40	20-35	---	2-5	---
bluegrass	POA++	2-8	---	---	2-10	---	5-10	---
mat muhly	MURI	---	---	---	---	---	---	2-8
mountain brome	BRCA5	---	2-15	---	---	---	---	---
pine bluegrass	POSC	---	---	---	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	2-5	1-5	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	2-5	---
helianthella	HELIA	---	---	1-2	---	---	---	---
lupine	LUPIN	---	2-5	---	---	---	---	---
tapertip hawksbeard	CRAC2	---	2-5	1-5	---	---	---	---
white stoneseed	LIRU4	---	---	1-2	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
antelope bitterbrush	FUTR2	---	---	---	2-8	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	---	10-15	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	20-30	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	10-20	15-25	---	---	---	---
sagebrush	ARTEM	---	---	---	---	---	25-40	---

Range site number	024XY027NV	024XY029NV	024XY021NV	025XY014NV	none	024XY016NV	025XY003NV
Potential production (lb/acre):							
Favorable years	1200	1500	1400	1000		350	4500
Normal years	800	1100	1000	800		250	3500
Unfavorable years	600	800	700	600		150	2000

922--WALTI-RELUCTAN-TUSEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		WALTI	RELUCTAN	TUSEL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	2-5	---	5-10	---	---	5-15
Columbia needlegrass	STNE3	---	10-20	---	---	---	---	---
Idaho fescue	FEID	30-40	2-5	2-10	---	---	---	10-20
Letterman needlegrass	STLE4	---	10-20	2-5	---	---	---	---
Nevada bluegrass	PONE3	---	---	2-5	---	---	---	---
Sandberg bluegrass	POSE	2-8	---	---	5-10	---	---	5-15
Thurber needlegrass	STTH2	2-5	---	---	10-20	---	---	---
basin wildrye	ELCI2	2-5	2-5	---	---	---	---	---
blue wildrye	ELGL	---	---	2-5	---	---	---	---
bluebunch wheatgrass	AGSP	20-30	---	2-5	20-50	---	---	---
bluegrass	POA++	2-8	---	---	5-10	5-10	---	5-15
mannagrass	GLYCE	---	---	---	---	5-10	---	---
meadow barley	HOB2	---	---	---	---	5-10	---	---
mountain brome	BRCAS	---	---	5-15	---	---	---	---
purple oniongrass	MESP	---	---	2-5	---	---	---	---
rush	JUNCU	---	---	---	---	5-10	---	---
sedge	CAREX	---	---	---	---	5-10	---	---
slender wheatgrass	AGTR	---	---	5-15	---	---	---	---
tufted hairgrass	DECE	---	---	---	---	30-50	---	---
western needlegrass	STOC2	---	5-10	---	---	---	---	---
arrowleaf balsamroot	BASA3	---	2-5	---	---	---	---	---
carrotleaf lomatium	LODIM	---	---	2-5	---	---	---	---
clover	TRIFO	---	---	2-5	---	---	---	---
geranium	GERAN	---	---	2-10	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	---	2-5
groundsel	SENEC	---	---	2-10	---	---	---	---
horsemint giant hyssop	AGUR	---	---	2-5	---	---	---	---
Douglas rabbitbrush	CHVI8	---	---	---	---	---	---	2-5
antelope bitterbrush	PUTR2	---	---	2-5	---	---	---	---
common chokecherry	PRVI	---	---	2-5	---	---	---	---
elderberry	SAMBU	---	---	2-5	---	---	---	---
low sagebrush	ARAR8	10-20	---	---	10-20	---	---	35-45
mountain big sagebrush	ARVA2	---	15-25	---	---	---	---	---
quaking aspen	POTRT	---	---	2-5	---	---	---	---
snowberry	SYMPH	---	5-10	2-10	---	---	---	---

Range site number	023XY017NV	023XY058NV	023XY065NV	023XY031NV	023XY025NV	none	023XY008NV
Potential production (lb/acre):							
Favorable years	900	1300	2600	900	4000		400
Normal years	700	1100	1800	700	3000		250
Unfavorable years	500	800	1400	500	2000		200

923--WALTI-TUSEL-ANAWALT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		WALTI	TUSEL	ANAWALT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	---	5-10	---	---	---	5-15
Idaho fescue	FEID	30-40	2-10	---	---	---	---	10-20
Letterman needlegrass	STLE4	---	2-5	---	---	---	---	---
Nevada bluegrass	PONE3	---	2-5	---	---	---	---	---
Sandberg bluegrass	POSE	2-8	---	5-10	---	---	---	5-15
Thurber needlegrass	STTH2	2-5	---	10-20	5-10	---	---	---
basin wildrye	ELCI2	2-5	---	---	15-25	---	---	---
blue wildrye	ELGL	---	2-5	---	---	---	---	---
bluebunch wheatgrass	AGSP	20-30	2-5	20-50	40-50	---	---	---
bluegrass	POA++	2-8	---	5-10	---	---	5-10	5-15
mannagrass	GLYCE	---	---	---	---	---	5-10	---
meadow barley	HOB2	---	---	---	---	---	5-10	---
mountain brome	BRCA5	---	5-15	---	---	---	---	---
purple oniongrass	MESP	---	2-5	---	---	---	---	---
rush	JUNCU	---	---	---	---	---	5-10	---
sedge	CAREX	---	---	---	---	---	5-10	---
slender wheatgrass	AGTR	---	5-15	---	---	---	---	---
tufted hairgrass	DECE	---	---	---	---	---	30-50	---
carrotleaf lomatium	LODIM	---	2-5	---	---	---	---	---
clover	TRIFO	---	2-5	---	---	---	---	---
geranium	GERAN	---	2-10	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	---	2-5
groundsel	SENEC	---	2-10	---	---	---	---	---
horsemint giant hyssop	AGUR	---	2-5	---	---	---	---	---
Douglas rabbitbrush	CHVI8	---	---	---	---	---	---	2-5
antelope bitterbrush	PUTR2	---	2-5	---	5-10	---	---	---
common chokecherry	PRVI	---	2-5	---	---	---	---	---
elderberry	SAMBU	---	2-5	---	---	---	---	---
low sagebrush	ARAR8	10-20	---	10-20	---	---	---	35-45
mountain big sagebrush	ARVA2	---	---	---	15-25	---	---	---
quaking aspen	POTRT	---	2-5	---	---	---	---	---
snowberry	SYMPH	---	2-10	---	---	---	---	---

Range site number	023XY017NV	023XY065NV	023XY031NV	023XY018NV	none	023XY025NV	023XY008NV
Potential production (lb/acre):							
Favorable years	900	2600	900	1200		4000	400
Normal years	700	1800	700	1000		3000	250
Unfavorable years	500	1400	500	800		2000	200

924--WALTI-TUSK-ALYAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		WALTI	TUSK	ALYAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	2-8	2-5	5-10	---	---	---
Cusick bluegrass	POCU3	---	2-8	---	---	---	---	---
Idaho fescue	FEID	30-40	30-40	---	---	---	---	---
Sandberg bluegrass	POSE	2-8	---	---	5-10	---	---	---
Thurber needlegrass	STTH2	2-5	2-8	2-5	10-20	5-10	---	---
basin wildrye	ELCI2	2-5	5-15	10-20	---	2-10	---	---
bluebunch wheatgrass	AGSP	20-30	15-35	20-40	20-50	50-70	---	---
bluegrass	POA++	2-8	2-8	---	5-10	---	---	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOBR2	---	---	---	---	---	---	5-10
rush	JUNCU	---	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	---	5-10
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
antelope bitterbrush	PUTR2	---	2-10	2-10	---	2-5	---	---
low sagebrush	ARAR8	10-20	---	---	10-20	---	---	---
mountain big sagebrush	ARVA2	---	10-20	5-15	---	5-15	---	---
Range site number		023XY017NV	023XY007NV	023XY041NV	023XY031NV	023XY016NV	none	023XY025NV
Potential production (lb/acre):								
Favorable years		900	1600	1400	900	1500		4000
Normal years		700	1200	1200	700	1100		3000
Unfavorable years		500	900	900	500	800		2000

930--TENABO-OXCOREL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		TENABO	OXCOREL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	2-8	5-15	---
Nevada bluegrass	PONE3	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	10-15	2-8	---
Thurber needlegrass	STH2	---	---	2-5	15-25	---
basin wildrye	ELCI2	---	---	---	---	60-70
bottlebrush squirreltail	SIHY	5-10	5-10	2-8	2-5	---
desert needlegrass	STSP3	---	---	2-10	---	---
mat muhly	MURI	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	2-8
globemallow	SPHAE	---	---	---	1-2	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	5-10
bud sagebrush	ARSP5	20-30	20-30	---	---	---
sagebrush	ARTEM	---	---	30-45	---	---
shadscale	ATCO	30-40	30-40	---	---	---
spiny hopsage	GRSP	2-5	2-5	---	5-15	---
winterfat	EULAS	2-5	2-5	---	---	---

Range site number	024XY002NV	024XY002NV	023XY047NV	024XY020NV	025XY003NV
Potential production (lb/acre):					
Favorable years	750	750	500	700	4500
Normal years	450	450	350	450	3500
Unfavorable years	300	300	200	300	2000

940--SUGHE-SUGHE, VERY STEEP-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SUGHE	SUGHE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	---	25-35	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Thurber needlegrass	STTH2	5-15	5-15	---	5-10	---	---
basin wildrye	ELCI2	2-5	2-5	---	---	---	60-70
bluebunch wheatgrass	AGSP	60-80	60-80	---	---	---	---
mat muhly	MURI	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
globemallow	SPHAE	---	---	---	2-4	---	---
Douglas rabbitbrush	CHVI8	---	---	---	2-5	---	---
Wyoming big sagebrush	ARTRW	5-15	5-15	---	25-35	---	---
antelope bitterbrush	PUTR2	1-5	1-5	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
shadscale	ATCO	---	---	---	2-5	---	---
spiny hopsage	GRSP	---	---	---	2-5	---	---
Range site number		025XY015NV	025XY015NV	none	024XY045NV	none	025XY003NV
Potential production (lb/acre):							
Favorable years		1000	1000		350		4500
Normal years		700	700		200		3500
Unfavorable years		500	500		100		2000

941--SOUGHE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		SOUGHE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	25-35	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-5	---	---	2-5	---
Thurber needlegrass	STTH2	15-25	---	5-10	15-25	---
basin wildrye	ELCI2	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	25-40	---	---	25-40	---
mat muhly	MURI	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	2-8
globemallow	SPHAE	---	---	2-4	---	---
Douglas rabbitbrush	CHV18	---	---	2-5	---	---
Wyoming big sagebrush	ARTRW	15-25	---	25-35	15-25	---
basin big sagebrush	ARTRT	---	---	---	---	5-10
shadscale	ATCO	---	---	2-5	---	---
spiny hopsage	GRSP	---	---	2-5	---	---
Range site number		025XY019NV	none	024XY045NV	025XY019NV	025XY003NV
Potential production (lb/acre):						
Favorable years		800		350	800	4500
Normal years		600		200	600	3500
Unfavorable years		400		100	400	2000

942--SOUGHE-NINEMILE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SOUGHE	NINEMILE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Idaho fescue	FEID	---	30-50	---	---	40-60	30-40
Nevada bluegrass	PONE3	---	---	---	5-10	2-8	2-5
Thurber needlegrass	STH2	5-15	---	---	---	---	---
basin wildrye	ELCI2	2-5	---	---	60-70	2-8	2-10
bluebunch wheatgrass	AGSP	60-80	15-30	---	---	5-15	15-30
bluegrass	POA++	---	2-10	---	---	---	---
mat muhly	MURI	---	---	---	2-8	---	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---	---
arrowleaf balsamroot	BASA3	---	---	---	---	---	2-5
tapertip hawksbeard	CRAC2	---	---	---	---	---	2-5
Wyoming big sagebrush	ARTRW	5-15	---	---	---	---	---
antelope bitterbrush	PUTR2	1-5	2-5	---	---	---	5-10
basin big sagebrush	ARTRT	---	---	---	5-10	10-20	---
low sagebrush	ARAR8	---	15-25	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	10-20
Range site number		025XY015NV	025XY017NV	none	025XY003NV	025XY027NV	025XY012NV
Potential production (lb/acre):							
Favorable years		1000	900		4500	1300	1400
Normal years		700	700		3500	900	1000
Unfavorable years		500	400		2000	500	700

943--SOUGHE-VANWYPER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SOUGHE	VANWYPER	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	---	---	5-15	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-5	---	2-5	---	2-8	---
Thurber needlegrass	STTH2	15-25	5-15	15-25	40-50	15-25	---
basin wildrye	ELCI2	---	2-5	---	---	---	60-70
bluebunch wheatgrass	AGSP	25-40	60-80	25-40	2-10	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	2-5	---
mat muhly	MURI	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
globemallow	SPHAE	---	---	---	1-3	1-2	---
Wyoming big sagebrush	ARTRW	15-25	5-15	15-25	25-35	25-35	---
antelope bitterbrush	PUTR2	---	1-5	---	---	---	---
basin big sagebrush	ARTR2	---	---	---	---	---	5-10
spiny hopsage	GRSP	---	---	---	2-5	5-15	---

Range site number	025XY019NV	025XY015NV	025XY019NV	024XY005NV	024XY020NV	025XY003NV
Potential production (lb/acre):						
Favorable years	800	1000	800	800	700	4500
Normal years	600	700	600	600	450	3500
Unfavorable years	400	500	400	400	300	2000

944--SOUGHE-VANWYPER-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SOUGHE	VANWYPER	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Baltic rush	JUBA	---	---	---	---	---	5-15	---
Canby bluegrass	POCA	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	2-5	---	---
Thurber needlegrass	STTH2	20-30	5-15	---	40-50	15-25	---	40-50
alkali bluegrass	POJU	---	---	---	---	---	30-50	---
alkali sacaton	SPAI	---	---	---	---	---	5-20	---
basin wildrye	ELCI2	---	2-5	---	---	---	---	---
bluebunch wheatgrass	AGSP	20-35	40-60	---	2-10	25-40	---	2-10
bluegrass	POA++	---	2-8	---	---	---	---	---
inland saltgrass	DISPS2	---	---	---	---	---	5-15	---
arrowleaf balsamroot	BASA3	2-5	2-5	---	---	---	---	---
globemallow	SPHAE	---	---	---	1-3	---	---	1-3
tapertip hawksbeard	CRAC2	2-5	2-5	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	15-25	---	25-35
big sagebrush	ARTR2	15- 25	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
spiny hopsage	GRSP	---	---	---	2-5	---	---	2-5
Range site number		024XY035NV	024XY028NV	none	024XY005NV	025XY019NV	024XY043NV	024XY005NV
Potential production (lb/acre):								
Favorable years		500	1000		800	800	3000	800
Normal years		400	700		600	600	2000	600
Unfavorable years		250	500		400	400	1000	400

946--SOUGHE-RUBBLE LAND COMPLEX, 30 TO 75 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SOUGHE	RUBBLE LAND	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Idaho fescue	FEID	---	---	---	15-25	---	20-40
Nevada bluegrass	PONE3	---	---	---	---	5-10	---
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegrass	STTH2	20-30	---	20-30	---	---	2-8
Webber ricegrass	STWE	---	---	---	2-5	---	---
alpine timothy	PHAL2	---	---	---	---	5-10	---
basin wildrye	ELCI2	---	---	2-5	---	---	2-15
bluebunch wheatgrass	AGSP	20-35	---	30-40	2-5	---	20-40
bluegrass	POA++	---	---	2-8	5-10	---	---
pine bluegrass	POSC	---	---	---	---	---	---
sedge	CAREX	---	---	---	---	5-10	---
tufted hairgrass	DECE	---	---	---	---	30-60	---
Sierra clover	TRWO	---	---	---	---	2-5	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	1-5
cinquefoil	POTEN	---	---	---	---	2-5	---
goldenweed	HAPLO2	---	---	---	2-5	---	---
helianthella	HELIA	---	---	---	---	---	1-2
tapertip hawkbeard	CRAC2	2-5	---	---	---	---	1-5
white stoneseed	LIRU4	---	---	---	---	---	1-2
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	15- 25	---	10-15	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	15-25
sagebrush	ARTEM	---	---	---	25-40	---	---

Range site number	024XY035NV	none	024XY013NV	024XY016NV	025XY005NV	024XY021NV
Potential production (lb/acre):						
Favorable years	500		1000	350	3000	1400
Normal years	400		800	250	1700	1000
Unfavorable years	250		600	150	1000	700

947--SOUGHE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SOUGHE	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Indian ricegrass	ORHY	---	---	---	2-5	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Thurber needlegress	STTH2	40-50	20-30	---	---	20-30	---
basin wildrye	ELCI2	---	---	---	---	2-5	60-70
bluebunch wheatgrass	AGSP	2-10	20-35	---	---	30-40	---
bluegrass	POA++	---	---	---	---	2-8	---
bottlebrush squirreltail	SIHY	---	---	---	2-10	---	---
desert needlegress	STSP3	---	---	---	2-10	---	---
mat muhly	MURI	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	2-5	---	---	---	---
globemallow	SPAE	1-3	---	---	---	---	---
tapertip hawksbeard	CRAC2	---	2-5	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	15- 25	---	---	10-15	---
bud sagebrush	ARSP5	---	---	---	15-30	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
shadscale	ATCO	---	---	---	30-50	---	---
spiny hopsage	GRSP	2-5	---	---	---	---	---

Range site number	024XY005NV	024XY035NV	none	024XY025NV	024XY013NV	025XY003NV
Potential production (lb/acre):						
Favorable years	800	500		250	1000	4500
Normal years	600	400		150	800	3500
Unfavorable years	400	250		75	600	2000

954--PUFFER-XINE-ROCK OUTCROP ASSOCIATION

[An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absense of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		PUFFER	XINE	ROCK OUTCROP	Inclusion 1	Inclusion 2
Cusick bluegrass	POCU3	---	---	---	5-15	---
Idaho fescue	FEID	---	20-40	---	30-60	---
Indian ricegrass	ORHY	5-15	---	---	---	X
Thurber needlegrass	STTH2	15-30	2-8	---	---	X
basin wildrye	ELCI2	---	2-15	---	---	---
bluebunch wheatgrass	AGSP	---	20-40	---	2-10	X
bluegrass	POA++	---	---	---	---	X
arrowleaf balsamroot	BASA3	---	1-5	---	---	---
globemallow	SPHAE	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	X
helianthella	HELIA	---	1-2	---	---	---
phlox	PHLOX	---	---	---	---	X
tapertip hawksbeard	CRAC2	---	1-5	---	2-5	---
white stoneseed	LIRU4	---	1-2	---	---	---
black sagebrush	ARARN	25-35	---	---	25-35	X
downy rabbitbrush	CHVIP4	---	---	---	---	X
mountain big sagebrush	ARVA2	---	15-25	---	---	---
Utah juniper	JUOS	---	---	---	---	X

Range site number	024XY030NV	024XY021NV	none	024XY042NV	025XY060NV
Potential production (lb/acre):					
Favorable years	500	1400		1000	400
Normal years	350	1000		800	275
Unfavorable years	250	700		500	150

955--PUFFER-SOUGHE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		PUFFER	SOUGHE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Indian ricegrass	ORHY	5-15	---	---	---	---	25-35	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	2-5	---	---	---	---	---
Thurber needlegrass	STTH2	15-30	15-25	---	5-15	40-50	5-10	10-20
basin wildrye	ELCI2	---	---	---	2-5	---	---	2-8
bluebunch wheatgrass	AGSP	---	25-40	---	40-60	2-10	---	20-35
bluegrass	POA++	---	---	---	2-8	---	---	2-10
arrowleaf balsamroot	BASA3	---	---	---	2-5	---	---	---
globemallow	SPHAE	2-5	---	---	---	1-3	2-4	---
tapertip hawkbeard	CRAC2	---	---	---	2-5	---	---	---
Douglas rabbitbrush	CHVIB	---	---	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	---	15-25	---	---	25-35	25-35	---
antelope bitterbrush	PUTR2	---	---	---	---	---	---	2-8
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	15-25	---	---	10-15
black sagebrush	ARARN	25-35	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
shadscale	ATCO	---	---	---	---	---	2-5	---
spiny hopsage	GRSP	---	---	---	---	2-5	2-5	---
Range site number		024XY030NV	025XY019NV	none	024XY028NV	024XY005NV	024XY045NV	025XY014NV
Potential production (lb/acre):								
Favorable years		500	800		1000	800	350	1000
Normal years		350	600		700	600	200	800
Unfavorable years		250	400		500	400	100	600

960--ZEVADZ-WIELAND-KELK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		ZEVADZ	WIELAND	KELK	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	---	---	---	5-15	---
Sandberg bluegrass	POSE	2-5	2-5	2-5	---	2-5
Thurber needlegrass	STTH2	15-25	15-25	15-25	---	15-25
bluebunch wheatgrass	AGSP	25-40	25-40	25-40	---	25-40
mat muhly	MURI	---	---	---	20-30	---
povertyweed	IVAX	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	15-25	15-25	15-25	---	15-25
mountain silver sagebrush	ARCAV	---	---	---	50-65	---
Range site number		025XY019NV	025XY019NV	025XY019NV	025XY048NV	025XY019NV
Potential production (lb/acre):						
Favorable years		800	800	800	350	800
Normal years		600	600	600	250	600
Unfavorable years		400	400	400	150	400

962--ZEVADEZ-VANWYPER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ZEVADEZ	VANWYPER	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Thurber needlegrass	STH2	40-50	40-50	40-50	10-20	40-50	---
basin wildrye	ELCI2	---	---	---	2-8	---	60-70
bluebunch wheatgrass	AGSP	2-10	2-10	2-10	20-35	2-10	---
bluegrass	POA++	---	---	---	2-10	---	---
mat muhly	MURI	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
globemallow	SPHAE	1-3	1-3	1-3	---	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	25-35	---
antelope bitterbrush	PUTR2	---	---	---	2-8	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	---	10-15	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
spiny hopsage	GRSP	2-5	2-5	2-5	---	2-5	---
Range site number		024XY005NV	024XY005NV	024XY005NV	025XY014NV	024XY005NV	025XY003NV
Potential production (lb/acre):							
Favorable years		800	800	800	1000	800	4500
Normal years		600	600	600	800	600	3500
Unfavorable years		400	400	400	600	400	2000

963--ZEVADEZ-MCCONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		ZEVADEZ	MCCONNEL	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	5-15	---	2-5
Nevada bluegrass	PONE3	---	---	5-10	---
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STH2	40-50	15-25	---	---
basin wildrye	ELCI2	---	---	60-70	5-20
bluebunch wheatgrass	AGSP	2-10	---	---	---
bottlebrush squirreltail	SIHY	---	2-5	---	2-5
mat muhly	MURI	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	2-8	---
globemallow	SPHAE	1-3	1-2	---	1-2
thelypody	THELY	---	---	---	2-4
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	5-10	---
big sagebrush	ARTR2	---	---	---	10-25
black greasewood	SAVE4	---	---	---	20-30
spiny hopsage	GRSP	2-5	5-15	---	5-15
Range site number		024XY005NV	024XY020NV	025XY003NV	024XY022NV
Potential production (lb/acre):					
Favorable years		800	700	4500	800
Normal years		600	450	3500	600
Unfavorable years		400	300	2000	350

964--ZEVADEZ LOAM, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		ZEVADEZ	Inclusion 1	Inclusion 2
Thurber needlegrass	STTH2	40-50	---	---
basin wildrye	ELCI2	---	55-65	55-65
bluebunch wheatgrass	AGSP	2-10	---	---
creeping wildrye	ELTR3	---	5-15	5-15
western wheatgrass	AGSM	---	5-15	5-15
globemallow	SPHAE	1-3	---	---
Wyoming big sagebrush	ARTRW	25-35	---	---
basin big sagebrush	ARTRT	---	10-15	10-15
black greasewood	SAVE4	---	2-8	2-8
spiny hopsage	GRSP	2-5	---	---
Range site number		024XY005NV	024XY006NV	024XY006NV
Potential production (lb/acre):				
Favorable years		800	1500	1500
Normal years		600	1100	1100
Unfavorable years		400	600	600

970--GOSUMI-WALTI ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		GOSUMI	WALTI	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Idaho fescue	FEID	20-40	20-40	---	---	20-40	15-25
Nevada bluegrass	PONE3	---	---	5-10	40-60	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegrass	STTH2	2-8	2-8	---	---	2-8	---
Webber ricegrass	STWE	---	---	---	---	---	2-5
alpine timothy	PHAL2	---	---	---	20-40	---	---
basin wildrye	ELCI2	---	---	60-70	2-8	2-15	---
bluebunch wheatgrass	AGSP	10-20	10-20	---	---	20-40	2-5
bluegrass	POA++	2-8	2-8	---	---	---	5-10
mat muhly	MURI	---	---	2-8	2-8	---	---
meadow barley	HOBR2	---	---	---	2-5	---	---
pine bluegrass	POSC	---	---	---	---	---	---
sedge	CAREX	---	---	---	2-8	---	---
streambank wheatgrass	AGDAR	---	---	2-8	---	---	---
arrowleaf balsamroot	BASA3	---	---	---	---	1-5	---
goldenweed	HAPLO2	---	---	---	---	---	2-5
helianthella	HELIA	---	---	---	---	1-2	---
tapertip hawksbeard	CRAC2	---	---	---	---	1-5	---
white stoneseed	LIRU4	---	---	---	---	1-2	---
basin big sagebrush	ARTRT	---	---	5-10	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---
low sagebrush	ARAR8	20-30	20-30	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	15-25	---
sagebrush	ARTEM	---	---	---	---	---	25-40

Range site number	024XY027NV	024XY027NV	025XY003NV	025XY006NV	024XY021NV	024XY016NV
Potential production (lb/acre):						
Favorable years	1200	1200	4500	2000	1400	350
Normal years	800	800	3500	1300	1000	250
Unfavorable years	600	600	2000	800	700	150

980--SNOWMORE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		SNOWMORE	SNOWMORE	Inclusion 1	Inclusion 2	Inclusion 3
Sandberg bluegrass	POSE	2-5	2-5	2-5	2-5	---
Thurber needlegrass	STH2	15-25	15-25	15-25	15-25	---
bluebunch wheatgrass	AGSP	25-40	25-40	25-40	25-40	---
Wyoming big sagebrush	ARTRW	15-25	15-25	15-25	15-25	---
Range site number		025XY019NV	025XY019NV	025XY019NV	025XY019NV	none
Potential production (lb/acre):						
Favorable years		800	800	800	800	
Normal years		600	600	600	600	
Unfavorable years		400	400	400	400	

981--SNOWMORE-ZEVADEZ ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		SNOWMORE	ZEVADEZ	SNOWMORE	Inclusion 1
Sandberg bluegrass	POSE	2-5	2-5	2-5	2-5
Thurber needlegrass	STTH2	15-25	15-25	15-25	15-25
bluebunch wheatgrass	AGSP	25-40	25-40	25-40	25-40
Wyoming big sagebrush	ARTRW	15-25	15-25	15-25	15-25
Range site number		025XY019NV	025XY019NV	025XY019NV	025XY019NV
Potential production (lb/acre):					
Favorable years		800	800	800	800
Normal years		600	600	600	600
Unfavorable years		400	400	400	400

983--SNOWMORE-DEVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		SNOWMORE	DEVADA	Inclusion 1	Inclusion 2	Inclusion 3
Sandberg bluegrass	POSE	2-5	2-10	---	2-8	---
Thurber needlegrass	STTH2	15-25	10-20	40-50	15-30	5-15
Webber ricegrass	STWE	---	5-10	---	2-8	---
basin wildrye	ELCI2	---	---	---	---	2-5
bluebunch wheatgrass	AGSP	25-40	20-30	2-10	20-40	60-80
balsamroot	BALSA	---	2-5	---	---	---
globemallow	SPHAE	---	---	1-3	---	---
Wyoming big sagebrush	ARTRW	15-25	---	25-35	---	5-15
antelope bitterbrush	PUTR2	---	---	---	---	1-5
early sagebrush	ARLO9	---	---	---	---	---
low sagebrush	ARAR8	---	25-35	---	---	---
sagebrush	ARTEM	---	---	---	20-30	---
spiny hopsage	GRSP	---	---	2-5	---	---
Range site number		025XY019NV	025XY022NV	024XY005NV	025XY018NV	025XY015NV
Potential production (lb/acre):						
Favorable years		800	600	800	800	1000
Normal years		600	400	600	600	700
Unfavorable years		400	250	400	400	500

984--SNOWMORE-VANWYPER-DEVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SNOWMORE	VANWYPER	DEVADA	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-5	---	2-8	---	---	---
Thurber needlegrass	STTH2	15-25	5-15	15-30	---	40-50	---
Webber ricegrass	STWE	---	---	2-8	---	---	---
basin wildrye	ELCI2	---	2-5	---	---	---	60-70
bluebunch wheatgrass	AGSP	25-40	60-80	20-40	---	2-10	---
mat muhly	MURI	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
globemallow	SPHAE	---	---	---	---	1-3	---
Wyoming big sagebrush	ARTRW	15-25	5-15	---	---	25-35	---
antelope bitterbrush	PUTR2	---	1-5	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
early sagebrush	ARLOS	---	---	---	---	---	---
low sagebrush	ARARS	---	---	---	---	---	---
sagebrush	ARTEM	---	---	20-30	---	---	---
spiny hopsage	GRSP	---	---	---	---	2-5	---
Range site number		025XY019NV	025XY015NV	025XY018NV	none	024XY005NV	025XY003NV
Potential production (lb/acre):							
Favorable years		800	1000	800		800	4500
Normal years		600	700	600		600	3500
Unfavorable years		400	500	400		400	2000

990--PLAYAS

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions	
		Soil name or Inclusion number--	
		PLAYAS	VANWYPER
basin wildrye	ELCI2	---	5-15
inland saltgrass	DISPS2	---	5-10
black greasewood	SAVE4	---	60-75
Range site number		none	024XY011NV
Potential production (lb/acre):			
Favorable years			500
Normal years			350
Unfavorable years			200

994--DUNE LAND

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		DUNE LAND	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	15-30	30-40
basin wildrye	ELCI2	---	5-10	2-8
needleandthread	STCO4	---	30-40	5-15
thickspike wheatgrass	AGDA	---	---	5-10
canadagre	RUHY	---	---	1-3
lemon scurfpea	PSLA	---	---	1-3
tufted eveningprimrose	OECE2	---	---	1-3
Wyoming big sagebrush	ARTRW	---	---	---
basin big sagebrush	ARTRT	---	---	25-30
big sagebrush	ARTR2	---	15-25	---
fourwing saltbush	ATCA2	---	---	2-8
spiny hopsage	GRSP	---	1-5	2-8
Range site number		none	024XY017NV	024XY001NV
Potential production (lb/acre):				
Favorable years			900	800
Normal years			700	500
Unfavorable years			500	300

995--DUNE LAND-GOLDRUN-DAVEY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DUNE LAND	GOLDRUN	DAVEY	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	30-40	15-30	5-15	5-15
Sandberg bluegrass	POSE	---	---	---	2-8	2-8
Thurber needlegrass	STTH2	---	---	---	15-25	15-25
basin wildrye	ELCI2	---	2-8	5-10	---	---
bottlebrush squirreltail	SIHY	---	---	---	2-5	2-5
needleandthread	STCO4	---	5-15	30-40	---	---
thickspike wheatgrass	AGDA	---	5-10	---	---	---
canaigre	RUHY	---	1-3	---	---	---
globemallow	SPHAE	---	---	---	1-2	1-2
lemon scurfpea	PSLA	---	1-3	---	---	---
tufted eveningprimrose	OECE2	---	1-3	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	25-35
basin big sagebrush	ARTRT	---	25-30	---	---	---
big sagebrush	ARTR2	---	---	15-25	---	---
fourwing saltbush	ATCA2	---	2-8	---	---	---
spiny hopsage	GRSP	---	2-8	1-5	5-15	5-15
Range site number		none	024XY001NV	024XY017NV	024XY020NV	024XY020NV
Potential production (lb/acre):						
Favorable years			800	900	700	700
Normal years			500	700	450	450
Unfavorable years			300	500	300	300

998--DUMPS-PITS COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		DUMPS	PITS	Inclusion 1

Range site number	none	none	none
Potential production (lb/acre):			
Favorable years			
Normal years			
Unfavorable years			

999--SLICKENS

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		SLICKENS	Inclusion 1	Inclusion 2	Inclusion 3
Sandberg bluegrass	POSE	---	---	2-5	---
Thurber needlegrass	STTH2	---	40-50	15-25	---
basin wildrye	ELCI2	---	---	---	55-65
bluebunch wheatgrass	AGSP	---	2-10	25-40	---
creeping wildrye	ELTR3	---	---	---	5-15
western wheatgrass	AGSM	---	---	---	5-15
globemallow	SPHAE	---	1-3	---	---
Wyoming big sagebrush	ARTRW	---	25-35	15-25	---
basin big sagebrush	ARTRT	---	---	---	10-15
black greasewood	SAVE4	---	---	---	2-8
spiny hopsage	GRSP	---	2-5	---	---
Range site number		none	024XY005NV	025XY019NV	024XY006NV
Potential production (lb/acre):					
Favorable years			800	800	1500
Normal years			600	600	1100
Unfavorable years			400	400	600

1004--SOUGHE-DAVEY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		SOUGHE	DAVEY	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	15-30	30-40	2-5
Sandberg bluegrass	POSE	2-8	---	---	---
Thurber needlegrass	STH2	15-25	---	---	---
basin wildrye	ELCI2	---	5-10	2-8	---
bottlebrush squirreltail	SIHY	2-5	---	---	2-10
desert needlegrass	STSP3	---	---	---	2-10
needleandthread	STCO4	---	30-40	5-15	---
thickspike wheatgrass	AGDA	---	---	5-10	---
canaigre	RUHY	---	---	1-3	---
globemallow	SPHAE	1-2	---	---	---
lemon scurfpea	PSLA	---	---	1-3	---
tufted eveningprimrose	OECE2	---	---	1-3	---
Wyoming big sagebrush	ARTRW	25-35	---	---	---
basin big sagebrush	ARTRT	---	---	25-30	---
big sagebrush	ARTR2	---	15-25	---	---
bud sagebrush	ARSP5	---	---	---	15-30
fourwing saltbush	ATCA2	---	---	2-8	---
shadscale	ATCO	---	---	---	30-50
spiny hopsage	GRSP	5-15	1-5	2-8	---

Range site number	024XY020NV	024XY017NV	024XY001NV	024XY025NV
Potential production (lb/acre):				
Favorable years	700	900	800	250
Normal years	450	700	500	150
Unfavorable years	300	500	300	75

1005--SOUGHE-FLUE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SOUGHE	FLUE	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	---	---	---	---
Sandberg bluegrass	POSE	2-8	2-8	---	---	---	---
Thurber needlegrass	STTH2	15-25	15-25	40-50	40-50	---	---
basin wildrye	ELCI2	---	---	---	---	---	55-65
bluebunch wheatgrass	AGSP	---	---	2-10	2-10	---	---
bottlebrush squirreltail	SIHY	2-5	2-5	---	---	---	5-15
creeping wildrye	ELTR3	---	---	---	---	---	5-15
western wheatgrass	AGSM	---	---	---	---	---	---
globemallow	SPHAE	1-2	1-2	1-3	1-3	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	10-15
black greasewood	SAVE4	---	---	---	---	---	2-8
spiny hopsage	GRSP	5-15	5-15	2-5	2-5	---	---
Range site number		024XY020NV	024XY020NV	024XY005NV	024XY005NV	none	024XY006NV
Potential production (lb/acre):							
Favorable years		700	700	800	800		1500
Normal years		450	450	600	600		1100
Unfavorable years		300	300	400	400		600

1007--SOGHE-PUETT-BURRITA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SOGHE	PUETT	BURRITA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Indian ricegrass	ORHY	---	25-35	---	---	15-30	5-15	10-15
Thurber needlegrass	STTH2	40-50	5-10	40-50	20-30	---	15-30	2-10
basin wildrye	ELCI2	---	---	---	2-5	2-8	---	---
bluebunch wheatgrass	AGSP	2-10	---	2-10	30-40	---	---	---
bluegrass	POA++	---	---	---	2-8	---	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	5-10	---	2-5
needleandthread	STCO4	---	---	---	---	---	---	15-25
globemallow	SPHA2	1-3	2-4	1-3	---	---	2-5	---
Douglas rabbitbrush	CHV18	---	2-5	---	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	15-30	---	---
antelope bitterbrush	PUTR2	---	---	---	---	2-8	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	10-15	---	---	25-35
black sagebrush	ARARN	---	---	---	---	10-20	25-35	---
horsebrush	TETRA3	---	---	---	---	---	---	2-5
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
shadscale	ATCO	---	2-5	---	---	---	---	---
spiny hopsage	GRSP	2-5	2-5	2-5	---	2-5	---	---

Range site number	024XY005NV	024XY045NV	024XY005NV	024XY013NV	025XY025NV	024XY030NV	024XY058NV
Potential production (lb/acre):							
Favorable years	800	350	800	1000	500	500	1300
Normal years	600	200	600	800	350	350	1000
Unfavorable years	400	100	400	600	200	250	700

1010--BARTOME-CHIARA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		BARTOME	CHIARA	Inclusion 1	Inclusion 2	Inclusion 3
Sandberg bluegrass	POSE	2-5	2-5	2-5	2-10	2-5
Thurber needlegrass	STTH2	15-25	15-25	15-25	10-20	15-25
Webber ricegrass	STWE	---	---	---	5-10	---
bluebunch wheatgrass	AGSP	25-40	25-40	25-40	20-30	25-40
balsamroot	BALSA	---	---	---	2-5	---
Wyoming big sagebrush	ARTRW	15-25	15-25	15-25	---	15-25
low sagebrush	ARAR8	---	---	---	25-35	---
Range site number		025XY019NV	025XY019NV	025XY019NV	025XY022NV	025XY019NV
Potential production (lb/acre):						
Favorable years		800	800	800	600	800
Normal years		600	600	600	400	600
Unfavorable years		400	400	400	250	400

1020--WHOLAN VERY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		WHOLAN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	5-15
Sandberg bluegrass	POSE	---	---	2-8
Thurber needlegrass	STH2	---	---	15-25
bottlebrush squirreltail	SIHY	5-10	5-10	2-5
globemallow	SPHAE	---	---	1-2
Wyoming big sagebrush	ARTRW	---	---	25-35
bud sagebrush	ARSP5	20-30	20-30	---
shadscale	ATCO	30-40	30-40	---
spiny hopsage	GRSP	2-5	2-5	5-15
winterfat	EULA5	2-5	2-5	---

Range site number	024XY002NV	024XY002NV	024XY020NV
Potential production (lb/acre):			
Favorable years	750	750	700
Normal years	450	450	450
Unfavorable years	300	300	300

1023--WHOLAN-BLISS-ENKO ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		WHOLAN	BLISS	ENKO	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	15-25	---	---	20-40	5-15	5-15
Sandberg bluegrass	POSE	---	---	---	---	---	2-8
Thurber needlegrass	STH2	---	40-50	40-50	---	---	15-25
bluebunch wheatgrass	AGSP	---	2-10	2-10	---	---	---
bottlebrush squirreltail	SIHY	2-8	---	---	2-10	5-10	2-5
globemallow	SPHAE	---	1-3	1-3	---	---	1-2
Wyoming big sagebrush	ARTRW	---	25-35	25-35	---	---	25-35
bud sagebrush	ARSP5	2-5	---	---	15-30	20-30	---
shadscale	ATCO	---	---	---	2-8	30-40	---
spiny hopsage	GRSP	---	2-5	2-5	---	2-5	5-15
winterfat	EULAS	60-70	---	---	30-40	2-5	---
Range site number		024XY004NV	024XY005NV	024XY005NV	024XY014NV	024XY002NV	024XY020NV
Potential production (lb/acre):							
Favorable years		500	800	800	700	750	700
Normal years		350	600	600	500	450	450
Unfavorable years		200	400	400	200	300	300

1025--WHOLAN SILT LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		WHOLAN	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	15-25	15-30	5-15	5-15
basin wildrye	ELCI2	---	5-10	---	---
bottlebrush squirreltail	SIHY	2-8	---	5-10	5-10
needleandthread	STCO4	---	30-40	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	15-25	---	---
bud sagebrush	ARSP5	2-5	---	20-30	20-30
shadscale	ATCO	---	---	30-40	30-40
spiny hopsage	GRSP	---	1-5	2-5	2-5
winterfat	EULA5	60-70	---	2-5	2-5

Range site number	024XY004NV	024XY017NV	024XY002NV	024XY002NV
Potential production (lb/acre):				
Favorable years	500	900	750	750
Normal years	350	700	450	450
Unfavorable years	200	500	300	300

1030--BULLUMP-WESTBUTTE-HARCANY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BULLUMP	WESTBUTTE	HARCANY	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	5-10	---	5-10	5-15	---	---	---
Columbia needlegrass	STNE3	10-20	---	10-20	---	---	---	---
Cusick bluegrass	POCU3	---	5-10	---	---	---	---	---
Idaho fescue	FEID	2-5	30-50	2-5	10-20	---	---	---
Letterman needlegrass	STLE4	---	2-5	---	---	---	---	---
Nevada bluegrass	PONE3	5-10	---	5-10	---	---	2-5	---
Sandberg bluegrass	POSE	---	---	---	5-15	---	---	---
Thurber needlegrass	STTH2	---	---	---	---	5-10	---	---
basin wildrye	ELCI2	5-10	---	5-10	---	2-10	40-60	---
bluebunch wheatgrass	AGSP	---	2-5	---	---	50-70	---	---
bluegrass	POA++	5-10	---	5-10	5-15	---	---	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOBR2	---	---	---	---	---	---	5-10
mountain brome	BRCA5	20-40	---	20-40	---	---	---	---
needlegrass	STIPA	10-20	---	10-20	---	---	---	5-10
rush	JUNCU	---	---	---	---	---	2-5	5-10
sedge	CAREX	---	---	---	---	---	5-15	---
slender wheatgrass	AGTR	---	---	---	---	---	5-15	---
streambank wheatgrass	AGDAR	---	---	---	---	---	5-15	---
thickspike wheatgrass	AGDA	---	---	---	---	---	5-15	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
western needlegrass	STOC2	10-20	---	10-20	---	---	---	---
wheatgrass	AGROP2	---	---	---	---	---	5-15	---
arrowleaf balsamroot	BASA3	---	1-3	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---	---
lupine	LUPIN	---	---	---	---	---	2-5	---
tapertip hawksbeard	CRAC2	---	1-3	---	---	---	---	---
Douglas rabbitbrush	CHVI8	---	---	---	2-5	---	---	---
antelope bitterbrush	PUTR2	---	---	---	---	2-5	---	---
low sagebrush	ARAR8	---	---	---	35-45	---	---	---
mountain big sagebrush	ARVA2	10-20	---	10-20	---	5-15	15-25	---
snowberry	SYMPH	2-5	2-5	2-5	---	---	---	---
threetip sagebrush	ARTR4	---	15-25	---	---	---	---	---

Range site number	023XY019NV	023XY053NV	023XY019NV	023XY008NV	023XY016NV	023XY056NV	023XY025NV
Potential production (lb/acre):							
Favorable years	2200	1000	2200	400	1500	2200	4000
Normal years	1800	800	1800	250	1100	1700	3000
Unfavorable years	1500	600	1500	200	800	1200	2000

1031--BULLUMP-SUMINE-CLEAVAGE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		BULLUMP	SUMINE	CLEAVAGE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	5-10	---	5-15	2-8	5-10	---	---
Columbia needlegrass	STNE3	10-20	---	---	---	10-20	---	---
Cusick bluegrass	POCU3	---	---	---	2-8	---	---	---
Idaho fescue	FEID	2-5	---	10-20	30-40	2-5	---	---
Nevada bluegrass	PONE3	5-10	---	---	---	5-10	---	---
Sandberg bluegrass	POSE	---	---	5-15	---	---	---	---
Thurber needlegrass	STTH2	---	5-10	---	2-8	---	---	---
basin wildrye	ELCI2	5-10	2-10	---	5-15	5-10	---	---
bluebunch wheatgrass	AGSP	---	50-70	---	15-35	---	---	---
bluegrass	POA++	5-10	---	5-15	2-8	5-10	---	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOBR2	---	---	---	---	---	---	5-10
mountain brome	BRCA5	20-40	---	---	---	20-40	---	---
needlegrass	STIPA	10-20	---	---	---	10-20	---	---
rush	JUNCU	---	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	---	5-10
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
western needlegrass	STOC2	10-20	---	---	---	10-20	---	---
goldenweed	HAPLO2	---	---	2-5	---	---	---	---
Douglas rabbitbrush	CHVI8	---	---	2-5	---	---	---	---
antelope bitterbrush	PUTR2	---	2-5	---	2-10	---	---	---
low sagebrush	ARAR8	---	---	35-45	---	---	---	---
mountain big sagebrush	ARVA2	10-20	5-15	---	10-20	10-20	---	---
snowberry	SYMPH	2-5	---	---	---	2-5	---	---

Range site number	023XY019NV	023XY016NV	023XY008NV	023XY007NV	023XY019NV	none	023XY025NV
Potential production (lb/acre):							
Favorable years	2200	1500	400	1600	2200		4000
Normal years	1800	1100	250	1200	1800		3000
Unfavorable years	1500	800	200	900	1500		2000

1050--ARGENTA FINE SANDY LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		ARGENTA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Nevada bluegrass	PONE3	---	5-15	---	---	---
alkali bluegrass	POJU	---	---	---	5-15	---
alkali cordgrass	SPGR	---	---	---	5-10	---
alkali muhly	MUAS	---	---	---	10-20	---
alkali sacaton	SPAI	---	---	5-15	15-40	---
basin wildrye	ELCI2	5-15	---	50-60	2-5	---
creeping wildrye	ELTR3	---	---	---	---	---
inland saltgrass	DISPS2	5-10	2-5	2-8	5-10	60-90
mat muhly	MURI	---	2-5	---	---	---
sedge	CAREX	---	2-10	---	---	---
wildrye	ELYMU	---	60-80	---	---	---
arrowgrass	TRIGL	---	---	---	1-3	---
other perennial forbs	PPFF	---	---	---	---	1-2
black greasewood	SAVE4	60-75	---	5-15	---	---
rubber rabbitbrush	CHNA2	---	---	2-5	---	---
willow	SALIX	---	5-10	---	---	---
Range site number		024XY011NV	025XY001NV	024XY007NV	024XY009NV	026XY002NV
Potential production (lb/acre):						
Favorable years		500	3500	1900	1500	2000
Normal years		350	2500	1400	1000	1700
Unfavorable years		200	1800	800	700	1200

1051--ARGENTA-PREBLE COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

		Percentage composition and production (dry weight) of plants on major soils and inclusions				
Common plant name	Plant symbol	Soil name or Inclusion number--				
		ARGENTA	PREBLE	Inclusion 1	Inclusion 2	Inclusion 3
alkali sacaton	SPAI	---	---	5-15	---	---
basin wildrye	ELCI2	5-15	5-15	50-60	---	---
bottlebrush squirreltail	SIHY	---	---	---	5-10	---
inland saltgrass	DISPS2	5-10	5-10	2-8	---	---
black greasewood	SAVE4	60-75	60-75	5-15	15-30	---
bud sagebrush	ARSP5	---	---	---	2-8	---
rubber rabbitbrush	CHNA2	---	---	2-5	---	---
seepweed	SUAED	---	---	---	2-8	---
shadscale	ATCO	---	---	---	30-50	---
Range site number		024XY011NV	024XY011NV	024XY007NV	024XY003NV	none
Potential production (lb/acre):						
Favorable years		500	500	1900	600	
Normal years		350	350	1400	450	
Unfavorable years		200	200	800	300	

1052--ARGENTA, RARELY FLOODED-PREBLE COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		ARGENTA	PREBLE	Inclusion 1	Inclusion 2
alkali sacaton	SPAI	5-15	---	---	---
basin wildrye	ELCI2	50-60	5-15	---	55-65
bottlebrush squirreltail	SIHY	---	---	5-10	---
creeping wildrye	ELTR3	---	---	---	5-15
inland saltgrass	DISPS2	2-8	5-10	---	---
western wheatgrass	AGSM	---	---	---	5-15
basin big sagebrush	ARTRT	---	---	---	10-15
black greasewood	SAVE4	5-15	60-75	15-30	2-8
bud sagebrush	ARSP5	---	---	2-8	---
rubber rabbitbrush	CHNA2	2-5	---	---	---
seepweed	SUAED	---	---	2-8	---
shadescale	ATCO	---	---	30-50	---
Range site number		024XY007NV	024XY011NV	024XY003NV	024XY006NV
Potential production (lb/acre):					
Favorable years		1900	500	600	1500
Normal years		1400	350	450	1100
Unfavorable years		800	200	300	600

1055--ARGENTA SILT LOAM, RARELY FLOODED

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		ARGENTA	Inclusion 1	Inclusion 2
alkali sacaton	SPAI	5-15	---	---
basin wildrye	ELCI2	50-60	55-65	5-15
creeping wildrye	ELTR3	---	5-15	---
inland saltgrass	DISPS2	2-8	---	5-10
western wheatgrass	AGSM	---	5-15	---
basin big sagebrush	ARTRT	---	10-15	---
black greasewood	SAVE4	5-15	2-8	60-75
rubber rabbitbrush	CHNA2	2-5	---	---
Range site number		024XY007NV	024XY006NV	024XY011NV
Potential production (lb/acre):				
Favorable years		1900	1500	500
Normal years		1400	1100	350
Unfavorable years		800	600	200

1060--PARANAT SILTY CLAY LOAM, DRAINED

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		PARANAT	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	---	5-15
alkali sacaton	SPAI	5-15	5-15	5-15	---
basin wildrye	ELCI2	50-60	50-60	50-60	---
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	2-8	2-8	2-8	2-5
mat muhly	MURI	---	---	---	2-5
sedge	CAREX	---	---	---	2-10
wildrye	ELYMU	---	---	---	60-80
black greasewood	SAVE4	5-15	5-15	5-15	---
rubber rabbitbrush	CHNA2	2-5	2-5	2-5	---
willow	SALIX	---	---	---	5-10
Range site number		024XY007NV	024XY007NV	024XY007NV	025XY001NV
Potential production (lb/acre):					
Favorable years		1900	1900	1900	3500
Normal years		1400	1400	1400	2500
Unfavorable years		800	800	800	1800

1061--PARAMAT SILT LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		PARAMAT	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	5-15	---	---	---
alkali bluegrass	POJU	---	---	5-15	---
alkali cordgrass	SPGR	---	---	5-10	---
alkali muhly	MUAS	---	---	10-20	---
alkali sacaton	SPAI	---	5-15	15-40	---
basin wildrye	ELCI2	---	50-60	2-5	5-15
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	2-5	2-8	5-10	5-10
mat muhly	MURI	2-5	---	---	---
sedge	CAREX	2-10	---	---	---
wildrye	ELYMU	60-80	---	---	---
arrowgrass	TRIGL	---	---	1-3	---
black greasewood	SAVE4	---	5-15	---	60-75
rubber rabbitbrush	CHNA2	---	2-5	---	---
willow	SALIX	5-10	---	---	---

Range site number	025XY001NV	024XY007NV	024XY009NV	024XY011NV
Potential production (lb/acre):				
Favorable years	3500	1900	1500	500
Normal years	2500	1400	1000	350
Unfavorable years	1800	800	700	200

1064--PARAMAT COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		PARAMAT	PARAMAT	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-15	---	---	5-15
alkali bluegrass	POJU	---	5-15	---	---
alkali cordgrass	SPGR	---	5-10	---	---
alkali muhly	MUAS	---	10-20	---	---
alkali sacaton	SPAI	---	15-40	---	---
basin wildrye	ELCI2	---	2-5	5-15	---
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	2-5	5-10	5-10	2-5
mat muhly	MURI	2-5	---	---	2-5
sedge	CAREX	2-10	---	---	2-10
wildrye	ELYMU	60-80	---	---	60-80
arrowgrass	TRIGL	---	1-3	---	---
black greasewood	SAVE4	---	---	60-75	---
willow	SALIX	5-10	---	---	5-10
Range site number		025XY001NV	024XY009NV	024XY011NV	025XY001NV
Potential production (lb/acre):					
Favorable years		3500	1500	500	3500
Normal years		2500	1000	350	2500
Unfavorable years		1800	700	200	1800

1066--PARAMAT VERY FINE SANDY LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		PARAMAT	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	5-15	---
alkali bluegrass	POJU	2-10	---	---	---
alkali cordgrass	SPGR	2-5	---	---	---
alkali sacaton	SPAI	2-10	5-15	---	---
basin wildrye	ELCI2	30-40	10-20	---	55-65
creeping wildrye	ELTR3	---	---	---	5-15
inland saltgrass	DISPS2	2-5	5-10	2-5	---
mat muhly	MURI	---	---	2-5	---
other perennial grasses	PPGG	---	5-10	---	---
sedge	CAREX	---	---	2-10	---
western wheatgrass	AGSM	---	---	---	5-15
wildrye	ELYMU	---	---	60-80	---
basin big sagebrush	ARTRT	2-10	---	---	10-15
black greasewood	SAVE4	---	5-15	---	2-8
rubber rabbitbrush	CHNA2	---	2-5	---	---
shadscale	ATCO	---	5-15	---	---
silver buffaloberry	SHAR	15-30	15-30	---	---
willow	SALIX	---	---	5-10	---
Range site number		024XY063NV	024XY064NV	025XY001NV	024XY006NV
Potential production (lb/acre):					
Favorable years		1800	1400	3500	1500
Normal years		1400	1000	2500	1100
Unfavorable years		900	700	1800	600

1067--PARANAT SILT LOAM, SODIC

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		PARANAT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Baltic rush	JUBA	---	---	5-15	---	---
alkali bluegrass	POJU	---	2-10	30-50	---	---
alkali cordgrass	SPGR	---	2-5	---	---	---
alkali sacaton	SPAI	5-15	2-10	5-20	5-15	---
basin wildrye	ELCI2	10-20	30-40	---	50-60	---
inland saltgrass	DISPS2	5-10	2-5	5-15	2-8	60-90
other perennial grasses	PPGG	5-10	---	---	---	---
other perennial forbs	PPFF	---	---	---	---	1-2
basin big sagebrush	ARTRT	---	2-10	---	---	---
black greasewood	SAVE4	5-15	---	---	5-15	---
rubber rabbitbrush	CHNA2	2-5	---	---	2-5	---
shadscale	ATCO	5-15	---	---	---	---
silver buffaloberry	SHAR	15-30	15-30	---	---	---
Range site number		024XY064NV	024XY063NV	024XY043NV	024XY007NV	026XY002NV
Potential production (lb/acre):						
Favorable years		1400	1800	3000	1900	2000
Normal years		1000	1400	2000	1400	1700
Unfavorable years		700	900	1000	800	1200

1072--HOOT-LAPED-RUBBLE LAND ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		HOOT	LAPED	RUBBLE LAND	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	2-5	5-15	---	---	5-15
Thurber needlegrass	STTH2	---	---	---	40-50	---
bluebunch wheatgrass	AGSP	---	---	---	2-10	---
bottlebrush squirreltail	SIHY	2-10	5-10	---	---	5-10
desert needlegrass	STSP3	2-10	---	---	---	---
globemallow	SPHAE	---	---	---	1-3	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	---
bud sagebrush	ARSP5	15-30	20-30	---	---	20-30
shadscale	ATCO	30-50	30-40	---	---	30-40
spiny hopsage	GRSP	---	2-5	---	2-5	2-5
winterfat	EULA5	---	2-5	---	---	2-5
Range site number		024XY025NV	024XY002NV	none	024XY005NV	024XY002NV
Potential production (lb/acre):						
Favorable years		250	750		800	750
Normal years		150	450		600	450
Unfavorable years		75	300		400	300

1075--HOOT-PANLEE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		HOOT	PANLEE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	2-5	10-15	---	5-15	15-30	5-15
Sandberg bluegrass	POSE	---	---	---	2-5	---	2-8
Thurber needlegrass	STH2	---	2-10	---	---	---	15-25
basin wildrye	ELCI2	---	---	---	---	5-10	---
bottlebrush squirreltail	SIHY	2-10	2-5	---	5-15	---	2-5
desert needlegrass	STSP3	2-10	---	---	---	---	---
needleandthread	STCO4	---	15-25	---	---	30-40	---
globemallow	SPHAE	---	---	---	---	---	1-2
Lahontan sagebrush	ARTEM	---	---	---	40-50	---	---
Nevada ephedra	EPNE	---	---	---	2-8	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	25-35
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	25-35	---	---	15-25	---
bud sagebrush	ARSP5	15-30	---	---	---	---	---
horsebrush	TETRA3	---	2-5	---	---	---	---
shadscale	ATCO	30-50	---	---	2-5	---	---
spiny hopsage	GRSP	---	---	---	2-5	1-5	5-15
Range site number		024XY025NV	024XY058NV	none	024XY057NV	024XY017NV	024XY020NV
Potential production (lb/acre):							
Favorable years		250	1300		450	900	700
Normal years		150	1000		350	700	450
Unfavorable years		75	700		250	500	300

1077--HOOT-ROCK OUTCROP-SOUGHE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		HOOT	ROCK OUTCROP	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	2-5	---	5-15	5-15	5-15	25-35
Sandberg bluegrass	POSE	---	---	2-8	2-8	---	---
Thurber needlegrass	STH2	---	---	25-35	25-35	---	5-10
bottlebrush squirreltail	SIHY	2-10	---	---	---	---	---
desert needlegrass	STSP3	2-10	---	---	---	40-60	---
globemallow	SPHA	---	---	---	---	1-3	2-4
Anderson wolfberry	LYAN	---	---	---	---	2-5	---
Douglas rabbitbrush	CHV18	---	---	---	---	---	2-5
Nevada ephedra	EPNE	---	---	2-5	2-5	2-5	---
Wyoming big sagebrush	ARTRW	---	---	25-35	25-35	---	25-35
bud sagebrush	ARSP5	15-30	---	---	---	---	---
shadscale	ATCO	30-50	---	---	---	20-35	2-5
spiny hopsage	GRSP	---	---	2-8	2-8	2-8	2-5
Range site number		024XY025NV	none	027XY007NV	027XY007NV	027XY017NV	024XY045NV
Potential production (lb/acre):							
Favorable years		250		700	700	400	350
Normal years		150		500	500	200	200
Unfavorable years		75		300	300	100	100

1078--HOOT-GENAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		HOOT	GENAW	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	2-5	10-15	5-15	---
Sandberg bluegrass	POSE	---	---	2-8	---
Thurber needlegrass	STH2	---	2-8	15-25	40-50
Webber ricegrass	STWE	---	2-5	---	---
bluebunch wheatgrass	AGSP	---	---	---	2-10
bottlebrush squirreltail	SIHY	2-10	2-5	2-5	---
desert needlegrass	STSP3	2-10	10-15	---	---
globemallow	SPHAE	---	---	1-2	1-3
Wyoming big sagebrush	ARTRWQ	---	20-30	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35	25-35
bud sagebrush	ARSP5	15-30	---	---	---
shadscale	ATCO	30-50	---	---	---
spiny hopsage	GRSP	---	10-25	5-15	2-5
Range site number		024XY025NV	023XY038NV	024XY020NV	024XY005NV
Potential production (lb/acre):					
Favorable years		250	600	700	800
Normal years		150	450	450	600
Unfavorable years		75	300	300	400

1090--SOOLAKE-ARGENTA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		SOOLAKE	ARGENTA	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	---	---	---	30-40
alkali sacaton	SPAI	---	---	5-15	---
basin wildrye	ELCI2	---	5-15	50-60	2-8
bottlebrush squirreltail	SIHY	5-10	---	---	---
inland saltgrass	DISPS2	---	5-10	2-8	---
needleandthread	STCO4	---	---	---	5-15
thickspike wheatgrass	AGDA	---	---	---	5-10
canadagre	RUHY	---	---	---	1-3
lemon scurfpea	PSLA	---	---	---	1-3
tufted eveningprimrose	OECE2	---	---	---	1-3
basin big sagebrush	ARTRT	---	---	---	25-30
black greasewood	SAVE4	15-30	60-75	5-15	---
bud sagebrush	ARSP5	2-8	---	---	---
fourwing saltbush	ATCA2	---	---	---	2-8
rubber rabbitbrush	CHNA2	---	---	2-5	---
seepweed	SUAED	2-8	---	---	---
shadscale	ATCO	30-50	---	---	---
spiny hopsage	GRSP	---	---	---	2-8

Range site number	024XY003NV	024XY011NV	024XY007NV	024XY001NV
Potential production (lb/acre):				
Favorable years	600	500	1900	800
Normal years	450	350	1400	500
Unfavorable years	300	200	800	300

1100--WENDANE SILT LOAM, OCCASIONALLY FLOODED

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		WENDANE	Inclusion 1	Inclusion 2
alkali sacaton	SPAI	5-15	---	---
basin wildrye	ELCI2	50-60	---	5-15
bottlebrush squirreltail	SIHY	---	5-10	---
inland saltgrass	DISPS2	2-8	---	5-10
black greasewood	SAVE4	5-15	15-30	60-75
bud sagebrush	ARSP5	---	2-8	---
rubber rabbitbrush	CHNA2	2-5	---	---
seepweed	SUAED	---	2-8	---
shadscale	ATCO	---	30-50	---
Range site number		024XY007NV	024XY003NV	024XY011NV
Potential production (lb/acre):				
Favorable years		1900	600	500
Normal years		1400	450	350
Unfavorable years		800	300	200

1101--WENDANE SILT LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		WENDANE	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	---	---	5-15
alkali sacaton	SPAI	---	5-15	---
basin wildrye	ELCI2	5-15	50-60	---
creeping wildrye	ELTR3	---	---	---
inland saltgrass	DISPS2	5-10	2-8	2-5
mat muhly	MURI	---	---	2-5
sedge	CAREX	---	---	2-10
wildrye	ELYMU	---	---	60-80
black greasewood	SAVE4	60-75	5-15	---
rubber rabbitbrush	CHNA2	---	2-5	---
willow	SALIX	---	---	5-10

Range site number	024XY011NV	024XY007NV	025XY001NV
Potential production (lb/acre):			
Favorable years	500	1900	3500
Normal years	350	1400	2500
Unfavorable years	200	800	1800

1102--WENDANE COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		WENDANE	WENDANE	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	---	5-15	---
alkali bluegrass	POJU	---	---	5-15	---	---
alkali cordgrass	SPGR	---	---	5-10	---	---
alkali muhly	MUS	---	---	10-20	---	---
alkali sacaton	SPAI	---	5-15	15-40	---	---
basin wildrye	ELCI2	5-15	50-60	2-5	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	5-10
creeping wildrye	ELTR3	---	---	---	---	---
inland saltgrass	DISPS2	5-10	2-8	5-10	2-5	---
mat muhly	MURI	---	---	---	2-5	---
sedge	CAREX	---	---	---	2-10	---
wildrye	ELYMU	---	---	---	60-80	---
arrowgrass	TRIGL	---	---	1-3	---	---
black greasewood	SAVE4	60-75	5-15	---	---	15-30
bud sagebrush	ARSP5	---	---	---	---	2-8
rubber rabbitbrush	CHNA2	---	2-5	---	---	---
seepweed	SUAED	---	---	---	---	2-8
shadscale	ATCO	---	---	---	---	30-50
willow	SALIX	---	---	---	5-10	---
Range site number		024XY011NV	024XY007NV	024XY009NV	025XY001NV	024XY003NV
Potential production (lb/acre):						
Favorable years		500	1900	1500	3500	600
Normal years		350	1400	1000	2500	450
Unfavorable years		200	800	700	1800	300

1104--WENDANE-SONOMA COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		WENDANE	SONOMA	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	5-15	---	---	---
alkali bluegrass	POJU	---	---	---	5-15	---
alkali cordgrass	SPGR	---	---	---	5-10	---
alkali muhly	MUAS	---	---	---	10-20	---
alkali sacaton	SPAI	5-15	---	---	15-40	---
basin wildrye	ELCI2	50-60	---	5-15	2-5	5-15
creeping wildrye	ELTR3	---	---	---	---	---
inland saltgrass	DISPS2	2-8	2-5	5-10	5-10	5-10
mat muhly	MURI	---	2-5	---	---	---
sedge	CAREX	---	2-10	---	---	---
wildrye	ELYMU	---	60-80	---	---	---
arrowgrass	TRIGL	---	---	---	1-3	---
black greasewood	SAVE4	5-15	---	60-75	---	60-75
rubber rabbitbrush	CHNA2	2-5	---	---	---	---
willow	SALIX	---	5-10	---	---	---

Range site number	024XY007NV	025XY001NV	024XY011NV	024XY009NV	024XY011NV
Potential production (lb/acre):					
Favorable years	1900	3500	500	1500	500
Normal years	1400	2500	350	1000	350
Unfavorable years	800	1800	200	700	200

1110--THEON VERY COBBLY LOAM, 15 TO 50 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		THEON	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-10	---
bottlebrush squirreltail	SIHY	2-5	5-10	---
desert needlegrass	STSP3	2-8	---	---
Bailey greasewood	SAVEB	15-30	---	---
Nevada ephedra	EPNE	---	5-10	---
bud sagebrush	ARSP5	2-8	---	---
burrobrush	HYMEN3	---	5-10	---
fourwing saltbush	ATCA2	---	5-10	---
littleleaf horsebrush	TEGL	---	10-20	---
rubber rabbitbrush	CHNA2	---	10-20	---
shadscale	ATCO	15-35	---	---
spiny hopsage	GRSP	---	10-20	---
Range site number		027XY019NV	027XY022NV	none
Potential production (lb/acre):				
Favorable years		300	400	
Normal years		175	200	
Unfavorable years		50	50	

1120--RELLEY-KELK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		RELLEY	KELK	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	20-30	---	---	---
Sandberg bluegrass	POSE	---	2-5	2-5	2-5
Thurber needlegrass	STTH2	---	15-25	15-25	15-25
bluebunch wheatgrass	AGSP	---	25-40	25-40	25-40
bottlebrush squirreltail	SIHY	5-10	---	---	---
Wyoming big sagebrush	ARTRW	---	15-25	15-25	15-25
sickle saltbush	ATFA	50-60	---	---	---
Range site number		024XY012NV	025XY019NV	025XY019NV	025XY019NV
Potential production (lb/acre):					
Favorable years		700	800	800	800
Normal years		400	600	600	600
Unfavorable years		200	400	400	400

1140--LAYVIEW-TUSEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		LAYVIEW	TUSEL	LAYVIEW	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Columbia needlegrass	STNE3	---	5-10	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	5-15	---	---	---
Idaho fescue	FED	20-40	5-10	15-25	50-60	20-40	---	---
Letterman needlegrass	STLE4	---	---	---	---	---	---	40-60
Nevada bluegrass	PONE3	---	2-5	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STTH2	2-8	---	---	---	2-8	---	---
Webber ricegrass	STWE	---	---	2-5	---	---	---	---
bluebunch wheatgrass	AGSP	10-20	5-10	2-5	5-15	10-20	---	---
bluegrass	POA++	2-8	---	5-10	---	2-8	---	---
mountain brome	BRCA5	---	15-30	---	---	---	---	---
pine bluegrass	POSC	---	---	---	---	---	---	---
slender wheatgrass	AGTR	---	5-10	---	---	---	---	---
goldenweed	HAPLO2	---	---	2-5	---	---	---	---
tailcup lupine	LUCA	---	---	---	---	---	---	20-40
black sagebrush	ARARN	---	---	---	---	---	---	---
low sagebrush	ARAR8	20-30	---	---	---	20-30	---	---
mountain big sagebrush	ARVA2	---	10-20	---	5-15	---	---	---
sagebrush	ARTEM	---	---	25-40	---	---	---	---
serviceberry	AMELA	---	2-10	---	---	---	---	---
snowberry	SYMPH	---	2-5	---	2-5	---	---	---

Range site number	024XY027NV	024XY032NV	024XY016NV	024XY023NV	024XY027NV	none	025XY028NV
Potential production (lb/acre):	1200	2200	350	1500	1200		1700
Favorable years	800	1700	250	1200	800		1400
Normal years	600	1200	150	900	600		1100
Unfavorable years							

1142--LAYVIEW-UDELOPE ASSOCIATION

(An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community)

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		LAYVIEW	UDELOPE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	---	---	2-5	---	---
Idaho fescue	FEID	15-30	20-30	X	2-10	5-15	---
Letterman needlegrass	STLE4	---	2-8	---	---	---	X
Nevada bluegrass	PONE3	---	---	---	2-5	---	---
Ross sedge	CAR05	---	---	---	---	---	X
basin wildrye	ELCI2	---	5-10	---	---	---	---
big squirreltail	SIJU	---	---	---	---	---	X
bluebunch wheatgrass	AGSP	---	---	---	2-5	---	---
bluegrass	POA++	5-15	---	---	---	---	X
dunhead sedge	CAPH2	---	---	---	---	---	X
horsemint giant hyssop	AGUR	---	---	X	---	---	---
mountain brome	BRCA5	---	2-8	X	5-15	2-5	---
sedge	CAREX	---	---	---	---	2-8	---
slender wheatgrass	AGTR	---	2-5	X	5-15	2-5	---
spike-fescue	LEKI2	---	---	---	2-10	20-30	X
western needlegrass	STOC2	---	---	---	---	---	X
carrotleaf lomatium	LODIM	---	---	---	2-5	---	---
geranium	GERAN	---	---	---	2-5	---	---
goldenweed	HAPLO2	2-5	---	---	---	---	X
groundsel	SENEC	---	---	X	2-5	---	X
Utah serviceberry	AMUT	---	---	X	1-5	---	X
antelope bitterbrush	PUTR2	---	---	---	1-5	---	---
black sagebrush	ARARN	---	---	---	---	---	---
common chokecherry	PRVI	---	---	---	1-5	---	---
curlleaf mountainmahogany	CELE3	---	30-45	---	---	---	X
erigonum	ERIOG	---	---	---	---	2-5	X
low sagebrush	ARAR8	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	2-5	---	5-15	15-25	X
mountain snowberry	SYOR2	---	2-10	---	---	---	X
sagebrush	ARTEM	30-35	---	---	---	---	---
snowberry	SYMPH	---	---	X	2-15	---	---
snowbrush ceanothus	CEVE	---	---	---	---	---	X
limber pine	PIFL2	---	---	---	---	---	X
quaking aspen	POTRT	---	---	X	---	---	X

Range site number	025XY024NV	025XY075NV	025XY065NV	025XY004NV	025XY076NV	025XY073NV
Potential production (lb/acre):						
Favorable years	400	2200	800	2800	1000	450
Normal years	275	1800	600	1800	700	350
Unfavorable years	150	1300	400	1200	400	250

1150--COTANT-SAY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		COTANT	SAY	COTANT	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Idaho fescue	FEID	20-40	20-40	20-40	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---
Thurber needlegrass	STH2	2-8	2-8	2-8	10-20	---	10-20
basin wildrye	ELCI2	---	2-15	---	2-8	---	2-8
bluebunch wheatgrass	AGSP	10-20	20-40	10-20	20-35	---	20-35
bluegrass	POA++	2-8	---	2-8	2-10	---	2-10
arrowleaf balsamroot	BASA3	---	1-5	---	---	---	---
helianthella	HELIA	---	1-2	---	---	---	---
tapertip hawksbeard	CRAC2	---	1-5	---	---	---	---
white stoneseed	LIRU4	---	1-2	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
antelope bitterbrush	PUTR2	---	---	---	2-8	---	2-8
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	10-15	---	10-15
low sagebrush	ARAR8	20-30	---	20-30	---	---	---
mountain big sagebrush	ARVA2	---	15-25	---	---	---	---
Range site number		024XY027NV	024XY021NV	024XY027NV	025XY014NV	none	025XY014NV
Potential production (lb/acre):							
Favorable years		1200	1400	1200	1000		1000
Normal years		800	1000	800	800		800
Unfavorable years		600	700	600	600		600

1151--COTANT-SAY-GOL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		COTANT	SAY	GOL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Idaho fescue	FEID	20-40	20-40	---	---	---	---	20-40
Nevada bluegrass	PONE3	---	---	---	5-10	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---	---
Thurber needlegrass	STTH2	2-8	2-8	5-15	---	10-20	---	2-8
basin wildrye	ELCI2	---	2-15	2-5	60-70	2-8	---	2-15
bluebunch wheatgrass	AGSP	10-20	20-40	40-60	---	20-35	---	20-40
bluegrass	POA++	2-8	---	2-8	---	2-10	---	---
mat muhly	MURI	---	---	---	2-8	---	---	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---	---	---
arrowleaf balsamroot	BASA3	---	1-5	2-5	---	---	---	1-5
helianthella	HELIA	---	1-2	---	---	---	---	1-2
tapertip hawksbeard	CRAC2	---	1-5	2-5	---	---	---	1-5
white stoneseed	LIRU4	---	1-2	---	---	---	---	1-2
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
antelope bitterbrush	PUTR2	---	---	---	---	2-8	---	---
basin big sagebrush	ARTRT	---	---	---	5-10	---	---	---
big sagebrush	ARTR2	---	---	15-25	---	10-15	---	---
low sagebrush	ARAR8	20-30	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	15-25	---	---	---	---	15-25

Range site number	024XY027NV	024XY021NV	024XY028NV	025XY003NV	025XY014NV	none	024XY021NV
Potential production (lb/acre):							
Favorable years	1200	1400	1000	4500	1000		1400
Normal years	800	1000	700	3500	800		1000
Unfavorable years	600	700	500	2000	600		700

1160--HAWLSLEY FINE SAND, 0 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		HAWLSLEY	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	50-70	20-30	15-30	---	20-30
basin wildrye	ELCI2	---	---	5-10	---	---
bottlebrush squirreltail	SIHY	---	---	---	2-10	2-5
needleandthread	STCO4	5-15	5-15	30-40	---	5-10
Nevada dalea	PSPO	0-5	---	---	---	---
Nevada dalea	PAP0	---	2-8	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	15-25	---	---
dalea	DALEA	---	---	---	---	2-5
fourwing saltbush	ATCA2	10-20	15-25	---	---	5-10
hairy horsebrush	TECO2	---	25-35	---	---	---
littleleaf horsebrush	TEGL	---	2-5	---	---	---
shadscale	ATCO	---	---	---	75-85	5-10
spiny hopsage	GRSP	2-5	---	1-5	---	10-20
winterfat	EULA5	2-8	---	---	---	---
Range site number		027XY009NV	027XY023NV	024XY017NV	024XY067NV	024XY055NV
Potential production (lb/acre):						
Favorable years		700	700	900	300	600
Normal years		450	500	700	200	400
Unfavorable years		250	300	500	75	250

1161--HAWLSLEY-ISOLDE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		HAWLSLEY	ISOLDE	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	50-70	20-30	30-40	---	---
basin wildrye	ELCI2	---	---	2-8	---	---
bottlebrush squirreltail	SIHY	---	---	---	5-10	---
needleandthread	STCO4	5-15	5-15	5-15	---	---
thickspike wheatgrass	AGDA	---	---	5-10	---	---
canaigre	RUHY	---	---	1-3	---	---
lemon scurfpea	PSLA	---	---	1-3	---	---
tufted eveningprimrose	OECE2	---	---	1-3	---	---
Nevada dalea	PSPO	0-5	---	---	---	---
Nevada dalea	PAPO	---	2-8	---	---	---
basin big sagebrush	ARTRT	---	---	25-30	---	---
black greasewood	SAVE4	---	---	---	15-30	---
bud sagebrush	ARSP5	---	---	---	2-8	---
fourwing saltbush	ATCA2	10-20	15-25	2-8	---	---
hairy horsebrush	TECO2	---	25-35	---	---	---
littleleaf horsebrush	TEGL	---	2-5	---	---	---
seepweed	SUAED	---	---	---	2-8	---
shadscale	ATCO	---	---	---	30-50	---
spiny hopsage	GRSP	2-5	---	2-8	---	---
winterfat	EULA5	2-8	---	---	---	---

Range site number	027XY009NV	027XY023NV	024XY001NV	024XY003NV	none
Potential production (lb/acre):					
Favorable years	700	700	800	600	
Normal years	450	500	500	450	
Unfavorable years	250	300	300	300	

1162--HAWSEY-DAVEY-MAZUMA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		HAWSEY	DAVEY	MAZUMA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	50-70	15-30	15-30	10-20	15-30	20-30	---
Sandberg bluegrass	POSE	---	---	2-15	5-10	---	---	---
basin wildrye	ELCI2	---	5-10	---	---	5-10	---	---
bottlebrush squirreltail	SIHY	---	---	2-8	2-8	---	---	---
needleandthread	STCO4	5-15	30-40	---	---	30-40	5-15	---
Bailey greasewood	SAVEB	---	---	---	15-30	---	---	---
Nevada dalea	PSPO	0-5	---	---	---	---	---	---
Nevada dalea	PAPO	---	---	---	---	---	2-8	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	15-25	---	---	15-25	---	---
bud sagebrush	ARSP5	---	---	15-25	2-8	---	---	---
fourwing saltbush	ATCA2	10-20	---	---	---	---	15-25	---
hairy horsebrush	TECO2	---	---	---	---	---	25-35	---
littleleaf horsebrush	TEGL	---	---	---	---	---	2-5	---
shadscale	ATCO	---	---	20-35	15-30	---	---	---
spiny hopsage	GRSP	2-5	1-5	---	---	1-5	---	---
winterfat	EULA5	2-8	---	5-10	---	---	---	---
Range site number		027XY009NV	024XY017NV	027XY013NV	027XY018NV	024XY017NV	027XY023NV	none
Potential production (lb/acre):								
Favorable years		700	900	600	400	900	700	
Normal years		450	700	450	250	700	500	
Unfavorable years		250	500	250	100	500	300	

1167--HAWSEY FINE SAND, 4 TO 15 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		HAWSEY	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	20-30	50-70	15-30	5-15
basin wildrye	ELCI2	---	---	5-10	---
bottlebrush squirreltail	SIHY	2-5	---	---	5-10
needleandthread	STCO4	5-10	5-15	30-40	---
Nevada dalea	PSPO	---	0-5	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	---	15-25	---
bud sagebrush	ARSP5	---	---	---	20-30
dalea	DALEA	2-5	---	---	---
fourwing saltbush	ATCA2	5-10	10-20	---	---
shadscale	ATCO	5-10	---	---	30-40
spiny hopsage	GRSP	10-20	2-5	1-5	2-5
winterfat	EULA5	---	2-8	---	2-5
Range site number		024XY055NV	027XY009NV	024XY017NV	024XY002NV
Potential production (lb/acre):					
Favorable years		600	700	900	750
Normal years		400	450	700	450
Unfavorable years		250	250	500	300

1168--HAWSEY-DAVEY-ESSAL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		HAWSEY	DAVEY	ESSAL	Inclusion 1
Indian ricegrass	ORHY	20-30	15-30	50-70	---
basin wildrye	ELCI2	---	5-10	---	---
bottlebrush squirreltail	SIHY	2-5	---	---	---
needleandthread	STCO4	5-10	30-40	5-15	---
Nevada dalea	PSP0	---	---	0-5	---
Wyoming big sagebrush	ARTRW	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	15-25	---	---
dalea	DALEA	2-5	---	---	---
fourwing saltbush	ATCA2	5-10	---	10-20	---
shadscale	ATCO	5-10	---	---	---
spiny hopsage	GRSP	10-20	1-5	2-5	---
winterfat	EULAS	---	---	2-8	---
Range site number		024XY055NV	024XY017NV	027XY009NV	none
Potential production (lb/acre):					
Favorable years		600	900	700	
Normal years		400	700	450	
Unfavorable years		250	500	250	

1169--HAWLEY-SOUGHE-PANLEE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		HAWLEY	SOUGHE	PANLEE	Inclusion 1
Indian ricegrass	ORHY	20-30	5-15	10-15	---
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STTH2	---	25-35	2-10	---
bottlebrush squirreltail	SIHY	2-5	---	2-5	---
needleandthread	STCO4	5-10	---	15-25	---
Nevada ephedra	EPNE	---	2-5	---	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---
big sagebrush	ARTR2	---	---	25-35	---
dalea	DALEA	2-5	---	---	---
fourwing saltbush	ATCA2	5-10	---	---	---
horsebrush	TETRA3	---	---	2-5	---
shadscale	ATCO	5-10	---	---	---
spiny hopsage	GRSP	10-20	2-8	---	---
Range site number		024XY055NV	027XY007NV	024XY058NV	none
Potential production (lb/acre):					
Favorable years		600	700	1300	
Normal years		400	500	1000	
Unfavorable years		250	300	700	

1170--HUNNTON-BLISS-TRUNK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		HUNNTON	BLISS	TRUNK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	---	5-15	---	5-15
Thurber needlegrass	STTH2	40-50	40-50	40-50	---	40-50	---
bluebunch wheatgrass	AGSP	2-10	2-10	2-10	---	2-10	---
bottlebrush squirreltail	SIHY	---	---	---	5-10	---	5-10
globemallow	SPHAE	1-3	1-3	1-3	---	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	---	25-35	---
bud sagebrush	ARSP5	---	---	---	20-30	---	20-30
shadscale	ATCO	---	---	---	30-40	---	30-40
spiny hopsage	GRSP	2-5	2-5	2-5	2-5	2-5	2-5
winterfat	EULA5	---	---	---	2-5	---	2-5
Range site number		024XY005NV	024XY005NV	024XY005NV	024XY002NV	024XY005NV	024XY002NV
Potential production (lb/acre):							
Favorable years		800	800	800	750	800	750
Normal years		600	600	600	450	600	450
Unfavorable years		400	400	400	300	400	300

1171--HUNNTON-DUGCHIP-OROVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		HUNNTON	DUGCHIP	OROVADA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	---	---	---	5-15	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	2-8	---	---
Thurber needlegrass	STTH2	40-50	40-50	40-50	40-50	15-25	40-50	---
basin wildrye	ELCI2	---	---	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	2-10	2-10	2-10	2-10	---	2-10	---
bottlebrush squirreltail	SIHY	---	---	---	---	2-5	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
globemallow	SPHAE	1-3	1-3	1-3	1-3	1-2	1-3	---
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35	25-35	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
spiny hopsage	GRSP	2-5	2-5	2-5	2-5	5-15	2-5	---

Range site number	024XY005NV	024XY005NV	024XY005NV	024XY005NV	024XY020NV	024XY005NV	025XY003NV
Potential production (lb/acre):							
Favorable years	800	800	800	800	700	800	4500
Normal years	600	600	600	600	450	600	3500
Unfavorable years	400	400	400	400	300	400	2000

1173--HUNNTON VERY FINE SANDY LOAM, 2 TO 8 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		HUNNTON	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	---	5-10
Sandberg bluegrass	POSE	---	2-10	2-5	---
Thurber needlegrass	STH2	40-50	10-20	15-25	---
Webber ricegrass	STWE	---	5-10	---	---
basin wildrye	ELCI2	---	---	---	60-70
bluebunch wheatgrass	AGSP	2-10	20-30	25-40	---
mat muhly	MURI	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	2-8
balsamroot	BALSA	---	2-5	---	---
globemallow	SPHAE	1-3	---	---	---
Wyoming big sagebrush	ARTRW	25-35	---	15-25	---
basin big sagebrush	ARTRT	---	---	---	5-10
low sagebrush	ARAR8	---	25-35	---	---
spiny hopsage	GRSP	2-5	---	---	---

Range site number	024XY005NV	025XY022NV	025XY019NV	025XY003NV
Potential production (lb/acre):				
Favorable years	800	600	800	4500
Normal years	600	400	600	3500
Unfavorable years	400	250	400	2000

1174--HUNNTON-ZEVADEZ-ENKO ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		HUNNTON	ZEVADEZ	ENKO	Inclusion 1
Thurber needlegrass	STH2	40-50	40-50	40-50	40-50
bluebunch wheatgrass	AGSP	2-10	2-10	2-10	2-10
globemallow	SPHAE	1-3	1-3	1-3	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35	25-35	25-35
spiny hopsage	GRSP	2-5	2-5	2-5	2-5
Range site number		024XY005NV	024XY005NV	024XY005NV	024XY005NV
Potential production (lb/acre):					
Favorable years		800	800	800	800
Normal years		600	600	600	600
Unfavorable years		400	400	400	400

1175--HUNNTON-GOOSEL-CONNEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		HUNNTON	GOOSEL	CONNEL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	---	---	---	25-35
Nevada bluegrass	PONE3	---	---	---	5-10	---	---
Sandberg bluegrass	POSE	2-5	2-5	2-5	---	---	---
Thurber needlegrass	STTB2	15-25	15-25	15-25	---	5-15	5-10
basin wildrye	ELCI2	---	---	---	60-70	2-5	---
bluebunch wheatgrass	AGSP	25-40	25-40	25-40	---	60-80	---
mat muhly	MURI	---	---	---	2-8	---	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---	---
globemallow	SPHAE	---	---	---	---	---	2-4
Douglas rabbitbrush	CHVI8	---	---	---	---	---	2-5
Wyoming big sagebrush	ARTRW	15-25	15-25	15-25	---	5-15	25-35
antelope bitterbrush	PUTR2	---	---	---	---	1-5	---
basin big sagebrush	ARTRT	---	---	---	5-10	---	---
shadscale	ATCO	---	---	---	---	---	2-5
spiny hopsage	GRSP	---	---	---	---	---	2-5
Range site number		025XY019NV	025XY019NV	025XY019NV	025XY003NV	025XY015NV	024XY045NV
Potential production (lb/acre):							
Favorable years		800	800	800	4500	1000	350
Normal years		600	600	600	3500	700	200
Unfavorable years		400	400	400	2000	500	100

1176--HUNNTON-DACKER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		HUNNTON	HUNNTON	DACKER	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10	---	---
Sandberg bluegrass	POSE	2-5	2-5	---	---	---	---	2-8
Thurber needlegrass	STH2	15-25	15-25	40-50	10-20	---	5-15	15-30
Webber ricegrass	STWE	---	---	---	---	---	---	2-8
basin wildrye	ELCI2	---	---	---	2-8	60-70	2-5	---
bluebunch wheatgrass	AGSP	25-40	25-40	2-10	20-35	---	60-80	20-40
bluegrass	POA++	---	---	---	2-10	---	---	---
mat muhly	MURI	---	---	---	---	2-8	---	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---	---
globemallow	SPHAE	---	---	1-3	---	---	---	---
Wyoming big sagebrush	ARTRW	15-25	15-25	25-35	---	---	5-15	---
antelope bitterbrush	PUTR2	---	---	---	2-8	---	1-5	---
basin big sagebrush	ARTRT	---	---	---	---	5-10	---	---
big sagebrush	ARTR2	---	---	---	10-15	---	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
sagebrush	ARTEM	---	---	---	---	---	---	20-30
spiny hopsage	GRSP	---	---	2-5	---	---	---	---
Range site number		025XY019NV	025XY019NV	024XY005NV	025XY014NV	025XY003NV	025XY015NV	025XY018NV
Potential production (lb/acre):								
Favorable years		800	800	800	1000	4500	1000	800
Normal years		600	600	600	800	3500	700	600
Unfavorable years		400	400	400	600	2000	500	400

1180--ROCCONDA-HOOT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		ROCCONDA	HOOT	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	2-5	10-15	---	5-15
Sandberg bluegrass	POSE	2-5	---	---	---	2-8
Thurber needlegrass	STH2	---	---	2-10	---	15-25
bottlebrush squirreltail	SIHY	5-15	2-10	2-5	---	2-5
desert needlegrass	STSP3	---	2-10	---	---	---
needleandthread	STCO4	---	---	15-25	---	---
globemallow	SPHAE	---	---	---	---	1-2
Lahontan sagebrush	ARTEM	40-50	---	---	---	---
Nevada ephedra	EPNE	2-8	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	25-35
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	25-35	---	---
bud sagebrush	ARSP5	---	15-30	---	---	---
horsebrush	TETRA3	---	---	2-5	---	---
shadscale	ATCO	2-5	30-50	---	---	---
spiny hopsage	GRSP	2-5	---	---	---	5-15
Range site number		024XY057NV	024XY025NV	024XY058NV	none	024XY020NV
Potential production (lb/acre):						
Favorable years		450	250	1300		700
Normal years		350	150	1000		450
Unfavorable years		250	75	700		300

1181--ROCCONDA-SOUGHE-HOOT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROCCONDA	SOUGHE	HOOT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Indian ricegrass	ORHY	5-15	---	2-5	5-15	5-15	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	2-5	---	---	2-8	---	---	---
Thurber needlegrass	STH2	---	40-50	---	15-25	---	---	10-20
basin wildrye	ELCI2	---	---	---	---	---	---	2-8
bluebunch wheatgrass	AGSP	---	2-10	---	---	---	---	20-35
bluegrass	POA++	---	---	---	---	---	---	2-10
bottlebrush squirreltail	SIHY	5-15	---	2-10	2-5	2-5	---	---
desert needlegrass	STSP3	---	---	2-10	---	2-8	---	---
globemallow	SPHAE	---	1-3	---	1-2	---	---	---
Bailey greasewood	SAVEB	---	---	---	---	15-30	---	---
Lahontan sagebrush	ARTEM	40-50	---	---	---	---	---	---
Nevada ephedra	EPNE	2-8	---	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	25-35	---	25-35	---	---	---
antelope bitterbrush	PUTR2	---	---	---	---	---	---	2-8
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	---	---	10-15
bud sagebrush	ARSP5	---	---	15-30	---	2-8	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
shadscale	ATCO	2-5	---	30-50	---	15-35	---	---
spiny hopsage	GRSP	2-5	2-5	---	5-15	---	---	---

Range site number	024XY057NV	024XY005NV	024XY025NV	024XY020NV	027XY019NV	none	025XY014NV
Potential production (lb/acre):							
Favorable years	450	800	250	700	300		1000
Normal years	350	600	150	450	175		800
Unfavorable years	250	400	75	300	50		600

1184--ROCCONDA-ROCK OUTCROP-PANLEE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROCCONDA	ROCK OUTCROP	PANLEE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	2-8	---
Indian ricegrass	ORHY	5-15	---	10-15	---	5-15	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-5	---	---	---	---	2-8	---
Thurber needlegrass	STTH2	---	---	2-10	40-50	15-30	5-15	---
basin wildrye	ELCI2	---	---	---	---	---	---	60-70
bluebunch wheatgrass	AGSP	---	---	---	2-10	---	40-60	---
bluegrass	POA++	---	---	---	---	---	2-8	---
bottlebrush squirreltail	SIHY	5-15	---	2-5	---	---	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
needleandthread	STCO4	---	---	15-25	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
Hooker balsamroot	BAHO	---	---	---	---	---	2-5	---
globemallow	SPRAE	---	---	---	1-3	2-5	---	---
tapertip hawksbeard	CRAC2	---	---	---	---	---	1-2	---
Lahontan sagebrush	ARTEM	40-50	---	---	---	---	10-20	---
sagebrush	ARTEM	---	---	---	---	---	---	---
Nevada ephedra	EPNE	2-8	---	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	25-35	---	---	---	---
black sagebrush	ARARN	---	---	---	---	25-35	---	---
horsebrush	TETRA3	---	---	2-5	---	---	---	---
Lahontan sagebrush	ARTEM	40-50	---	---	---	---	10-20	---
sagebrush	ARTEM	---	---	---	---	---	---	---
shadscale	ATCO	2-5	---	---	---	---	---	---
spiny hopsage	GRSP	2-5	---	---	2-5	---	---	---

Range site number	024XY057NV	none	024XY058NV	024XY005NV	024XY030NV	023XY037NV	025XY003NV
Potential production (lb/acre):							
Favorable years	450		1300	800	500	700	4500
Normal years	350		1000	600	350	600	3500
Unfavorable years	250		700	400	250	400	2000

1185--ROCCONDA-QUOMUS-ATLOW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROCCONDA	QUOMUS	ATLOW	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	2-8	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Indian ricegrass	ORHY	5-15	---	5-15	---	10-15	5-15	---
Sandberg bluegrass	POSE	2-5	---	---	2-8	---	2-8	---
Thurber needlegrass	STTH2	---	20-30	15-30	5-15	2-10	15-25	---
basin wildrye	ELCI2	---	2-5	---	---	---	---	---
bluebunch wheatgrass	AGSP	---	30-40	---	40-60	---	---	---
bluegrass	POA++	---	2-8	---	2-8	---	---	---
bottlebrush squirreltail	SIHY	5-15	---	---	---	2-5	2-5	---
needleandthread	STCO4	---	---	---	---	15-25	---	---
Hooker balsamroot	BAHO	---	---	---	2-5	---	---	---
globemallow	SPHAE	---	---	2-5	---	---	1-2	---
tapertip hawksbeard	CRAC2	---	---	---	1-2	---	---	---
Lahontan sagebrush	ARTEM	40-50	---	---	10-20	---	---	---
sagebrush	ARTEM	---	---	---	---	---	---	---
Nevada ephedra	EPNE	2-8	---	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	10-15	---	---	25-35	---	---
black sagebrush	ARARN	---	---	25-35	---	---	---	---
horsebrush	TETRA3	---	---	---	---	2-5	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
Lahontan sagebrush	ARTEM	40-50	---	---	10-20	---	---	---
sagebrush	ARTEM	---	---	---	---	---	---	---
shadscale	ATCO	2-5	---	---	---	---	---	---
spiny hopsage	GRSP	2-5	---	---	---	---	5-15	---

Range site number	024XY057NV	024XY013NV	024XY030NV	023XY037NV	024XY058NV	024XY020NV	none
Potential production (lb/acre):							
Favorable years	450	1000	500	700	1300	700	
Normal years	350	800	350	600	1000	450	
Unfavorable years	250	600	250	400	700	300	

1186--ROCCONDA-BURRITA-MIDRAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROCCONDA	BURRITA	MIDRAW	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	---	---	---	2-5	---	---
Indian ricegrass	ORHY	---	---	5-15	---	---	10-15	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-8	---	2-5	---	---	---	---
Thurber needlegrass	STTH2	5-15	10-20	20-40	---	15-20	2-8	---
Webber ricegrass	STWE	---	---	2-8	---	---	2-5	---
basin wildrye	ELCI2	---	2-10	2-5	---	5-10	---	40-60
bluebunch wheatgrass	AGSP	40-60	40-60	---	---	30-40	---	---
bluegrass	POA++	2-8	---	---	---	---	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	---	2-5	---
desert needlegrass	STSP3	---	---	---	---	---	10-15	---
Hooker balsamroot	BAHO	2-5	---	---	---	---	---	---
povertyweed	IVAX	---	---	---	---	---	---	2-5
tapertip hawkbeard	CRAC2	1-2	---	---	---	---	---	---
thelypody	THELY	---	---	---	---	---	---	1-3
Wyoming big sagebrush	ARTRWQ	---	10-20	15-25	---	15-20	20-30	---
antelope bitterbrush	PUTR2	---	2-5	---	---	2-10	---	---
basin big sagebrush	ARTRTQ	---	---	---	---	15-20	---	5-15
big sagebrush	ARTR2	---	10-20	---	---	15-20	---	---
mountain big sagebrush	ARVA2	---	10-20	---	---	15-20	---	---
rabbitbrush	CHRS9	---	---	---	---	2-5	---	---
sagebrush	ARTEM	10-20	---	---	---	---	---	---
spiny hopsage	GRSP	---	---	2-5	---	---	10-25	---

Range site number	023XY037NV	023XY039NV	023XY006NV	none	023XY020NV	023XY038NV	023XY005NV
Potential production (lb/acre):							
Favorable years	700	900	800		1100	600	3000
Normal years	600	700	600		900	450	2000
Unfavorable years	400	500	400		600	300	1300

1187--ROCCONDA-PANLEE-HOOT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ROCCONDA	PANLEE	HOOT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	10-15	2-5	5-15	5-15	---	---
Sandberg bluegrass	POSE	2-5	---	---	2-8	2-8	---	---
Thurber needlegrass	STH2	---	2-10	---	15-25	15-25	---	---
basin wildrye	ELCI2	---	---	---	---	---	55-65	---
bottlebrush squirreltail	SIHY	5-15	2-5	2-10	2-5	2-5	---	---
creeping wildrye	ELTR3	---	---	---	---	---	5-15	---
desert needlegrass	STSP3	---	---	2-10	---	---	---	---
needleandthread	STCO4	---	15-25	---	---	---	---	---
western wheatgrass	AGSM	---	---	---	---	---	5-15	---
globemallow	SPHAE	---	---	---	1-2	1-2	---	---
Lahontan sagebrush	ARTEM	40-50	---	---	---	---	---	---
Nevada ephedra	EPNE	2-8	---	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	10-15	---
big sagebrush	ARTR2	---	25-35	---	---	---	---	---
black greasewood	SAVE4	---	---	---	---	---	2-8	---
bud sagebrush	ARSP5	---	---	15-30	---	---	---	---
horsebrush	TETRA3	---	2-5	---	---	---	---	---
shadscale	ATCO	2-5	---	30-50	---	---	---	---
spiny hopsage	GRSP	2-5	---	---	5-15	5-15	---	---

Range site number	024XY057NV	024XY058NV	024XY025NV	024XY020NV	024XY020NV	024XY006NV	none
Potential production (lb/acre):							
Favorable years	450	1300	250	700	700	1500	
Normal years	350	1000	150	450	450	1100	
Unfavorable years	250	700	75	300	300	600	

1188--ROCCONDA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ROCCONDA	ROCCONDA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	2-8	5-15	---	---	---
Idaho fescue	FEID	---	---	10-20	---	---	---
Indian ricegrass	ORHY	2-8	---	---	5-15	2-5	5-15
Sandberg bluegrass	POSE	10-15	2-8	5-15	2-5	---	---
Thurber needlegrass	STH2	2-5	5-15	---	20-40	---	---
Webber ricegrass	STWE	---	---	---	2-8	---	---
basin wildrye	ELCI2	---	---	---	2-5	---	---
bluebunch wheatgrass	AGSP	---	40-60	---	---	---	---
bluegrass	POA++	---	2-8	5-15	---	---	---
bottlebrush squirreltail	SIHY	2-8	---	---	---	2-10	5-10
desert needlegrass	STSP3	2-10	---	---	---	2-10	---
Hooker balsamroot	BAHO	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	2-5	---	---	---
tapertip hawksbeard	CRAC2	---	1-2	---	---	---	---
Douglas rabbitbrush	CHVI8	---	---	2-5	---	---	---
Wyoming big sagebrush	ARTRWQ	---	---	---	15-25	---	---
bud sagebrush	ARSP5	---	---	---	---	15-30	20-30
low sagebrush	ARAR8	---	---	35-45	---	---	---
sagebrush	ARTEM	30-45	10-20	---	---	---	---
shadscale	ATCO	---	---	---	---	30-50	30-40
spiny hopsage	GRSP	---	---	---	2-5	---	2-5
winterfat	EULA5	---	---	---	---	---	2-5

Range site number	023XY047NV	023XY037NV	023XY008NV	023XY006NV	024XY025NV	024XY002NV
Potential production (lb/acre):						
Favorable years	500	700	400	800	250	750
Normal years	350	600	250	600	150	450
Unfavorable years	200	400	200	400	75	300

1189--ROCCONDA-SOUGHE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ROCCONDA	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	---	---	---	---	---
Indian ricegrass	ORHY	---	5-15	---	5-15	---	5-15
Sandberg bluegrass	POSE	2-8	2-5	---	---	---	2-5
Thurber needlegrass	STTH2	5-15	20-40	---	---	10-20	20-40
Webber ricegrass	STWE	---	2-8	---	---	2-10	2-8
basin wildrye	ELCI2	---	2-5	---	---	40-60	2-5
bluebunch wheatgrass	AGSP	40-60	---	---	---	---	---
bluegrass	POA++	2-8	---	---	---	---	---
bottlebrush squirreltail	SIHY	---	---	---	5-10	---	---
Hooker balsamroot	BAHO	2-5	---	---	---	---	---
tapertip hawksbeard	CRAC2	1-2	---	---	---	---	---
Wyoming big sagebrush	ARTRWQ	---	15-25	---	---	10-20	15-25
antelope bitterbrush	PUTR2	---	---	---	---	2-5	---
big sagebrush	ARTR2	---	---	---	---	10-20	---
bud sagebrush	ARSP5	---	---	---	20-30	---	---
mountain big sagebrush	ARVA2	---	---	---	---	10-20	---
sagebrush	ARTEM	10-20	---	---	---	---	---
shadscale	ATCO	---	---	---	30-40	---	---
spiny hopsage	GRSP	---	2-5	---	2-5	---	2-5
winterfat	EULAS	---	---	---	2-5	---	---
Range site number		023XY037NV	023XY006NV	none	024XY002NV	023XY039NV	023XY006NV
Potential production (lb/acre):							
Favorable years		700	800		750	900	800
Normal years		600	600		450	700	600
Unfavorable years		400	400		300	500	400

1192--ENKO FINE SANDY LOAM, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		ENKO	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	5-15	15-30	---
Sandberg bluegrass	POSE	---	2-8	---	---
Thurber needlegrass	STTH2	40-50	15-25	---	---
basin wildrye	ELCI2	---	---	5-10	55-65
bluebunch wheatgrass	AGSP	2-10	---	---	---
bottlebrush squirreltail	SIHY	---	2-5	---	---
creeping wildrye	ELTR3	---	---	---	5-15
needleandthread	STCO4	---	---	30-40	---
western wheatgrass	AGSM	---	---	---	5-15
globemallow	SPHAE	1-3	1-2	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	10-15
big sagebrush	ARTR2	---	---	15-25	---
black greasewood	SAVE4	---	---	---	2-8
spiny hopsage	GRSP	2-5	5-15	1-5	---

Range site number	024XY005NV	024XY020NV	024XY017NV	024XY006NV
Potential production (lb/acre):				
Favorable years	800	700	900	1500
Normal years	600	450	700	1100
Unfavorable years	400	300	500	600

1194--ENKO LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions	
		Soil name or Inclusion number--	
		ENKO	Inclusion 1
Thurber needlegrass	STH2	40-50	---
basin wildrye	ELCI2	---	55-65
bluebunch wheatgrass	AGSP	2-10	---
creeping wildrye	ELTR3	---	5-15
western wheatgrass	AGSM	---	5-15
globemallow	SPHAE	1-3	---
Wyoming big sagebrush	ARTRW	25-35	---
basin big sagebrush	ARTRT	---	10-15
black greasewood	SAVE4	---	2-8
spiny hopsage	GRSP	2-5	---
Range site number		024XY005NV	024XY006NV
Potential production (lb/acre):			
Favorable years		800	1500
Normal years		600	1100
Unfavorable years		400	600

1200--ERAKATAK-MADELINE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		ERAKATAK	MADELINE	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---
Idaho fescue	FEID	---	30-40	30-50	---	---
Nevada bluegrass	PONE3	---	2-5	---	---	---
Thurber needlegrass	STH2	2-5	---	---	10-20	---
basin wildrye	ELCI2	5-10	2-10	---	2-8	---
bluebunch wheatgrass	AGSP	30-50	15-30	15-30	20-35	---
bluegrass	POA++	---	---	2-10	2-10	---
mountain brome	BRCA5	2-15	---	---	---	---
arrowleaf balsamroot	BASA3	2-5	2-5	---	---	---
lupine	LUPIN	2-5	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---
antelope bitterbrush	PUTR2	---	5-10	2-5	2-8	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	10-15	---
low sagebrush	ARAR8	---	---	15-25	---	---
mountain big sagebrush	ARVA2	10-20	10-20	---	---	---
Range site number		024XY029NV	025XY012NV	025XY017NV	025XY014NV	none
Potential production (lb/acre):						
Favorable years		1500	1400	900	1000	
Normal years		1100	1000	700	800	
Unfavorable years		800	700	400	600	

1201--ERAKATAK-NINEMILE-HARCANY ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ERAKATAK	NINEMILE	HARCANY	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	2-8	---	5-15	2-8	---	---
Cusick bluegrass	POCU3	---	---	---	---	2-8	---	---
Idaho fescue	FEID	5-15	30-40	2-10	10-20	30-40	---	---
Letterman needlegrass	STLE4	2-5	---	2-5	---	---	---	---
Nevada bluegrass	PONE3	2-5	---	2-5	---	---	---	---
Sandberg bluegrass	POSE	---	2-8	---	5-15	---	---	---
Thurber needlegrass	STTH2	---	2-5	---	---	2-8	---	---
basin wildrye	ELCI2	10-20	2-5	---	---	5-15	---	---
blue wildrye	ELGL	---	---	2-5	---	---	---	---
bluebunch wheatgrass	AGSP	5-15	20-30	2-5	---	15-35	---	---
bluegrass	POA++	---	2-8	---	5-15	2-8	---	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOBR2	---	---	---	---	---	---	5-10
mountain brome	BRCAS	10-20	---	5-15	---	---	---	---
purple oniongrass	MESP	---	---	2-5	---	---	---	---
rush	JUNCU	---	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	---	5-10
slender wheatgrass	AGTR	---	---	5-15	---	---	---	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---	---
carrotleaf lomatium	LODIM	---	---	2-5	---	---	---	---
clover	TRIFO	---	---	2-5	---	---	---	---
geranium	GERAN	---	---	2-10	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---	---
groundsel	SENEC	---	---	2-10	---	---	---	---
horsemint giant hyssop	AGUR	---	---	2-5	---	---	---	---
lupine	LUPIN	1-2	---	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---	---
Douglas rabbitbrush	CHV18	---	---	---	2-5	---	---	---
antelope bitterbrush	PUTR2	2-5	---	2-5	---	2-10	---	---
common chokecherry	PRVI	---	---	2-5	---	---	---	---
elderberry	SAMBU	---	---	2-5	---	---	---	---
low sagebrush	ARAR8	---	10-20	---	35-45	---	---	---
mountain big sagebrush	ARVA2	15-25	---	---	---	10-20	---	---
quaking aspen	POTRT	---	---	2-5	---	---	---	---
snowberry	SYMPH	10-15	---	2-10	---	---	---	---

Range site number	023XY064NV	023XY017NV	023XY065NV	023XY008NV	023XY007NV	none	023XY025NV
Potential production (lb/acre):							
Favorable years	2000	900	2600	400	1600		4000
Normal years	1400	700	1800	250	1200		3000
Unfavorable years	1000	500	1400	200	900		2000

1202--ERAKATAK-BULLUMP-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ERAKATAK	BULLUMP	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	5-10	---	5-15	2-8	5-10
Columbia needlegrass	STNE3	---	10-20	---	---	---	10-20
Cusick bluegrass	POCU3	---	---	---	---	2-8	---
Idaho fescue	FEID	5-15	2-5	---	10-20	30-40	2-5
Letterman needlegrass	STLE4	---	2-5	---	---	---	---
Nevada bluegrass	PONE3	2-5	5-10	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	5-15	---	---
Thurber needlegrass	STTH2	---	---	---	---	2-8	---
basin wildrye	ELCI2	10-20	5-10	---	---	5-15	5-10
bluebunch wheatgrass	AGSP	5-15	---	---	---	15-35	---
bluegrass	POA++	---	5-10	---	5-15	2-8	5-10
mountain brome	BRCA5	10-20	20-40	---	---	---	20-40
needlegrass	STIPA	---	10-20	---	---	---	10-20
western needlegrass	STOC2	---	10-20	---	---	---	10-20
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---
lupine	LUPIN	1-2	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---
Douglas rabbitbrush	CHVI8	---	---	---	2-5	---	---
antelope bitterbrush	PUTR2	2-5	---	---	---	2-10	---
low sagebrush	ARAR8	---	---	---	35-45	---	---
mountain big sagebrush	ARVA2	15-25	10-20	---	---	10-20	10-20
snowberry	SYMPH	10-15	2-5	---	---	---	2-5

Range site number	023XY064NV	023XY019NV	none	023XY008NV	023XY007NV	023XY019NV
Potential production (lb/acre):						
Favorable years	2000	2200		400	1600	2200
Normal years	1400	1800		250	1200	1800
Unfavorable years	1000	1500		200	900	1500

1210--CRESAL-PLAYAS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		CRESAL	PLAYAS	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	---	5-15	---
bottlebrush squirreltail	SIHY	2-10	---	5-10	5-10	5-10
black greasewood	SAVE4	---	---	15-30	---	15-30
bud sagebrush	ARSP5	---	---	2-8	20-30	2-8
seepweed	SUAED	---	---	2-8	---	2-8
shadscale	ATCO	75-85	---	30-50	30-40	30-50
spiny hopsage	GRSP	---	---	---	2-5	---
winterfat	EULA5	---	---	---	2-5	---
Range site number		024XY067NV	none	024XY003NV	024XY002NV	024XY003NV
Potential production (lb/acre):						
Favorable years		300		600	750	600
Normal years		200		450	450	450
Unfavorable years		75		300	300	300

1211--CRESAL SILT LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

		Percentage composition and production (dry weight) of plants on major soils and inclusions	
Common plant name	Plant symbol	Soil name or Inclusion number--	
		CRESAL	PLAYAS
basin wildrye	ELCI2	---	55-65
bottlebrush squirreltail	SIHY	5-10	---
creeping wildrye	ELTR3	---	5-15
western wheatgrass	AGSM	---	5-15
basin big sagebrush	ARTRT	---	10-15
black greasewood	SAVE4	15-30	2-8
bud sagebrush	ARSP5	2-8	---
seepweed	SUAED	2-8	---
shadscale	ATCO	30-50	---
Range site number		024XY003NV	024XY006NV
Potential production (lb/acre):			
Favorable years		600	1500
Normal years		450	1100
Unfavorable years		300	600

1212--CRESAL-TRESED-PLAYAS COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		CRESAL	TRESED	PLAYAS	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	---	---	15-30	---
Sandberg bluegrass	POSE	---	---	---	---	2-15	---
bottlebrush squirreltail	SIHY	5-10	5-10	---	2-10	2-8	5-10
black greasewood	SAVE4	15-30	15-30	---	---	---	15-30
bud sagebrush	ARSP5	2-8	2-8	---	---	15-25	2-8
seepweed	SUAED	2-8	2-8	---	---	---	2-8
shadscale	ATCO	30-50	30-50	---	75-85	20-35	30-50
winterfat	EULA5	---	---	---	---	5-10	---
Range site number		024XY003NV	024XY003NV	none	024XY067NV	027XY013NV	024XY003NV
Potential production (lb/acre):							
Favorable years		600	600		300	600	600
Normal years		450	450		200	450	450
Unfavorable years		300	300		75	250	300

1221--ALYAN-BILBO ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ALYAN	BILBO	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Idaho fescue	FEID	---	---	---	40-60	---	---
Nevada bluegrass	PONE3	---	---	---	2-8	5-10	---
Sandberg bluegrass	POSE	---	---	2-5	---	---	2-8
Thurber needlegrass	STH2	10-20	5-15	15-25	---	---	15-30
Webber ricegrass	STWE	---	---	---	---	---	2-8
basin wildrye	ELCI2	2-8	2-5	---	2-8	60-70	---
bluebunch wheatgrass	AGSP	20-35	60-80	25-40	5-15	---	20-40
bluegrass	POA++	2-10	---	---	---	---	---
mat muhly	MURI	---	---	---	---	2-8	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---
Wyoming big sagebrush	ARTRW	---	5-15	15-25	---	---	---
antelope bitterbrush	PUTR2	2-8	1-5	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	10-20	5-10	---
big sagebrush	ARTR2	10-15	---	---	---	---	---
early sagebrush	ARLO9	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
sagebrush	ARTEM	---	---	---	---	---	20-30

Range site number	025XY014NV	025XY015NV	025XY019NV	025XY027NV	025XY003NV	025XY018NV
Potential production (lb/acre):						
Favorable years	1000	1000	800	1300	4500	800
Normal years	800	700	600	900	3500	600
Unfavorable years	600	500	400	500	2000	400

1230--KNOTT-SODHOUSE-WHOLAN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		KNOTT	SODHOUSE	WHOLAN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	5-15	5-15	---	5-15
Thurber needlegrass	STTH2	---	---	---	40-50	---
bluebunch wheatgrass	AGSP	---	---	---	2-10	---
bottlebrush squirreltail	SINY	5-10	5-10	5-10	---	5-10
globemallow	SPHA	---	---	---	1-3	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	---
bud sagebrush	ARSP5	20-30	20-30	20-30	---	20-30
shadscale	ATCO	30-40	30-40	30-40	---	30-40
spiny hopsage	GRSP	2-5	2-5	2-5	2-5	2-5
winterfat	EULA5	2-5	2-5	2-5	---	2-5

Range site number	024XY002NV	024XY002NV	024XY002NV	024XY005NV	024XY002NV
Potential production (lb/acre):	750	750	750	800	750
Favorable years	450	450	450	600	450
Normal years	300	300	300	400	300
Unfavorable years					

1240--LAPED VERY STONY VERY FINE SANDY LOAM, 4 TO 15 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		LAPED	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	5-15	---	5-15
Sandberg bluegrass	POSE	---	---	---	2-8
Thurber needlegrass	STTH2	---	---	---	15-25
bottlebrush squirreltail	SIHY	5-10	5-10	---	2-5
globemallow	SPHAE	---	---	---	1-2
Wyoming big sagebrush	ARTRW	---	---	---	25-35
bud sagebrush	ARSP5	20-30	20-30	---	---
shadscale	ATCO	30-40	30-40	---	---
spiny hopsage	GRSP	2-5	2-5	---	5-15
winterfat	EULA5	2-5	2-5	---	---
Range site number		024XY002NV	024XY002NV	none	024XY020NV
Potential production (lb/acre):					
Favorable years		750	750		700
Normal years		450	450		450
Unfavorable years		300	300		300

1241--LAPED-BOGER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		LAPED	BOGER	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	---	25-35	15-30	---	5-15
Sandberg bluegrass	POSE	---	---	---	---	---	2-8
Thurber needlegrass	STTH2	---	40-50	5-10	---	---	15-25
basin wildrye	ELCI2	---	---	---	5-10	---	---
bluebunch wheatgrass	AGSP	---	2-10	---	---	---	---
bottlebrush squirreltail	SIHY	5-10	---	---	---	---	2-5
needleandthread	STCO4	---	---	---	30-40	---	---
globemallow	SPHAE	---	1-3	2-4	---	---	1-2
Douglas rabbitbrush	CHVI8	---	---	2-5	---	---	---
Wyoming big sagebrush	ARTRW	---	25-35	25-35	---	---	25-35
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	15-25	---	---
bud sagebrush	ARSP5	20-30	---	---	---	---	---
shadscale	ATCO	30-40	---	2-5	---	---	---
spiny hopsage	GRSP	2-5	2-5	2-5	1-5	---	5-15
winterfat	EULA5	2-5	---	---	---	---	---

Range site number	024XY002NV	024XY005NV	024XY045NV	024XY017NV	none	024XY020NV
Potential production (lb/acre):						
Favorable years	750	800	350	900		700
Normal years	450	600	200	700		450
Unfavorable years	300	400	100	500		300

1255--DUTCHJOHN-CLEAVAGE BREGAR ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		DUTCHJOHN	CLEAVAGE	BREGAR	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	40-60	30-50	---	30-50	30-40	---	---
Nevada bluegrass	PONE3	2-8	---	---	---	2-5	40-60	5-10
Sandberg bluegrass	POSE	---	---	2-8	---	---	---	---
Thurber needlegrass	STTH2	---	---	15-30	---	---	---	---
Webber ricegrass	STWE	---	---	2-8	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	20-40	5-10
basin wildrye	ELCI2	2-8	---	---	---	2-10	2-8	---
bluebunch wheatgrass	AGSP	5-15	15-30	20-40	15-30	15-30	---	---
bluegrass	POA++	---	2-10	---	2-10	---	---	---
mat muhly	MURI	---	---	---	---	---	2-8	---
meadow barley	HOB2	---	---	---	---	---	2-5	---
sedge	CAREX	---	---	---	---	---	2-8	5-10
tufted hairgrass	DECE	---	---	---	---	---	---	30-60
Sierra clover	TRWO	---	---	---	---	---	---	2-5
arrowleaf balsamroot	BASA3	---	---	---	---	2-5	---	---
cinquefoil	POTEN	---	---	---	---	---	---	2-5
tapertip hawksbeard	CRAC2	---	---	---	---	2-5	---	---
antelope bitterbrush	PUTR2	---	2-5	---	2-5	5-10	---	---
basin big sagebrush	ARTRT	10-20	---	---	---	---	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	15-25	---	15-25	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	10-20	---	---
sagebrush	ARTEM	---	---	20-30	---	---	---	---

Range site number	025XY027NV	025XY017NV	025XY018NV	025XY017NV	025XY012NV	025XY006NV	025XY005NV
Potential production (lb/acre):							
Favorable years	1300	900	800	900	1400	2000	3000
Normal years	900	700	600	700	1000	1300	1700
Unfavorable years	500	400	400	400	700	800	1000

1260--WESO-TROCKEN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		WESO	TROCKEN	Inclusion 1
Indian ricegrass	ORHY	5-15	5-15	5-15
bottlebrush squirreltail	SIHY	5-10	5-10	5-10
bud sagebrush	ARSP5	20-30	20-30	20-30
shadscale	ATCO	30-40	30-40	30-40
spiny hopsage	GRSP	2-5	2-5	2-5
winterfat	EULAS	2-5	2-5	2-5
Range site number		024XY002NV	024XY002NV	024XY002NV
Potential production (lb/acre):				
Favorable years		750	750	750
Normal years		450	450	450
Unfavorable years		300	300	300

1271--GOL-SAY-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		GOL	SAY	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	2-5	---	---
Idaho fescue	FEID	---	20-40	---	5-15	---	15-25
Indian ricegrass	ORHY	---	---	---	---	X	---
Letterman needlegrass	STLE4	---	---	---	2-5	---	---
Nevada bluegrass	PONE3	---	---	---	2-5	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	X	---
Thurber needlegrass	STTH2	5-15	2-8	---	---	X	---
Webber ricegrass	STWE	---	---	---	---	---	2-5
basin wildrye	ELCI2	2-5	2-15	---	2-5	---	60-70
bluebunch wheatgrass	AGSP	40-60	20-40	---	5-15	X	2-5
bluegrass	POA++	2-8	---	---	---	---	5-10
bottlebrush squirreltail	SIHY	---	---	---	---	X	---
mat muhly	MURI	---	---	---	---	---	2-8
milkvetch	ASTRA	---	---	---	---	X	---
mountain brome	BRCA5	---	---	---	5-10	---	---
phlox	PHLOX	---	---	---	---	X	---
pine bluegrass	POSC	---	---	---	---	---	---
slender wheatgrass	AGTR	---	---	---	2-5	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	2-5	1-5	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	2-5
helianthella	HELIA	---	1-2	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	1-5	---	---	---	---
white stoneseed	LIRU4	---	1-2	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	X	---
antelope bitterbrush	PUTR2	---	---	---	---	X	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
big sagebrush	ARTR2	15-25	---	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---
currant	RIBES	---	---	---	2-8	---	---
low sagebrush	ARAR8	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	15-25	---	5-15	---	---
oceanspray	HOLOD	---	---	---	5-15	---	---
sagebrush	ARTEM	---	---	---	---	---	25-40
serviceberry	AMELA	---	---	---	5-15	---	---
snowberry	SYMPH	---	---	---	2-10	---	---
threetip sagebrush	ARTR4	---	---	---	2-10	---	---
Utah juniper	JUOS	---	---	---	---	X	---

Range site number	024XY028NV	024XY021NV	none	024XY034NV	025XY059NV	024XY016NV	025XY003NV
Potential production (lb/acre):							
Favorable years	1000	1400		1600	500	350	4500
Normal years	700	1000		1200	350	250	3500
Unfavorable years	500	700		800	200	150	2000

1285--IGDELL-GOCHEA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		IGDELL	GOCHEA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	30-50	40-60	30-50	---	---	---
Nevada bluegrass	PONE3	---	2-8	---	40-60	5-10	---
alpine timothy	PHAL2	---	---	---	20-40	5-10	---
basin wildrye	ELCI2	---	2-8	---	2-8	---	---
bluebunch wheatgrass	AGSP	15-30	5-15	15-30	---	---	---
bluegrass	POA++	2-10	---	2-10	---	---	---
mat muhly	MURI	---	---	---	2-8	---	---
meadow barley	HOB2	---	---	---	2-5	---	---
sedge	CAREX	---	---	---	2-8	5-10	---
tufted hairgrass	DECE	---	---	---	---	30-60	---
Sierra clover	TRWO	---	---	---	---	2-5	---
cinquefoil	POTEN	---	---	---	---	2-5	---
antelope bitterbrush	PUTR2	2-5	---	2-5	---	---	---
basin big sagebrush	ARTRT	---	10-20	---	---	---	---
low sagebrush	ARAR8	15-25	---	15-25	---	---	---
Range site number		025XY017NV	025XY027NV	025XY017NV	025XY006NV	025XY005NV	none
Potential production (lb/acre):							
Favorable years		900	1300	900	2000	3000	
Normal years		700	900	700	1300	1700	
Unfavorable years		400	500	400	800	1000	

1291--TRESED-ISOLDE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		TRESED	ISOLDE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	---	20-30	20-30	10-15	2-5	---
basin wildrye	ELCI2	---	---	---	---	5-20	---
bottlebrush squirreltail	SINY	5-10	---	---	5-10	2-5	---
inland saltgrass	DISPS2	---	2-5	2-5	2-5	---	---
globemallow	SPHAE	---	---	---	---	1-2	---
thelypody	THELY	---	---	---	---	2-4	---
Bailey greasewood	SAVEB	---	---	---	0-5	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-25	---
black greasewood	SAVE4	15-30	30-50	30-50	20-30	20-30	---
bud sagebrush	ARSP5	2-8	---	---	2-5	---	---
fourwing saltbush	ATCA2	---	2-5	2-5	---	---	---
seepweed	SUAED	2-8	---	---	---	---	---
shadscale	ATCO	30-50	2-5	2-5	20-35	---	---
spiny hopsage	GRSP	---	---	---	---	5-15	---
Range site number		024XY003NV	027XY016NV	027XY016NV	027XY024NV	024XY022NV	none
Potential production (lb/acre):							
Favorable years		600	500	500	500	800	
Normal years		450	300	300	350	600	
Unfavorable years		300	150	150	150	350	

1292--TRESED LOAMY VERY FINE SAND

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		TRESED	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	10-15	---	20-30
bottlebrush squirreltail	SIHY	5-10	5-10	---	---
inland saltgrass	DISPS2	---	2-5	---	2-5
Bailey greasewood	SAVEB	---	0-5	---	---
black greasewood	SAVE4	15-30	20-30	---	30-50
bud sagebrush	ARSP5	2-8	2-5	---	---
fourwing saltbush	ATCA2	---	---	---	2-5
seepweed	SUAED	2-8	---	---	---
shadscale	ATCO	30-50	20-35	---	2-5
Range site number		024XY003NV	027XY024NV	none	027XY016NV
Potential production (lb/acre):					
Favorable years		600	500		500
Normal years		450	350		300
Unfavorable years		300	150		150

1310--DEWAR-TENABO ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DEWAR	TENABO	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	10-20	40-60	5-15	---
Nevada bluegrass	PONE3	---	---	---	---	5-10
Sandberg bluegrass	POSE	2-8	2-5	---	2-8	---
Thurber needlegrass	STH2	15-25	---	---	15-25	---
basin wildrye	ELCI2	---	---	---	---	60-70
bottlebrush squirreltail	SIHY	2-5	10-20	2-8	2-5	---
mat muhly	MURI	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	2-8
desert globemallow	SPAM2	---	1-2	2-5	---	---
globemallow	SPHAE	1-2	---	---	1-2	---
Wyoming big sagebrush	ARTRW	25-35	---	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	5-10
bud sagebrush	ARSP5	---	---	2-8	---	---
shadscale	ATCO	---	45-55	---	---	---
spiny hopsage	GRSP	5-15	---	---	5-15	---
winterfat	EULAS	---	---	20-25	---	---
Range site number		024XY020NV	024XY060NV	024XY059NV	024XY020NV	025XY003NV
Potential production (lb/acre):						
Favorable years		700	700	700	700	4500
Normal years		450	500	500	450	3500
Unfavorable years		300	300	300	300	2000

1312--DEWAR-DACKER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DEWAR	DACKER	DEWAR	Inclusion 1	Inclusion 2
Canby bluegrass	POCA	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---
Sandberg bluegrass	POSE	---	2-5	---	2-5	---
Thurber needlegrass	STH2	40-50	15-25	40-50	15-25	10-20
basin wildrye	ELCI2	---	---	---	---	2-8
bluebunch wheatgrass	AGSP	2-10	25-40	2-10	25-40	20-35
bluegrass	POA++	---	---	---	---	2-10
globemallow	SPHAE	1-3	---	1-3	---	---
Wyoming big sagebrush	ARTRW	25-35	15-25	25-35	15-25	---
antelope bitterbrush	PUTR2	---	---	---	---	2-8
basin big sagebrush	ARTR2	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-15
mountain big sagebrush	ARVA2	---	---	---	---	---
spiny hopsage	GRSP	2-5	---	2-5	---	---

Range site number	024XY005NV	025XY019NV	024XY005NV	025XY019NV	025XY014NV
Potential production (lb/acre):					
Favorable years	800	800	800	800	1000
Normal years	600	600	600	600	800
Unfavorable years	400	400	400	400	600

1313--DEWAR-SODHOUSE-MIDRAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		DEWAR	SODHOUSE	MIDRAW	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	5-15	40-60	5-15	10-20	---	---
Sandberg bluegrass	POSE	2-8	---	2-8	2-5	---	---
Thurber needlegrass	STTH2	15-25	---	15-25	---	40-50	20-30
bluebunch wheatgrass	AGSP	---	---	---	---	2-10	20-35
bottlebrush squirreltail	SIHY	2-5	2-8	2-5	10-20	---	---
arrowleaf balsamroot	BASA3	---	---	---	---	---	2-5
desert globemallow	SPAM2	---	2-5	---	1-2	---	---
globemallow	SPHAE	1-2	---	1-2	---	1-3	---
tapertip hawksbeard	CRAC2	---	---	---	---	---	2-5
Wyoming big sagebrush	ARTRW	25-35	---	25-35	---	25-35	---
big sagebrush	ARTR2	---	---	---	---	---	15- 25
bud sagebrush	ARSP5	---	2-8	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
shadscale	ATCO	---	---	---	45-55	---	---
spiny hopsage	GRSP	5-15	---	5-15	---	2-5	---
winterfat	EULA5	---	20-25	---	---	---	---

Range site number	024XY020NV	024XY059NV	024XY020NV	024XY060NV	024XY005NV	024XY035NV
Potential production (lb/acre):						
Favorable years	700	700	700	700	800	500
Normal years	450	500	450	500	600	400
Unfavorable years	300	300	300	300	400	250

1314--DEWAR-ZEVADEZ ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		DEWAR	ZEVADEZ	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---
Indian ricegrass	ORHY	---	---	5-15	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	2-8	---	---
Thurber needlegrass	STTH2	40-50	20-30	15-25	15-25	---
Webber ricegrass	STWE	---	---	---	5-10	---
basin wildrye	ELCI2	---	2-5	---	---	60-70
bluebunch wheatgrass	AGSP	2-10	30-40	---	15-20	---
bluegrass	POA++	---	2-8	---	2-8	---
bottlebrush squirreltail	SIHY	---	---	2-5	---	---
mat muhly	MURI	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	2-8
balsamroot	BALSA	---	---	---	2-5	---
globemallow	SPHAE	1-3	---	1-2	---	---
Wyoming big sagebrush	ARTRW	25-35	---	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	5-10
big sagebrush	ARTR2	---	10-15	---	---	---
low sagebrush	ARAR8	---	---	---	25-35	---
mountain big sagebrush	ARVA2	---	---	---	---	---
spiny hopsage	GRSP	2-5	---	5-15	---	---
Range site number		024XY005NV	024XY013NV	024XY020NV	024XY018NV	025XY003NV
Potential production (lb/acre):						
Favorable years		800	1000	700	700	4500
Normal years		600	800	450	500	3500
Unfavorable years		400	600	300	300	2000

1315--DEWAR-CHIARA-BURRITA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		DEWAR	CHIARA	BURRITA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	2-5	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---	30-45
Thurber needlegrass	STTH2	40-50	40-50	20-30	15-20	---	15-25	---
Webber ricegrass	STWE	---	---	---	---	---	5-10	2-5
basin wildrye	ELCI2	---	---	---	5-10	---	---	---
bluebunch wheatgrass	AGSP	2-10	2-10	20-35	30-40	---	15-20	---
bluegrass	POA++	---	---	---	---	---	2-8	---
arrowleaf balsamroot	BASA3	---	---	2-5	---	---	---	---
balsamroot	BALSA	---	---	---	---	---	2-5	---
globemallow	SPHAE	1-3	1-3	---	---	---	---	---
tapertip hawksbeard	CRAC2	---	---	2-5	---	---	---	---
Wyoming big sagebrush	ARTRWQ	---	---	---	15-20	---	---	---
Wyoming big sagebrush	ARTRW	25-35	25-35	---	---	---	---	---
antelope bitterbrush	PUTR2	---	---	---	2-10	---	---	---
basin big sagebrush	ARTRTQ	---	---	---	15-20	---	---	---
big sagebrush	ARTR2	---	---	15- 25	15-20	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	25-35	30-45
mountain big sagebrush	ARVA2	---	---	---	15-20	---	---	---
rabbitbrush	CHRY9	---	---	---	2-5	---	---	---
spiny hopsage	GRSP	2-5	2-5	---	---	---	---	---

Range site number	024XY005NV	024XY005NV	024XY035NV	023XY020NV	none	024XY018NV	023XY021NV
Potential production (lb/acre):							
Favorable years	800	800	500	1100		700	300
Normal years	600	600	400	900		500	200
Unfavorable years	400	400	250	600		300	150

1321--VANWYPER-MIDRAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		VANWYPER	VANWYPER	MIDRAW	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	2-5	2-5	---	---	2-8
Thurber needlegrass	STTH2	5-15	15-25	15-25	---	10-20	15-30
Webber ricegrass	STWE	---	---	---	---	---	2-8
basin wildrye	ELCI2	2-5	---	---	---	2-8	---
bluebunch wheatgrass	AGSP	40-60	25-40	25-40	---	20-35	20-40
bluegrass	POA++	2-8	---	---	---	2-10	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	15-25	15-25	---	---	---
antelope bitterbrush	PUTR2	---	---	---	---	2-8	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	15-25	---	---	---	10-15	---
early sagebrush	ARLO9	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
sagebrush	ARTEM	---	---	---	---	---	20-30

Range site number	024XY028NV	025XY019NV	025XY019NV	none	025XY014NV	025XY018NV
Potential production (lb/acre):						
Favorable years	1000	800	800		1000	800
Normal years	700	600	600		800	600
Unfavorable years	500	400	400		600	400

1322--VANWYPER-DEVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		VANWYPER	DEVADA	VANWYPER	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	---
Sandberg bluegrass	POSE	2-5	2-8	---	---	---	---	2-10
Thurber needlegrass	STTH2	15-25	15-30	5-15	10-20	---	40-50	10-20
Webber ricegrass	STWE	---	2-8	---	---	---	---	5-10
basin wildrye	ELCI2	---	---	2-5	2-8	---	---	---
bluebunch wheatgrass	AGSP	25-40	20-40	40-60	20-35	---	2-10	20-30
bluegrass	POA++	---	---	2-8	2-10	---	---	---
arrowleaf balsamroot	BASA3	---	---	2-5	---	---	---	---
balsamroot	BALSA	---	---	---	---	---	---	2-5
globemallow	SPHAE	---	---	---	---	---	1-3	---
tapertip hawksbeard	CRAC2	---	---	2-5	---	---	---	---
Wyoming big sagebrush	ARTRW	15-25	---	---	---	---	25-35	---
antelope bitterbrush	PUTR2	---	---	---	2-8	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	15-25	10-15	---	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---	25-35
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
sagebrush	ARTEM	---	20-30	---	---	---	---	---
spiny hopsage	GRSP	---	---	---	---	---	2-5	---

Range site number	025XY019NV	025XY018NV	024XY028NV	025XY014NV	none	024XY005NV	025XY022NV
Potential production (lb/acre):							
Favorable years	800	800	1000	1000		800	600
Normal years	600	600	700	800		600	400
Unfavorable years	400	400	500	600		400	250

1324--VANWYPER-PANLEE-GOWJAI ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		VANWYPER	PANLEE	GOWJAI	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Idaho fescue	FEID	---	---	20-40	---	---	---
Indian ricegrass	ORHY	---	10-15	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegress	STTH2	5-15	2-10	2-8	20-30	40-50	---
basin wildrye	ELCI2	2-5	---	2-15	---	---	---
bluebunch wheatgrass	AGSP	40-60	---	20-40	20-35	2-10	---
bluegrass	POA++	2-8	---	---	---	---	---
bottlebrush squirreltail	SIHY	---	2-5	---	---	---	---
needleandthread	STCO4	---	15-25	---	---	---	---
arrowleaf balsamroot	BASA3	2-5	---	1-5	2-5	---	---
globemallow	SPHAE	---	---	---	---	1-3	---
helianthella	HELIA	---	---	1-2	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	1-5	2-5	---	---
white stoneseed	LIRU4	---	---	1-2	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	15-25	25-35	---	15- 25	---	---
horsebrush	TETRA3	---	2-5	---	---	---	---
mountain big sagebrush	ARVA2	---	---	15-25	---	---	---
spiny hopsage	GRSP	---	---	---	---	2-5	---
Range site number		024XY028NV	024XY058NV	024XY021NV	024XY035NV	024XY005NV	none
Potential production (lb/acre):							
Favorable years		1000	1300	1400	500	800	
Normal years		700	1000	1000	400	600	
Unfavorable years		500	700	700	250	400	

1327--VANWYPER-GOWJAI-SOUGHE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		VANWYPER	GOWJAI	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	---	30-50	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	5-10	---	---	---
Sandberg bluegrass	POSE	---	---	2-5	---	---	2-8	---
Thurber needlegrass	STTH2	5-15	---	15-25	---	---	15-30	20-30
Webber ricegrass	STWE	---	---	---	---	---	2-8	---
basin wildrye	ELCI2	2-5	---	---	60-70	---	---	---
bluebunch wheatgrass	AGSP	60-80	15-30	25-40	---	---	20-40	20-35
bluegrass	POA++	---	2-10	---	---	---	---	---
mat muhly	MURI	---	---	---	2-8	---	---	---
streambank wheatgrass	AGDAR	---	---	---	2-8	---	---	---
arrowleaf balsamroot	BASA3	---	---	---	---	---	---	2-5
tapertip hawksbeard	CRAC2	---	---	---	---	---	---	2-5
Wyoming big sagebrush	ARTRW	5-15	---	15-25	---	---	---	---
antelope bitterbrush	PUTR2	1-5	2-5	---	---	---	---	---
basin big sagebrush	ARTR1	---	---	---	5-10	---	---	---
big sagebrush	ARTR2	---	---	---	---	---	---	15- 25
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
sagebrush	ARTEM	---	---	---	---	---	20-30	---

Range site number	025XY015NV	025XY017NV	025XY019NV	025XY003NV	none	025XY018NV	024XY035NV
Potential production (lb/acre):							
Favorable years	1000	900	800	4500		800	500
Normal years	700	700	600	3500		600	400
Unfavorable years	500	400	400	2000		400	250

1331--SISCAB-AYCAB-OLA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SISCAB	AYCAB	OLA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	5-15	---	---
Columbia needlegrass	STNE3	---	5-10	---	---	---	---	---
Idaho fescue	FEID	---	5-10	30-40	---	10-20	---	---
Letterman needlegrass	STLE4	---	5-10	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	2-5	---
Sandberg bluegrass	POSE	---	---	---	---	5-15	---	---
Thurber needlegrass	STH2	5-10	---	---	---	---	---	---
basin wildrye	ELCI2	---	5-10	---	---	---	40-60	---
bluebunch wheatgrass	AGSP	40-60	---	10-20	---	---	---	---
bluegrass	POA++	---	2-5	5-15	---	5-15	---	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOB2	---	---	---	---	---	---	5-10
mountain brome	BRCA5	---	20-30	---	---	---	---	---
needlegrass	STIPA	---	5-10	---	---	---	---	---
purple oniongrass	MESP	---	2-5	---	---	---	---	---
rush	JUNCU	---	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	2-5	5-10
slender wheatgrass	AGTR	---	---	---	---	---	5-15	---
streambank wheatgrass	AGDAR	---	---	---	---	---	5-15	---
thickspike wheatgrass	AGDA	---	---	---	---	---	5-15	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
western needlegrass	STOC2	---	5-10	---	---	---	---	---
wheatgrass	AGROP2	---	---	---	---	---	5-15	---
arrowleaf balsamroot	BASA3	1-2	1-2	2-5	---	---	---	---
giant hyssop	AGAST	---	1-2	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	2-5	---	---
lupine	LUPIN	---	1-2	---	---	---	2-5	---
tall mountain larkspur	DESC	---	1-2	---	---	---	---	---
tapertip hawksbeard	CRAC2	1-2	1-2	2-5	---	---	---	---
Douglas rabbitbrush	CHVI8	---	---	---	---	2-5	---	---
antelope bitterbrush	PUTR2	5-10	2-5	2-5	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	35-45	---	---
mountain big sagebrush	ARVA2	15-25	15-25	15-25	---	---	15-25	---
snowberry	SYMPH	---	5-10	2-5	---	---	---	---
Range site number		023XY042NV	023XY048NV	023XY043NV	none	023XY008NV	023XY056NV	023XY025NV
Potential production (lb/acre):								
Favorable years		1000	1300	1300		400	2200	4000
Normal years		800	1100	700		250	1700	3000
Unfavorable years		600	900	400		200	1200	2000

1332--SISCAB-OLA-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SISCAB	OLA	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	2-5	---	---
Columbia needlegrass	STNE3	---	---	---	5-10	---	---	---
Idaho fescue	FEID	---	30-40	---	5-10	---	---	---
Indian ricegrass	ORHY	---	---	---	---	2-5	---	---
Letterman needlegrass	STLE4	---	---	---	5-10	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	2-5	---
Thurber needlegrass	STTH2	5-10	---	---	---	20-40	---	---
basin wildrye	ELCI2	---	---	---	5-10	2-5	40-60	---
bluebunch wheatgrass	AGSP	40-60	10-20	---	---	15-25	---	---
bluegrass	POA++	---	5-15	---	2-5	---	---	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOBR2	---	---	---	---	---	---	5-10
mountain brome	BRCA5	---	---	---	20-30	---	---	---
needlegrass	STIPA	---	---	---	5-10	---	---	---
purple oniongrass	MESP	---	---	---	2-5	---	---	---
rush	JUNCU	---	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	2-5	5-10
slender wheatgrass	AGTR	---	---	---	---	---	5-15	---
streambank wheatgrass	AGDAR	---	---	---	---	---	5-15	---
thickspike wheatgrass	AGDA	---	---	---	---	---	5-15	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
western needlegrass	STOC2	---	---	---	5-10	---	---	---
wheatgrass	AGROP2	---	---	---	---	---	5-15	---
arrowleaf balsamroot	BASA3	1-2	2-5	---	1-2	1-2	---	---
giant hyssop	AGAST	---	---	---	1-2	---	---	---
lupine	LUPIN	---	---	---	1-2	---	2-5	---
tall mountain larkspur	DESC	---	---	---	1-2	---	---	---
tapertip hawksbeard	CRAC2	1-2	2-5	---	1-2	1-2	---	---
Wyoming big sagebrush	ARTRWQ	---	---	---	---	15-25	---	---
antelope bitterbrush	PTR2	5-10	2-5	---	2-5	---	---	---
ephedra	EPHD	---	---	---	---	2-5	---	---
littleleaf horsebrush	TEGL	---	---	---	---	2-5	---	---
mountain big sagebrush	ARVA2	15-25	15-25	---	15-25	---	15-25	---
snowberry	SYMPH	---	2-5	---	5-10	---	---	---

Range site number	023XY042NV	023XY043NV	none	023XY048NV	023XY057NV	023XY056NV	023XY025NV
Potential production (lb/acre):							
Favorable years	1000	1300		1300	700	2200	4000
Normal years	800	700		1100	500	1700	3000
Unfavorable years	600	400		900	300	1200	2000

1333--SISCAB-SAY-ROCK OUTCROP ASSOCIATION

[An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SISCAB	SAY	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Columbia needlegrass	STNE3	---	---	---	---	2-8	---
Idaho fescue	FEID	---	20-40	---	---	---	---
Letterman needlegrass	STLE4	---	---	---	---	2-5	---
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegrass	STTH2	5-10	2-8	---	5-15	---	---
basin wildrye	ELCI2	---	2-15	---	2-5	---	---
bluebunch wheatgrass	AGSP	40-60	20-40	---	40-60	---	---
bluegrass	POA++	---	---	---	2-8	---	X
mountain brome	BRCA5	---	---	---	---	5-10	---
rush	JUNCU	---	---	---	---	---	X
sedge	CAREX	---	---	---	---	---	X
slender wheatgrass	AGTR	---	---	---	---	5-10	---
streambank wheatgrass	AGDAR	---	---	---	---	---	X
western wheatgrass	AGSM	---	---	---	---	---	X
arrowleaf balsamroot	BASA3	1-2	1-5	---	2-5	---	---
clover	TRIFO	---	---	---	---	---	X
helianthella	HELIA	---	1-2	---	---	---	---
tapertip hawkbeard	CRAC2	1-2	1-5	---	2-5	---	---
white stoneseed	LIRU4	---	1-2	---	---	---	X
yarrow	ACHIL	---	---	---	---	---	X
Woods rose	ROWO	---	---	---	---	---	X
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
antelope bitterbrush	PUTR2	5-10	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	15-25	---	---
currant	RIBES	---	---	---	---	---	X
mountain big sagebrush	ARVA2	15-25	15-25	---	---	---	---
quaking aspen	POTR5	---	---	---	---	50-60	---
willow	SALIX	---	---	---	---	1-8	X
narrowleaf cottonwood	POAN3	---	---	---	---	---	X
willow	SALIX	---	---	---	---	1-8	X

Range site number	023XY042NV	024XY021NV	none	024XY028NV	025XY002NV	025XY053NV
Potential production (lb/acre):						
Favorable years	1000	1400		1000	1800	2500
Normal years	800	1000		700	1300	2000
Unfavorable years	600	700		500	900	1000

1334--SISCAB-EAGLEROCK-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SISCAB	EAGLEROCK	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Idaho fescue	FEID	---	---	---	X	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegrass	STTH2	5-10	10-20	---	---	5-15	---
basin wildrye	ELCI2	---	2-10	---	---	2-5	60-70
bluebunch wheatgrass	AGSP	40-60	40-60	---	---	40-60	---
bluegrass	POA++	---	---	---	---	2-8	---
horsemint giant hyssop	AGUR	---	---	---	X	---	---
mat muhly	MURI	---	---	---	---	---	2-8
mountain brome	BRCA5	---	---	---	X	---	---
slender wheatgrass	AGTR	---	---	---	X	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	1-2	---	---	---	2-5	---
groundsel	SENEC	---	---	---	X	---	---
tapertip hawksbeard	CRAC2	1-2	---	---	---	2-5	---
Utah serviceberry	AMUT	---	---	---	X	---	---
Wyoming big sagebrush	ARTRWQ	---	10-20	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
antelope bitterbrush	PUTR2	5-10	2-5	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	10-20	---	---	15-25	---
mountain big sagebrush	ARVA2	15-25	10-20	---	---	---	---
snowberry	SYMPH	---	---	---	X	---	---
quaking aspen	POTRT	---	---	---	X	---	---

Range site number	023XY042NV	023XY039NV	none	025XY065NV	024XY028NV	025XY003NV
Potential production (lb/acre):						
Favorable years	1000	900		800	1000	4500
Normal years	800	700		600	700	3500
Unfavorable years	600	500		400	500	2000

1335--SISCAB-WESTBUTTE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SISCAB	WESTBUTTE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	5-15	---
Cusick bluegrass	POCU3	---	5-10	---	---	---	---	---
Idaho fescue	FEID	---	30-50	---	2-10	30-40	10-20	---
Letterman needlegrass	STLE4	---	2-5	---	2-5	---	---	---
Nevada bluegrass	PONE3	---	---	---	2-5	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	5-15	---
Thurber needlegrass	STTH2	5-10	---	---	---	---	---	---
blue wildrye	ELGL	---	---	---	2-5	---	---	---
bluebunch wheatgrass	AGSP	40-60	2-5	---	2-5	10-20	---	---
bluegrass	POA++	---	---	---	---	5-15	5-15	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOBR2	---	---	---	---	---	---	5-10
mountain brome	BRCAS	---	---	---	5-15	---	---	---
purple oniongrass	MESP	---	---	---	2-5	---	---	---
rush	JUNCU	---	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	---	5-10
slender wheatgrass	AGTR	---	---	---	5-15	---	---	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
arrowleaf balsamroot	BASA3	1-2	1-3	---	---	2-5	---	---
carrotleaf lomatium	LODIM	---	---	---	2-5	---	---	---
clover	TRIFO	---	---	---	2-5	---	---	---
geranium	GERAN	---	---	---	2-10	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	2-5	---
groundsel	SENEC	---	---	---	2-10	---	---	---
horsemint giant hyssop	AGUR	---	---	---	2-5	---	---	---
tapertip hawkbeard	CRAC2	1-2	1-3	---	---	2-5	---	---
Douglas rabbitbrush	CHVI8	---	---	---	---	---	2-5	---
antelope bitterbrush	PUR2	5-10	---	---	2-5	2-5	---	---
common chokecherry	PRVI	---	---	---	2-5	---	---	---
elderberry	SAMBU	---	---	---	2-5	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	35-45	---
mountain big sagebrush	ARVA2	15-25	---	---	---	15-25	---	---
quaking aspen	POTRT	---	---	---	2-5	---	---	---
snowberry	SYMPH	---	2-5	---	2-10	2-5	---	---
threetip sagebrush	ARTR4	---	15-25	---	---	---	---	---

Range site number	023XY042NV	023XY053NV	none	023XY065NV	023XY043NV	023XY008NV	023XY025NV
Potential production (lb/acre):							
Favorable years	1000	1000		2600	1300	400	4000
Normal years	800	800		1800	700	250	3000
Unfavorable years	600	600		1400	400	200	2000

1341--LONGCREEK-MENBO-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		LONGCREEK	MENBO	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	2-8	---	5-15	2-5	5-10	---
Columbia needlegrass	STNE3	---	---	---	---	---	10-20	---
Cusick bluegrass	POCU3	---	2-8	---	---	---	---	---
Idaho fescue	FEID	---	30-40	---	10-20	40-60	2-5	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10	---
Sandberg bluegrass	POSE	---	---	---	5-15	---	---	---
Thurber needlegrass	STTH2	5-10	2-8	---	---	---	---	---
basin wildrye	ELCI2	15-25	5-15	---	---	2-5	5-10	---
bluebunch wheatgrass	AGSP	40-50	15-35	---	---	5-10	---	---
bluegrass	POA++	---	2-8	---	5-15	---	5-10	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOBR2	---	---	---	---	---	---	5-10
mountain brome	BRCA5	---	---	---	---	---	20-40	---
needlegrass	STIPA	---	---	---	---	---	10-20	---
rush	JUNCU	---	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	---	5-10
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
western needlegrass	STOC2	---	---	---	---	---	10-20	---
arrowleaf balsamroot	BASA3	---	---	---	---	1-2	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---	---
horsemint giant hyssop	AGUR	---	---	---	---	1-2	---	---
lupine	LUPIN	---	---	---	---	2-5	---	---
penstemon	PENST	---	---	---	---	1-2	---	---
white stoneseed	LIRU4	---	---	---	---	2-5	---	---
Douglas rabbitbrush	CHVI8	---	---	---	2-5	---	---	---
antelope bitterbrush	PUTR2	5-10	2-10	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	35-45	---	---	---
mountain big sagebrush	ARVA2	15-25	10-20	---	---	5-15	10-20	---
snowberry	SYMPH	---	---	---	---	2-5	2-5	---

Range site number	023XY018NV	023XY007NV	none	023XY008NV	023XY054NV	023XY019NV	023XY025NV
Potential production (lb/acre):							
Favorable years	1200	1600		400	1500	2200	4000
Normal years	1000	1200		250	1200	1800	3000
Unfavorable years	800	900		200	900	1500	2000

1342--LONGCREEK-ROCK OUTCROP COMPLEX, 50 TO 75 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		LONGCREEK	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	2-8	---	---	5-10
Cusick bluegrass	POCU3	---	---	2-8	---	---	5-10
Idaho fescue	FEID	---	---	30-40	2-10	---	5-10
Letterman needlegrass	STLE4	---	---	---	2-5	---	---
Nevada bluegrass	PONE3	---	---	---	2-5	---	---
Thurber needlegrass	STTH2	5-10	---	2-8	---	---	2-10
basin wildrye	ELCI2	15-25	---	5-15	---	---	5-10
blue wildrye	ELGL	---	---	---	2-5	---	---
bluebunch wheatgrass	AGSP	40-50	---	15-35	2-5	---	20-35
bluegrass	POA++	---	---	2-8	---	5-10	5-10
mannagrass	GLYCE	---	---	---	---	5-10	---
meadow barley	HOBR2	---	---	---	---	5-10	---
mountain brome	BRCAS	---	---	---	5-15	---	---
needlegrass	STIPA	---	---	---	---	---	2-10
purple oniongrass	MESP	---	---	---	2-5	---	---
rush	JUNCU	---	---	---	---	5-10	---
sedge	CAREX	---	---	---	---	5-10	---
slender wheatgrass	AGTR	---	---	---	5-15	---	---
tufted hairgrass	DECE	---	---	---	---	30-50	---
western needlegrass	STOC2	---	---	---	---	---	2-10
carrotleaf lomatium	LODIM	---	---	---	2-5	---	---
clover	TRIFO	---	---	---	2-5	---	---
geranium	GERAN	---	---	---	2-10	---	---
groundsel	SENEC	---	---	---	2-10	---	---
horsemint giant hyssop	AGUR	---	---	---	2-5	---	---
antelope bitterbrush	PUTR2	5-10	---	2-10	2-5	---	15-25
common chokecherry	PRVI	---	---	---	2-5	---	---
elderberry	SAMBU	---	---	---	2-5	---	---
mountain big sagebrush	ARVA2	15-25	---	10-20	---	---	5-15
quaking aspen	POTRT	---	---	---	2-5	---	---
snowberry	SYMPH	---	---	---	2-10	---	---

Range site number	023XY018NV	none	023XY007NV	023XY065NV	023XY025NV	023XY015NV
Potential production (lb/acre):						
Favorable years	1200		1600	2600	4000	1500
Normal years	1000		1200	1800	3000	1200
Unfavorable years	800		900	1400	2000	900

1344--LONGCREEK-SOFTSCRABBLE-ANAWALT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		LONGCREEK	SOFTSCRABBLE	ANAWALT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	2-8	---	2-8	5-10	---	---
Cusick bluegrass	POCU3	---	2-8	---	---	5-10	5-10	---
Idaho fescue	FEID	---	30-40	---	30-40	5-10	30-50	---
Letterman needlegrass	STLE4	---	---	---	---	---	2-5	---
Sandberg bluegrass	POSE	---	---	30-45	2-8	---	---	---
Thurber needlegrass	STH2	5-10	2-8	---	2-5	2-10	---	---
Webber ricegrass	STWE	---	---	2-5	---	---	---	---
basin wildrye	ELCI2	15-25	5-15	---	2-5	5-10	---	---
bluebunch wheatgrass	AGSP	40-50	15-35	---	20-30	20-35	2-5	---
bluegrass	POA++	---	2-8	---	2-8	5-10	---	---
needlegrass	STIPA	---	---	---	---	2-10	---	---
western needlegrass	STOC2	---	---	---	---	2-10	---	---
arrowleaf balsamroot	BASA3	---	---	---	---	---	1-3	---
tapertip hawksbeard	CRAC2	---	---	---	---	---	1-3	---
antelope bitterbrush	PUTR2	5-10	2-10	---	---	15-25	---	---
low sagebrush	ARAR8	---	---	30-45	10-20	---	---	---
mountain big sagebrush	ARVA2	15-25	10-20	---	---	5-15	---	---
snowberry	SYMPH	---	---	---	---	---	2-5	---
threetip sagebrush	ARTR4	---	---	---	---	---	15-25	---

Range site number	023XY018NV	023XY007NV	023XY021NV	023XY017NV	023XY015NV	023XY053NV	none
Potential production (lb/acre):							
Favorable years	1200	1600	300	900	1500	1000	
Normal years	1000	1200	200	700	1200	800	
Unfavorable years	800	900	150	500	900	600	

1345--LONGCREEK-ZYMANS ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		LONGCREEK	ZYMANS	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	2-5	---	2-5	---	---
Cusick bluegrass	POCU3	---	---	5-10	---	---	---
Idaho fescue	FEID	---	---	30-50	---	---	---
Letterman needlegrass	STLE4	---	---	2-5	---	---	---
Thurber needlegrass	STH2	10-20	2-5	---	15-20	15-20	---
Webber ricegrass	STWE	---	---	---	---	5-15	---
basin wildrye	ELCI2	2-10	10-20	---	5-10	---	---
bluebunch wheatgrass	AGSP	40-60	20-40	2-5	30-40	15-30	---
bluegrass	POA++	---	---	---	---	2-10	---
bottlebrush squirreltail	SIHY	---	---	---	---	3-7	---
arrowleaf balsamroot	BASA3	---	---	1-3	---	---	---
balsamroot	BALSA	---	---	---	---	2-5	---
bluebells	MERTE	---	---	---	---	2-5	---
erigonum	ERIOG	---	---	---	---	2-5	---
phlox	PHLOX	---	---	---	---	2-5	---
tapertip hawksbeard	CRAC2	---	---	1-3	---	---	---
Douglas rabbitbrush	CHVI8	---	---	---	---	2-5	---
Wyoming big sagebrush	ARTRWQ	10-20	---	---	15-20	---	---
antelope bitterbrush	PUTR2	2-5	2-10	---	2-10	1-5	---
basin big sagebrush	ARTRTQ	---	---	---	15-20	---	---
big sagebrush	ARTR2	10-20	---	---	15-20	---	---
low sagebrush	ARAR8	---	---	---	---	15-25	---
mountain big sagebrush	ARVA2	10-20	5-15	---	15-20	---	---
rabbitbrush	CHRYS9	---	---	---	2-5	---	---
snowberry	SYMPH	---	---	2-5	---	---	---
threetip sagebrush	ARTR4	---	---	15-25	---	---	---
Range site number		023XY039NV	023XY041NV	023XY053NV	023XY020NV	023XY060NV	none
Potential production (lb/acre):							
Favorable years		900	1400	1000	1100	500	
Normal years		700	1200	800	900	375	
Unfavorable years		500	900	600	600	250	

1360--MIDRAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		MIDRAW	MIDRAW	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Sandberg bluegrass	POSE	---	2-5	2-5	2-8	2-5	---
Thurber needlegrass	STH2	40-50	15-25	15-25	15-30	15-25	---
Webber ricegrass	STWE	---	---	---	2-8	---	---
bluebunch wheatgrass	AGSP	2-10	25-40	25-40	20-40	25-40	---
globemallow	SPHAE	1-3	---	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	15-25	15-25	---	15-25	---
early sagebrush	ARLOS	---	---	---	---	---	---
low sagebrush	ARARS	---	---	---	---	---	---
sagebrush	ARTEM	---	---	---	20-30	---	---
spiny hopsage	GRSP	2-5	---	---	---	---	---
Range site number		024XY005NV	025XY019NV	025XY019NV	025XY018NV	025XY019NV	none
Potential production (lb/acre):							
Favorable years		800	800	800	800	800	
Normal years		600	600	600	600	600	
Unfavorable years		400	400	400	400	400	

1362--MIDRAW-HUNNTON ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		MIDRAW	MIDRAW	HUNNTON	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	10-15	5-15	5-15	---	10-15	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	2-5	2-5	---	---	---	---
Thurber needlegrass	STH2	2-8	20-40	20-40	10-20	2-8	---	---
Webber ricegrass	STWE	2-5	2-8	2-8	---	2-5	---	---
basin wildrye	ELCI2	---	2-5	2-5	2-10	---	---	40-60
bluebunch wheatgrass	AGSP	---	---	---	40-60	---	---	---
bottlebrush squirreltail	SIHY	2-5	---	---	---	2-5	---	---
desert needlegrass	STSP3	10-15	---	---	---	10-15	---	---
povertyweed	IVAX	---	---	---	---	---	---	2-5
thelypody	THELY	---	---	---	---	---	---	1-3
Wyoming big sagebrush	ARTRWQ	20-30	15-25	15-25	10-20	20-30	---	---
antelope bitterbrush	PUTR2	---	---	---	2-5	---	---	---
basin big sagebrush	ARTRQ	---	---	---	---	---	---	5-15
big sagebrush	ARTR2	---	---	---	10-20	---	---	---
mountain big sagebrush	ARVA2	---	---	---	10-20	---	---	---
spiny hopsage	GRSP	10-25	2-5	2-5	---	10-25	---	---
Range site number		023XY038NV	023XY006NV	023XY006NV	023XY039NV	023XY038NV	none	023XY005NV
Potential production (lb/acre):								
Favorable years		600	800	800	900	600		3000
Normal years		450	600	600	700	450		2000
Unfavorable years		300	400	400	500	300		1300

1371--DEVADA-VANWYPER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		DEVADA	DEVADA	VANWYPER	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Idaho fescue	FEID	---	---	---	30-50	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegrass	STH2	15-25	15-25	5-15	---	10-20	---
Webber ricegrass	STWE	5-10	5-10	---	---	---	---
basin wildrye	ELCI2	---	---	2-5	---	2-8	60-70
bluebunch wheatgrass	AGSP	15-20	15-20	40-60	15-30	20-35	---
bluegrass	POA++	2-8	2-8	2-8	2-10	2-10	---
mat muhly	MURI	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	---	2-5	---	---	---
balsamroot	BALSA	2-5	2-5	---	---	---	---
tapertip hawksbeard	CRAC2	---	---	2-5	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
antelope bitterbrush	PUTR2	---	---	---	2-5	2-8	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
big sagebrush	ARTR2	---	---	15-25	---	10-15	---
low sagebrush	ARAR8	25-35	25-35	---	15-25	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---

Range site number	024XY018NV	024XY018NV	024XY028NV	025XY017NV	025XY014NV	025XY003NV
Potential production (lb/acre):						
Favorable years	700	700	1000	900	1000	4500
Normal years	500	500	700	700	800	3500
Unfavorable years	300	300	500	400	600	2000

1380--GENAW-SOUGHE-ROCCONDA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		GENAW	SOUGHE	ROCCONDA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	2-8	---	---	---	---
Indian ricegrass	ORHY	10-15	5-15	---	10-20	---	10-15	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	2-5	2-8	---	---	---	---
Thurber needlegrass	STH2	2-8	20-40	5-15	---	---	2-8	---
Webber ricegrass	STWE	2-5	2-8	---	---	---	2-5	---
basin wildrye	ELCI2	---	2-5	---	---	---	---	40-60
bluebunch wheatgrass	AGSP	---	---	40-60	---	---	---	---
bluegrass	POA++	---	---	2-8	---	---	---	---
bottlebrush squirreltail	SIHY	2-5	---	---	5-10	---	2-5	---
desert needlegrass	STSP3	10-15	---	---	---	---	10-15	---
Hooker balsamroot	BAHO	---	---	2-5	---	---	---	---
povertyweed	IVAX	---	---	---	---	---	---	2-5
tapertip hawksbeard	CRAC2	---	---	1-2	---	---	---	---
thelypody	THELY	---	---	---	---	---	---	1-3
Wyoming big sagebrush	ARTRWQ	20-30	15-25	---	---	---	20-30	---
basin big sagebrush	ARTRTQ	---	---	---	---	---	---	5-15
bud sagebrush	ARSP5	---	---	---	5-15	---	---	---
sagebrush	ARTEM	---	---	10-20	---	---	---	---
shadscale	ATCO	---	---	---	40-50	---	---	---
spiny hopsage	GRSP	10-25	2-5	---	5-15	---	10-25	---
winterfat	EULA5	---	---	---	2-5	---	---	---

Range site number	023XY038NV	023XY006NV	023XY037NV	024XY065NV	none	023XY038NV	023XY005NV
Potential production (lb/acre):							
Favorable years	600	800	700	900		600	3000
Normal years	450	600	600	700		450	2000
Unfavorable years	300	400	400	500		300	1300

1381--GENAW-TRUNK-DEVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		GENAW	TRUNK	DEVADA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	5-10	---	---	---	---
Indian ricegrass	ORHY	5-15	5-15	---	10-15	25-35	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---	2-8
Sandberg bluegrass	POSE	2-5	2-5	5-10	---	---	---	---
Thurber needlegrass	STTH2	20-40	20-40	10-20	2-8	5-10	---	---
Webber ricegrass	STWE	2-8	2-8	---	2-5	---	---	---
basin wildrye	ELCI2	2-5	2-5	---	---	---	---	65-75
bluebunch wheatgrass	AGSP	---	---	20-50	---	---	---	---
bluegrass	POA++	---	---	5-10	---	---	---	---
bottlebrush squirreltail	SIHY	---	---	---	2-5	---	---	---
desert needlegrass	STSP3	---	---	---	10-15	---	---	---
globemallow	SPHAE	---	---	---	---	2-4	---	---
Douglas rabbitbrush	CHVI8	---	---	---	---	2-5	---	---
Wyoming big sagebrush	ARTRWQ	15-25	15-25	---	20-30	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	25-35	---	---
basin big sagebrush	ARTRTQ	---	---	---	---	---	---	5-10
low sagebrush	ARAR8	---	---	10-20	---	---	---	---
rubber rabbitbrush	CHNA2	---	---	---	---	---	---	1-3
shadscale	ATCO	---	---	---	---	2-5	---	---
spiny hopsage	GRSP	2-5	2-5	---	10-25	2-5	---	---
Range site number		023XY006NV	023XY006NV	023XY031NV	023XY038NV	024XY045NV	none	023XY009NV
Potential production (lb/acre):								
Favorable years		800	800	900	600	350		5500
Normal years		600	600	700	450	200		4500
Unfavorable years		400	400	500	300	100		2500

1382--GENAW-PUETT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		GENAW	PUETT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	2-8	10-15	15-30	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10	---
Sandberg bluegrass	POSE	2-8	---	---	---	---	---
Thurber needlegrass	STTH2	15-25	---	2-10	---	---	---
basin wildrye	ELCI2	---	---	---	5-10	60-70	---
bluebunch wheatgrass	AGSP	---	5-15	---	---	---	---
bottlebrush squirreltail	SIHY	2-5	---	2-5	---	---	---
desert needlegrass	STSP3	---	15-25	---	---	---	---
mat muhly	MURI	---	---	---	---	2-8	---
needleandthread	STCO4	---	---	15-25	30-40	---	---
streambank wheatgrass	AGDAR	---	---	---	---	2-8	---
globemallow	SPHAE	1-2	---	---	---	---	---
Wyoming big sagebrush	ARTRWQ	---	5-15	---	---	---	---
Wyoming big sagebrush	ARTRW	25-35	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	5-10	---
big sagebrush	ARTR2	---	---	25-35	15-25	---	---
ephedra	EPHED	---	2-8	---	---	---	---
horsebrush	TETRA3	---	---	2-5	---	---	---
purple sage	SADOC2	---	10-20	---	---	---	---
spiny hopsage	GRSP	5-15	---	---	1-5	---	---
Range site number		024XY020NV	023XY030NV	024XY058NV	024XY017NV	025XY003NV	none
Potential production (lb/acre):							
Favorable years		700	500	1300	900	4500	
Normal years		450	300	1000	700	3500	
Unfavorable years		300	150	700	500	2000	

1390--MULHOP-XINE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		MULHOP	XINE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Cusick bluegrass	POCU3	---	---	---	5-15	---	---
Idaho fescue	FEID	---	20-40	---	50-60	15-25	---
Indian ricegrass	ORHY	X	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegress	STTH2	X	2-8	---	---	---	---
Webber ricegrass	STWE	---	---	---	---	2-5	---
basin wildrye	ELCI2	---	2-15	---	---	---	60-70
bluebunch wheatgrass	AGSP	X	20-40	---	5-15	2-5	---
bluegrass	POA++	X	---	---	---	5-10	---
mat muhly	MURI	---	---	---	---	---	2-8
pine bluegrass	POSC	---	---	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
arrowleaf balsamroot	BASA3	---	1-5	---	---	---	---
goldenweed	HAPLO2	X	---	---	---	2-5	---
helianthella	HELIA	---	1-2	---	---	---	---
phlox	PHLOX	X	---	---	---	---	---
tapertip hawksbeard	CRAC2	---	1-5	---	---	---	---
white stoneseed	LIRU4	---	1-2	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
black sagebrush	ARARN	X	---	---	---	---	---
downy rabbitbrush	CHVIP4	X	---	---	---	---	---
low sagebrush	ARARS	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	15-25	---	5-15	---	---
sagebrush	ARTEM	---	---	---	---	25-40	---
snowberry	SYMPH	---	---	---	2-5	---	---
Utah juniper	JUOS	X	---	---	---	---	---

Range site number	025XY060NV	024XY021NV	none	024XY023NV	024XY016NV	025XY003NV
Potential production (lb/acre):						
Favorable years	400	1400		1500	350	4500
Normal years	275	1000		1200	250	3500
Unfavorable years	150	700		900	150	2000

1400--MADELINE-ANAWALT-VANWYPER ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		MADELINE	ANAWALT	VANWYPER	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	15-30	---	---	30-50	30-40	---	---
Nevada bluegrass	PONE3	---	---	---	---	2-5	---	5-10
Sandberg bluegrass	POSE	---	2-8	---	---	---	---	---
Thurber needlegrass	STH2	2-5	15-30	5-15	---	---	---	---
Webber ricegrass	STWE	---	2-8	---	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	---	5-10
basin wildrye	ELCI2	---	---	2-5	---	2-10	---	---
bluebunch wheatgrass	AGSP	10-20	20-40	60-80	15-30	15-30	---	---
bluegrass	POA++	---	---	---	2-10	---	---	---
sedge	CAREX	---	---	---	---	---	---	5-10
tufted hairgrass	DECE	---	---	---	---	---	---	30-60
Sierra clover	TRWO	---	---	---	---	---	---	2-5
arrowleaf balsamroot	BASA3	---	---	---	---	2-5	---	---
cinquefoil	POTEN	---	---	---	---	---	---	2-5
tapertip hawksbeard	CRAC2	---	---	---	---	2-5	---	---
Wyoming big sagebrush	ARTRW	---	---	5-15	---	---	---	---
antelope bitterbrush	PUTR2	20-40	---	1-5	2-5	5-10	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	15-25	---	---	---
mountain big sagebrush	ARVA2	5-10	---	---	---	10-20	---	---
sagebrush	ARTEM	---	20-30	---	---	---	---	---

Range site number	025XY007NV	025XY018NV	025XY015NV	025XY017NV	025XY012NV	none	025XY005NV
Potential production (lb/acre):							
Favorable years	2300	800	1000	900	1400		3000
Normal years	1400	600	700	700	1000		1700
Unfavorable years	900	400	500	400	700		1000

1410--SAY-TOSP-AYCAB ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		SAY	TOSP	AYCAB	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	---	2-5	---	---	---	2-8
Idaho fescue	FEID	2-5	X	2-10	---	---	5-15	---
Letterman needlegrass	STLE4	---	---	---	---	---	---	2-5
Nevada bluegrass	PONE3	2-5	---	2-5	---	---	---	---
Thurber needlegrass	STTH2	2-8	---	---	---	---	---	---
basin wildrye	ELCI2	5-10	---	---	---	---	---	---
big squirreltail	SIJU	---	---	---	2-5	---	---	---
bluebunch wheatgrass	AGSP	30-50	---	2-5	---	---	---	---
horsemint giant hyssop	AGUR	---	X	---	---	---	---	---
mountain brome	BRCA5	---	X	5-15	2-5	---	2-5	5-10
muttongrass	POFE	---	---	---	2-10	---	---	---
needlegrass	STIPA	---	---	---	2-10	---	---	---
sedge	CAREX	---	---	---	---	---	2-8	---
slender wheatgrass	AGTR	---	X	5-15	---	---	2-5	5-10
spike-fescue	LEKI2	---	---	2-10	---	---	20-30	---
carrotleaf lomatium	LODIM	---	---	2-5	---	---	---	---
geranium	GERAN	---	---	2-5	---	---	---	---
groundsel	SENEC	---	X	2-5	---	---	---	---
Utah serviceberry	AMUT	---	X	1-5	---	---	---	---
antelope bitterbrush	PUTR2	2-10	---	1-5	5-10	---	---	---
common chokecherry	PRVI	---	---	1-5	---	---	---	---
erigonum	ERIOG	---	---	---	---	---	2-5	---
mountain big sagebrush	ARVA2	5-15	---	5-15	15-25	---	15-25	---
quaking aspen	POTR5	---	---	---	---	---	---	50-60
snowberry	SYMPH	---	X	2-15	---	---	---	---
willow	SALIX	---	---	---	---	---	---	1-8
currleaf mountainmahogany	CELE3	---	---	---	30-40	---	---	---
quaking aspen	POTRT	---	X	---	---	---	---	---

Range site number	025XY009NV	025XY065NV	025XY004NV	023XY069NV	none	025XY076NV	025XY002NV
Potential production (lb/acre):							
Favorable years	1300	800	2800	2500		1000	1800
Normal years	900	600	1800	1800		700	1300
Unfavorable years	700	400	1200	1200		400	900

1411--SAY-AYCAB ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		SAY	AYCAB	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	2-5	---	---	2-8	---
Idaho fescue	FEID	2-5	2-10	---	---	---	---
Letterman needlegrass	STLE4	---	---	---	---	2-5	---
Nevada bluegrass	PONE3	2-5	2-5	---	---	---	5-10
Thurber needlegrass	STH2	2-8	---	---	---	---	---
basin wildrye	ELCI2	5-10	---	---	---	---	60-70
big squirreltail	SIJU	---	---	2-5	---	---	---
bluebunch wheatgrass	AGSP	30-50	2-5	---	---	---	---
mat muhly	MURI	---	---	---	---	---	2-8
mountain brome	BRCA5	---	5-15	2-5	---	5-10	---
muttongrass	POFE	---	---	2-10	---	---	---
needlegrass	STIPA	---	---	2-10	---	---	---
slender wheatgrass	AGTR	---	5-15	---	---	5-10	---
spike-fescue	LEKI2	---	2-10	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8
carrotleaf lomatium	LODIM	---	2-5	---	---	---	---
geranium	GERAN	---	2-5	---	---	---	---
groundsel	SENEC	---	2-5	---	---	---	---
Utah serviceberry	AMUT	---	1-5	---	---	---	---
antelope bitterbrush	PUTR2	2-10	1-5	5-10	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10
common chokecherry	PRVI	---	1-5	---	---	---	---
mountain big sagebrush	ARVA2	5-15	5-15	15-25	---	---	---
quaking aspen	POTR5	---	---	---	---	50-60	---
snowberry	SYMPH	---	2-15	---	---	---	---
willow	SALIX	---	---	---	---	1-8	---
curleaf mountainmahogany	CELE3	---	---	30-40	---	---	---

Range site number	025XY009NV	025XY004NV	023XY069NV	none	025XY002NV	025XY003NV
Potential production (lb/acre):						
Favorable years	1300	2800	2500		1800	4500
Normal years	900	1800	1800		1300	3500
Unfavorable years	700	1200	1200		900	2000

1420--PANLEE-BURRITA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		PANLEE	PANLEE	BURRITA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	10-15	5-15	---	---	15-30	---	---
Sandberg bluegrass	POSE	---	2-8	---	---	---	---	---
Thurber needlegrass	STH2	2-10	15-25	40-50	40-50	---	40-50	---
basin wildrye	ELCI2	---	---	---	---	5-10	---	---
bluebunch wheatgrass	AGSP	---	---	2-10	2-10	---	2-10	---
bottlebrush squirreltail	SIHY	2-5	2-5	---	---	---	---	---
needleandthread	STCO4	15-25	---	---	---	30-40	---	---
globemallow	SPHAE	---	1-2	1-3	1-3	---	1-3	---
Wyoming big sagebrush	ARTRW	---	25-35	25-35	25-35	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	25-35	---	---	---	15-25	---	---
horsebrush	TETRA3	2-5	---	---	---	---	---	---
spiny hopsage	GRSP	---	5-15	2-5	2-5	1-5	2-5	---
Range site number		024XY058NV	024XY020NV	024XY005NV	024XY005NV	024XY017NV	024XY005NV	none
Potential production (lb/acre):								
Favorable years		1300	700	800	800	900	800	
Normal years		1000	450	600	600	700	600	
Unfavorable years		700	300	400	400	500	400	

1421--PANLEE-DAVEY-SOUGHE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		PANLEE	DAVEY	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	10-15	15-30	---	5-15	15-30	---
Sandberg bluegrass	POSE	---	---	---	2-8	---	---
Thurber needlegrass	STH2	2-10	---	40-50	15-25	---	---
basin wildrye	ELCI2	---	5-10	---	---	5-10	---
bluebunch wheatgrass	AGSP	---	---	2-10	---	---	---
bottlebrush squirreltail	SIHY	2-5	---	---	2-5	---	---
needleandthread	STCO4	15-25	30-40	---	---	30-40	---
globemallow	SPHAE	---	---	1-3	1-2	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	25-35	15-25	---	---	15-25	---
horsebrush	TETRA3	2-5	---	---	---	---	---
spiny hopsage	GRSP	---	1-5	2-5	5-15	1-5	---
Range site number		024XY058NV	024XY017NV	024XY005NV	024XY020NV	024XY017NV	none
Potential production (lb/acre):							
Favorable years		1300	900	800	700	900	
Normal years		1000	700	600	450	700	
Unfavorable years		700	500	400	300	500	

1423--PANLEE-VANWYPER-CARSTUMP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		PANLEE	VANWYPER	CARSTUMP	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---	---
Indian ricegrass	ORHY	10-15	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	---	---	---
Thurber needlegrass	STTH2	2-10	5-15	10-20	40-50	40-50	---
basin wildrye	ELCI2	---	2-5	2-8	---	---	---
bluebunch wheatgrass	AGSP	---	40-60	20-35	2-10	2-10	---
bluegrass	POA++	---	2-8	2-10	---	---	---
bottlebrush squirreltail	SIHY	2-5	---	---	---	---	---
needleandthread	STCO4	15-25	---	---	---	---	---
arrowleaf balsamroot	BASA3	---	2-5	---	---	---	---
globemallow	SPHA2	---	---	---	1-3	1-3	---
tapertip hawksbeard	CRAC2	---	2-5	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	25-35	---
antelope bitterbrush	PUR2	---	---	2-8	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	25-35	15-25	10-15	---	---	---
horsebrush	TETRA3	2-5	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
spiny hopsage	GRSP	---	---	---	2-5	2-5	---
Range site number		024XY050NV	024XY020NV	025XY014NV	024XY005NV	024XY005NV	none
Potential production (lb/acre):							
Favorable years		1300	1000	1000	800	800	
Normal years		1000	700	800	600	600	
Unfavorable years		700	500	600	400	400	

1431--RODOCK-HUNNTON ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		RODOCK	HUNNTON	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	2-8	---
Thurber needlegrass	STH2	20-30	40-50	15-20	---	---
Webber ricegrass	STWE	---	---	5-15	---	---
basin wildrye	ELCI2	2-5	---	---	65-75	---
bluebunch wheatgrass	AGSP	30-40	2-10	15-30	---	---
bluegrass	POA++	2-8	---	2-10	---	5-10
bottlebrush squirreltail	SIHY	---	---	3-7	---	---
mannagrass	GLYCE	---	---	---	---	5-10
meadow barley	HOB2	---	---	---	---	5-10
rush	JUNCU	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	5-10
tufted hairgrass	DECE	---	---	---	---	30-50
halsanroot	BALSA	---	---	2-5	---	---
bluebells	MERTE	---	---	2-5	---	---
eriogonum	ERIOG	---	---	2-5	---	---
globemallow	SPHAE	---	1-3	---	---	---
phlox	PHLOX	---	---	2-5	---	---
Douglas rabbitbrush	CHVI8	---	---	2-5	---	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---	---
antelope bitterbrush	PUTR2	---	---	1-5	---	---
basin big sagebrush	ARTRTQ	---	---	---	5-10	---
basin big sagebrush	ARTRT	---	---	---	---	---
big sagebrush	ARTR2	10-15	---	---	---	---
low sagebrush	ARAR8	---	---	15-25	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---
rubber rabbitbrush	CHNA2	---	---	---	1-3	---
spiny hopsage	GRSP	---	2-5	---	---	---

Range site number	024XY013NV	024XY005NV	023XY060NV	023XY009NV	023XY025NV
Potential production (lb/acre):					
Favorable years	1000	800	500	5500	4000
Normal years	800	600	375	4500	3000
Unfavorable years	600	400	250	2500	2000

1432--RODOCK-CONNEL COMPLEX, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		RODOCK	CONNEL	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---
Indian ricegrass	ORHY	---	---	---	---	2-5
Nevada bluegrass	PONE3	---	---	5-10	---	---
Thurber needlegrass	STTH2	20-30	40-50	---	---	---
basin wildrye	ELCI2	2-5	---	60-70	55-65	5-20
bluebunch wheatgrass	AGSP	30-40	2-10	---	---	---
bluegrass	POA++	2-8	---	---	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	2-5
creeping wildrye	ELTR3	---	---	---	5-15	---
mat muhly	MURI	---	---	2-8	---	---
streambank wheatgrass	AGDAR	---	---	2-8	---	---
western wheatgrass	AGSM	---	---	---	5-15	---
globemallow	SPHAE	---	1-3	---	---	1-2
thelypody	THELY	---	---	---	---	2-4
Wyoming big sagebrush	ARTRW	---	25-35	---	---	---
basin big sagebrush	ARTRT	---	---	5-10	10-15	---
big sagebrush	ARTR2	10-15	---	---	---	10-25
black greasewood	SAVE4	---	---	---	2-8	20-30
mountain big sagebrush	ARVA2	---	---	---	---	---
spiny hopsage	GRSP	---	2-5	---	---	5-15
Range site number		024XY013NV	024XY005NV	025XY003NV	024XY006NV	024XY022NV
Potential production (lb/acre):						
Favorable years		1000	800	4500	1500	800
Normal years		800	600	3500	1100	600
Unfavorable years		600	400	2000	600	350

1433--RODOCK GRAVELLY SANDY LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

		Percentage composition and production (dry weight) of plants on major soils and inclusions			
Common plant name	Plant symbol	Soil name or Inclusion number--			
		RODOCK	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	5-10
Thurber needlegrass	STH2	20-30	40-50	---	---
basin wildrye	ELCI2	2-5	---	55-65	60-70
bluebunch wheatgrass	AGSP	30-40	2-10	---	---
bluegrass	POA++	2-8	---	---	---
creeping wildrye	ELTR3	---	---	5-15	---
mat muhly	MURI	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	2-8
western wheatgrass	AGSM	---	---	5-15	---
globemallow	SPHAE	---	1-3	---	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---
basin big sagebrush	ARTRT	---	---	10-15	5-10
big sagebrush	ARTR2	10-15	---	---	---
black greasewood	SAVE4	---	---	2-8	---
mountain big sagebrush	ARVA2	---	---	---	---
spiny hopsage	GRSP	---	2-5	---	---
Range site number		024XY013NV	024XY005NV	024XY006NV	025XY003NV
Potential production (lb/acre):					
Favorable years		1000	800	1500	4500
Normal years		800	600	1100	3500
Unfavorable years		600	400	600	2000

1436--RODOCK LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		RODOCK	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	5-10	---	5-10	5-15
Thurber needlegrass	STTH2	---	40-50	---	---
basin wildrye	ELCI2	60-70	---	60-70	---
bluebunch wheatgrass	AGSP	---	2-10	---	---
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	---	---	---	2-5
mat muhly	MURI	2-8	---	2-8	2-5
sedge	CAREX	---	---	---	2-10
streambank wheatgrass	AGDAR	2-8	---	2-8	---
wildrye	ELYMU	---	---	---	60-80
globemallow	SPHAE	---	1-3	---	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---
basin big sagebrush	ARTRT	5-10	---	5-10	---
spiny hopsage	GRSP	---	2-5	---	---
willow	SALIX	---	---	---	5-10
Range site number		025XY003NV	024XY005NV	025XY003NV	025XY001NV
Potential production (lb/acre):					
Favorable years		4500	800	4500	3500
Normal years		3500	600	3500	2500
Unfavorable years		2000	400	2000	1800

1437--RODOCK VERY FINE SANDY LOAM, SLIGHTLY SALINE, 0 TO 2 PERCENT SLO

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		RODOCK	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	---	---	5-15	---
Nevada bluegrass	PONE3	---	5-10	---	5-15
Sandberg bluegrass	POSE	---	---	2-8	---
Thurber needlegrass	STH2	---	---	15-25	---
basin wildrye	ELCI2	55-65	60-70	---	---
bottlebrush squirreltail	SIHY	---	---	2-5	---
creeping wildrye	ELTR3	5-15	---	---	---
inland saltgrass	DISP2	---	---	---	2-5
mat muhly	MURI	---	2-8	---	2-5
sedge	CAREX	---	---	---	2-10
streambank wheatgrass	AGDAR	---	2-8	---	---
western wheatgrass	AGSM	5-15	---	---	---
wildrye	ELYMU	---	---	---	60-80
globemallow	SPHAE	---	---	1-2	---
Wyoming big sagebrush	ARTRW	---	---	25-35	---
basin big sagebrush	ARTRT	10-15	5-10	---	---
black greasewood	SAVE4	2-8	---	---	---
spiny hopsage	GRSP	---	---	5-15	---
willow	SALIX	---	---	---	5-10

Range site number	024XY006NV	025XY003NV	024XY020NV	025XY001NV
Potential production (lb/acre):				
Favorable years	1500	4500	700	3500
Normal years	1100	3500	450	2500
Unfavorable years	600	2000	300	1800

1450--WISKAN-CLIMINE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		WISKAN	CLIMINE	Inclusion 1	Inclusion 2
Cusick bluegrass	POCU3	---	2-8	---	---
Idaho fescue	FEID	---	30-50	15-25	20-40
Indian ricegrass	ORHY	2-5	---	---	---
Sandberg bluegrass	POSE	---	---	---	---
Thurber needlegrass	STTH2	10-20	---	---	2-8
Webber ricegrass	STWE	---	---	2-5	---
basin wildrye	ELCI2	---	---	---	2-15
bluebunch wheatgrass	AGSP	20-35	10-30	2-5	20-40
bluegrass	POA++	---	---	5-10	---
pine bluegrass	POSC	---	---	---	---
arrowleaf balsamroot	BASA3	---	---	---	1-5
goldenweed	HAPLO2	---	---	2-5	---
helianthella	HELIA	---	---	---	1-2
tapertip hawkbeard	CRAC2	---	2-5	---	1-5
white stoneseed	LIRU4	---	---	---	1-2
black sagebrush	ARAR1	25-35	---	---	---
low sagebrush	ARAR8	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	15-25
sagebrush	ARTEM	---	---	25-40	---
threetip sagebrush	ARTR4	---	15-25	---	---
Range site number		024XY031NV	024XY046NV	024XY016NV	024XY021NV
Potential production (lb/acre):					
Favorable years		700	1100	350	1400
Normal years		500	900	250	1000
Unfavorable years		300	600	150	700

1460--NINEMILE-RELUCTAN-ANAWALT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	RELUCTAN	ANAWALT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	5-10	5-10	---	---	2-8	---
Cusick bluegrass	POCU3	---	---	---	---	---	2-8	---
Idaho fescue	FEID	30-40	30-40	---	---	---	30-40	---
Nevada bluegrass	PONE3	---	5-10	---	---	---	---	---
Sandberg bluegrass	POSE	2-8	---	5-10	30-45	---	---	---
Thurber needlegrass	STTH2	2-5	---	10-20	---	5-10	2-8	---
Webber ricegrass	STWE	---	---	---	2-5	---	---	---
basin wildrye	ELCI2	2-5	2-5	---	---	2-10	5-15	---
bluebunch wheatgrass	AGSP	20-30	2-5	20-50	---	50-70	15-35	---
bluegrass	POA++	2-8	5-10	5-10	---	---	2-8	---
western needlegrass	STOC2	---	15-25	---	---	---	---	---
antelope bitterbrush	PUTR2	---	5-15	---	---	2-5	2-10	---
low sagebrush	ARAR8	10-20	---	10-20	30-45	---	---	---
mountain big sagebrush	ARVA2	---	5-20	---	---	5-15	10-20	---
serviceberry	AMELA	---	2-5	---	---	---	---	---
snowberry	SYMPH	---	2-5	---	---	---	---	---

Range site number	023XY017NV	023XY066NV	023XY031NV	023XY021NV	023XY016NV	023XY007NV	none
Potential production (lb/acre):							
Favorable years	900	1300	900	300	1500	1600	
Normal years	700	1100	700	200	1100	1200	
Unfavorable years	500	900	500	150	800	900	

1461--NINEMILE-TUSEL-ALYAN ASSOCIATION, COOL

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	TUSEL	ALYAN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	---	2-8	---	---	---	---
Cusick bluegrass	POCU3	---	---	2-8	---	---	---	---
Idaho fescue	FEID	30-40	2-10	30-40	---	---	---	---
Letterman needlegrass	STLE4	---	2-5	---	---	---	---	---
Nevada bluegrass	PONE3	---	2-5	---	---	---	---	---
Sandberg bluegrass	POSE	2-8	---	---	---	30-45	---	---
Thurber needlegrass	STTH2	2-5	---	2-8	5-10	---	---	---
Webber ricegrass	STWE	---	---	---	---	2-5	---	---
basin wildrye	ELCI2	2-5	---	5-15	2-10	---	---	---
blue wildrye	ELGL	---	2-5	---	---	---	---	---
bluebunch wheatgrass	AGSP	20-30	2-5	15-35	50-70	---	---	---
bluegrass	POA++	2-8	---	2-8	---	---	---	5-10
mannagrass	GLYCE	---	---	---	---	---	---	5-10
meadow barley	HOBRA2	---	---	---	---	---	---	5-10
mountain brome	BRCAS	---	5-15	---	---	---	---	---
purple oniongrass	MESP	---	2-5	---	---	---	---	---
rush	JUNCU	---	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	---	5-10
slender wheatgrass	AGTR	---	5-15	---	---	---	---	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-50
carrotleaf lomatium	LODIM	---	2-5	---	---	---	---	---
clover	TRIFO	---	2-5	---	---	---	---	---
geranium	GERAN	---	2-10	---	---	---	---	---
groundsel	SENEC	---	2-10	---	---	---	---	---
horsemint giant hyssop	AGUR	---	2-5	---	---	---	---	---
antelope bitterbrush	PUTR2	---	2-5	2-10	2-5	---	---	---
common chokecherry	PRVI	---	2-5	---	---	---	---	---
elderberry	SAMBU	---	2-5	---	---	---	---	---
low sagebrush	ARAR8	10-20	---	---	---	30-45	---	---
mountain big sagebrush	ARVA2	---	---	10-20	5-15	---	---	---
quaking aspen	POTRT	---	2-5	---	---	---	---	---
snowberry	SYMPH	---	2-10	---	---	---	---	---
Range site number		023XY017NV	023XY065NV	023XY007NV	023XY016NV	023XY021NV	none	023XY025NV
Potential production (lb/acre):								
Favorable years		900	2600	1600	1500	300		4000
Normal years		700	1800	1200	1100	200		3000
Unfavorable years		500	1400	900	800	150		2000

1462--NINEMILE-ANAWALT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	ANAWALT	ANAWALT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	5-10	---	---	5-10	---	---
Columbia needlegrass	STNE3	---	---	---	---	10-20	---	---
Idaho fescue	FEID	30-40	---	---	---	2-5	---	---
Nevada bluegrass	PONE3	---	---	---	---	5-10	---	2-8
Sandberg bluegrass	POSE	2-8	5-10	30-45	---	---	---	---
Thurber needlegrass	STTH2	2-5	10-20	---	5-10	---	---	---
Webber ricegrass	STWE	---	---	2-5	---	---	---	---
basin wildrye	ELCI2	2-5	---	---	---	5-10	---	65-75
bluebunch wheatgrass	AGSP	20-30	20-50	---	40-60	---	---	---
bluegrass	POA++	2-8	5-10	---	---	5-10	---	---
mountain brome	BRCA5	---	---	---	---	20-40	---	---
needlegrass	STIPA	---	---	---	---	10-20	---	---
western needlegrass	STOC2	---	---	---	---	10-20	---	---
arrowleaf balsamroot	BASA3	---	---	---	1-2	---	---	---
tapertip hawkbeard	CRAC3	---	---	---	1-2	---	---	---
antelope bitterbrush	FUTR2	---	---	---	5-10	---	---	---
basin big sagebrush	ARTRTQ	---	---	---	---	---	---	5-10
low sagebrush	ARAR8	10-20	10-20	30-45	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	15-25	10-20	---	---
rubber rabbitbrush	CHNA2	---	---	---	---	---	---	1-3
snowberry	SYMPH	---	---	---	---	2-5	---	---

Range site number	023XY017NV	023XY031NV	023XY021NV	023XY042NV	023XY019NV	none	023XY009NV
Potential production (lb/acre):							
Favorable years	900	900	300	1000	2200		5500
Normal years	700	700	200	800	1800		4500
Unfavorable years	500	500	150	600	1500		2500

1464--NINEMILE-ANAWALT-SUMINE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	ANAWALT	SUMINE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	5-10	---	---	2-8	---	---
Cusick bluegrass	POCU3	---	---	---	---	2-8	---	---
Idaho fescue	FEID	30-40	---	---	2-10	30-40	---	---
Letterman needlegrass	STLE4	---	---	---	2-5	---	---	---
Nevada bluegrass	PONE3	---	---	---	2-5	---	---	---
Sandberg bluegrass	POSE	2-8	5-10	---	---	---	---	---
Thurber needlegrass	STTH2	2-5	10-20	5-10	---	2-8	---	---
basin wildrye	ELCI2	2-5	---	2-10	---	5-15	---	---
blue wildrye	ELGL	---	---	---	2-5	---	---	---
bluebunch wheatgrass	AGSP	20-30	20-50	50-70	2-5	15-35	---	---
bluegrass	POA++	2-8	5-10	---	---	2-8	5-10	---
mannagrass	GLYCE	---	---	---	---	---	5-10	---
meadow barley	HOB2	---	---	---	---	---	5-10	---
mountain brome	BRCA5	---	---	---	5-15	---	---	---
purple oniongrass	MESP	---	---	---	2-5	---	---	---
rush	JUNCU	---	---	---	---	---	5-10	---
sedge	CAREX	---	---	---	---	---	5-10	---
slender wheatgrass	AGTR	---	---	---	5-15	---	---	---
tufted hairgrass	DECE	---	---	---	---	---	30-50	---
carrotleaf lomatium	LODIM	---	---	---	2-5	---	---	---
clover	TRIFO	---	---	---	2-5	---	---	---
geranium	GERAN	---	---	---	2-10	---	---	---
groundsel	SENEC	---	---	---	2-10	---	---	---
horsemint giant hyssop	AGUR	---	---	---	2-5	---	---	---
antelope bitterbrush	PUTR2	---	---	2-5	2-5	2-10	---	---
common chokecherry	PRVI	---	---	---	2-5	---	---	---
elderberry	SAMBU	---	---	---	2-5	---	---	---
low sagebrush	ARAR8	10-20	10-20	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	5-15	---	10-20	---	---
quaking aspen	POTRT	---	---	---	2-5	---	---	---
snowberry	SYMPH	---	---	---	2-10	---	---	---

Range site number	023XY017NV	023XY031NV	023XY016NV	023XY065NV	023XY007NV	023XY025NV	none
Potential production (lb/acre):							
Favorable years	900	900	1500	2600	1600	4000	
Normal years	700	700	1100	1800	1200	3000	
Unfavorable years	500	500	800	1400	900	2000	

1465--NINEMILE-CLEAVAGE-TUSEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	CLEAVAGE	TUSEL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	---	2-5	---	---	---	---
Idaho fescue	FEID	30-50	15-30	2-10	---	2-5	X	---
Nevada bluegrass	PONE3	---	---	2-5	---	2-5	---	5-10
Thurber needlegrass	STTH2	---	---	---	---	2-8	---	---
basin wildrye	ELCI2	---	---	---	---	5-10	---	60-70
bluebunch wheatgrass	AGSP	15-30	---	2-5	---	30-50	---	---
bluegrass	POA++	2-10	5-15	---	---	---	---	---
horsemint giant hyssop	AGUR	---	---	---	---	---	X	---
mat muhly	MURI	---	---	---	---	---	---	2-8
mountain brome	BRCAS	---	---	5-15	---	---	X	---
slender wheatgrass	AGTR	---	---	5-15	---	---	X	---
spike-fescue	LEKI2	---	---	2-10	---	---	---	---
streambank wheatgrass	AGDAR	---	---	---	---	---	---	2-8
carrotleaf lomatium	LODIM	---	---	2-5	---	---	---	---
geranium	GERAN	---	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	2-5	---	---	---	---	---
groundsel	SENEC	---	---	2-5	---	---	X	---
Utah serviceberry	AMUT	---	---	1-5	---	---	X	---
antelope bitterbrush	PUTR2	2-5	---	1-5	---	2-10	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	5-10
black sagebrush	ARARN	---	---	---	---	---	---	---
common chokecherry	PRVI	---	---	1-5	---	---	---	---
low sagebrush	ARAR8	15-25	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	---	5-15	---	5-15	---	---
sagebrush	ARTEM	---	30-35	---	---	---	---	---
snowberry	SYMPH	---	---	2-15	---	---	X	---
quaking aspen	POTRT	---	---	---	---	---	X	---

Range site number	025XY017NV	025XY024NV	025XY004NV	none	025XY009NV	025XY065NV	025XY003NV
Potential production (lb/acre):							
Favorable years	900	400	2800		1300	800	4500
Normal years	700	275	1800		900	600	3500
Unfavorable years	400	150	1200		700	400	2000

1466--NINEMILE-BULLUMP-TUSEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	BULLUMP	TUSEL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	---	2-5	---	---	---	---
Idaho fescue	FEID	30-50	2-10	2-10	15-30	X	---	---
Letterman needlegrass	STLE4	---	2-5	---	---	---	---	---
Nevada bluegrass	PONE3	---	2-5	2-5	---	---	---	40-60
alpine timothy	PHAL2	---	---	---	---	---	---	20-40
basin wildrye	ELCT2	---	5-15	---	---	---	---	2-8
bluebunch wheatgrass	AGSP	15-30	30-50	2-5	---	---	---	---
bluegrass	POA++	2-10	---	---	5-15	---	---	---
horsemint giant hysop	AGUR	---	---	---	---	X	---	---
mat muhly	MURI	---	---	---	---	---	---	2-8
meadow barley	HOBR2	---	---	---	---	---	---	2-5
mountain brome	BRCA5	---	20-40	5-15	---	X	---	---
sedge	CAREX	---	---	---	---	---	---	2-8
slender wheatgrass	AGTR	---	---	5-15	---	X	---	---
spike-fescue	LEKI2	---	2-5	2-10	---	---	---	---
carrotleaf lomatium	LODIM	---	---	2-5	---	---	---	---
geranium	GERAN	---	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---	---
groundsel	SENEC	---	---	2-5	---	X	---	---
Utah serviceberry	AMUT	---	---	1-5	---	X	---	---
antelope bitterbrush	PUTR2	2-5	5-10	1-5	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
common chokecherry	PRV1	---	---	1-5	---	---	---	---
low sagebrush	ARAR8	15-25	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	5-15	5-15	---	---	---	---
sagebrush	ARTEM	---	---	---	30-35	---	---	---
snowberry	SYMPH	---	---	2-15	---	X	---	---
quaking aspen	POTRT	---	---	---	---	X	---	---

Range site number	025XY017NV	025XY016NV	025XY004NV	025XY024NV	025XY065NV	none	025XY006NV
Potential production (lb/acre):							
Favorable years	900	2000	2800	400	800		2000
Normal years	700	1400	1800	275	600		1300
Unfavorable years	400	1000	1200	150	400		800

1467--NINEMILE-UDELOPE-TUSEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	UDELOPE	TUSEL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	---	2-5	5-10	---	---	---
Idaho fescue	FEID	30-50	15-25	2-10	2-5	X	---	15-30
Nevada bluegrass	PONE3	---	---	2-5	---	---	---	---
Thurber needlegrass	STTH2	---	---	---	---	---	---	---
bluebunch wheatgrass	AGSP	15-30	5-15	2-5	---	---	---	---
bluegrass	POA++	2-10	2-5	---	2-5	---	---	5-15
horsemint giant hyssop	AGUR	---	---	---	---	X	---	---
mountain brome	BRCA5	---	---	5-15	2-5	X	---	---
needlegrass	STIPA	---	2-8	---	---	---	---	---
slender wheatgrass	AGTR	---	---	5-15	2-5	X	---	---
spike-fescue	LEKI2	---	---	2-10	---	---	---	---
western needlegrass	STOC2	---	---	---	---	---	---	---
carrotleaf lomatium	LODIM	---	---	2-5	---	---	---	---
geranium	GERAN	---	---	2-5	---	---	---	---
goldenweed	HAPLO2	---	---	---	---	---	---	2-5
groundsel	SENEC	---	---	2-5	---	X	---	---
Utah serviceberry	AMUT	---	---	1-5	---	X	---	---
antelope bitterbrush	PUTR2	2-5	2-5	1-5	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---	---
common chokecherry	PRVI	---	---	1-5	---	---	---	---
curlleaf mountainmahogany	CELE3	---	---	---	50-70	---	---	---
low sagebrush	ARAR8	15-25	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	5-15	5-15	---	---	---	---
mountain snowberry	SYOR2	---	---	---	2-5	---	---	---
sagebrush	ARTEM	---	---	---	---	---	---	30-35
snowberry	SYMPH	---	2-8	2-15	---	X	---	---
quaking aspen	POTRT	---	---	---	---	X	---	---

Range site number	025XY017NV	025XY071NV	025XY004NV	025XY030NV	025XY065NV	none	025XY024NV
Potential production (lb/acre):							
Favorable years	900	1700	2800	3000	800		400
Normal years	700	1300	1800	2400	600		275
Unfavorable years	400	900	1200	1700	400		150

1468--NINEMILE-SOFTSCRABBLE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	SOFTSCRABBLE	NINEMILE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Idaho fescue	FEID	30-50	30-40	30-50	15-30	15-25	X	---
Nevada bluegrass	PONE3	---	2-5	---	---	---	---	40-60
Thurber needlegrass	STTH2	---	---	---	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	---	20-40
basin wildrye	ELCI2	---	2-10	---	---	---	---	2-8
bluebunch wheatgrass	AGSP	15-30	15-30	15-30	---	5-15	---	---
bluegrass	POA++	2-10	---	2-10	5-15	2-5	---	---
horsemint giant hyssop	AGUR	---	---	---	---	---	X	---
mat muhly	MURI	---	---	---	---	---	---	2-8
meadow barley	HOBR2	---	---	---	---	---	---	2-5
mountain brome	BRCA5	---	---	---	---	---	X	---
needlegrass	STIPA	---	---	---	---	2-8	---	---
sedge	CAREX	---	---	---	---	---	---	2-8
slender wheatgrass	AGTR	---	---	---	---	---	X	---
western needlegrass	STOC2	---	---	---	---	---	---	---
arrowleaf balsamroot	BASA3	---	2-5	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---	---
groundsel	SENEC	---	---	---	---	---	X	---
tapertip hawksbeard	CRAC2	---	2-5	---	---	---	---	---
Utah serviceberry	AMUT	---	---	---	---	---	X	---
antelope bitterbrush	PUTR2	2-5	5-10	2-5	---	2-5	---	---
black sagebrush	ARAR8	---	---	---	---	---	---	---
low sagebrush	ARAR8	15-25	---	15-25	---	---	---	---
mountain big sagebrush	ARVA2	---	10-20	---	---	5-15	---	---
sagebrush	ARTEM	---	---	---	30-35	---	---	---
snowberry	SYMPH	---	---	---	---	2-8	X	---
quaking aspen	POTRT	---	---	---	---	---	X	---

Range site number	025XY017NV	025XY012NV	025XY017NV	025XY024NV	025XY071NV	025XY065NV	025XY006NV
Potential production (lb/acre):							
Favorable years	900	1400	900	400	1700	800	2000
Normal years	700	1000	700	275	1300	600	1300
Unfavorable years	400	700	400	150	900	400	800

1469--NINEMILE-SOFTSCRABBLE-SUMINE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		NINEMILE	SOFTSCRABBLE	SUMINE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	---	---	---	---	2-5	---	---
Idaho fescue	FEID	30-50	30-40	2-5	15-25	2-10	X	---
Nevada bluegrass	PONE3	---	2-5	2-5	---	2-5	---	---
Thurber needlegrass	STTH2	---	---	2-8	---	---	---	---
basin wildrye	ELCI2	---	2-10	5-10	---	---	---	---
bluebunch wheatgrass	AGSP	15-30	15-30	30-50	5-15	2-5	---	---
bluegrass	POA++	2-10	---	---	2-5	---	---	---
horsemint giant hyssop	AGUR	---	---	---	---	---	X	---
mountain brome	BRCA5	---	---	---	---	5-15	X	---
needlegrass	STIPA	---	---	---	2-8	---	---	---
slender wheatgrass	AGTR	---	---	---	---	5-15	X	---
spike-fescue	LEKI2	---	---	---	---	2-10	---	---
western needlegrass	STOC2	---	---	---	---	---	---	---
arrowleaf balsamroot	BASA3	---	2-5	---	---	---	---	---
carrotleaf lomatium	LODIM	---	---	---	---	2-5	---	---
geranium	GERAN	---	---	---	---	2-5	---	---
groundsel	SENEC	---	---	---	---	2-5	X	---
tapertip hawkbeard	CRAC2	---	2-5	---	---	---	---	---
Utah serviceberry	AMUT	---	---	---	---	1-5	X	---
antelope bitterbrush	PUTR2	2-5	5-10	2-10	2-5	1-5	---	---
common chokecherry	PRVI	---	---	---	---	1-5	---	---
low sagebrush	ARAR8	15-25	---	---	---	---	---	---
mountain big sagebrush	ARVA2	---	10-20	5-15	5-15	5-15	---	---
snowberry	SYMPH	---	---	---	2-8	2-15	X	---
quaking aspen	POTRT	---	---	---	---	---	X	---

Range site number	025XY017NV	025XY012NV	025XY009NV	025XY071NV	025XY004NV	025XY065NV	none
Potential production (lb/acre):							
Favorable years	900	1400	1300	1700	2800	800	
Normal years	700	1000	900	1300	1800	600	
Unfavorable years	400	700	700	900	1200	400	

1470--ZYMANS-BURRITA-DEVADA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ZYMANS	BURRITA	DEVADA	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-5	---	---	---	---	2-5	---
Sandberg bluegrass	POSE	---	---	30-45	---	2-10	---	---
Thurber needlegrass	STH2	15-20	40-50	---	---	10-20	15-20	---
Webber ricegrass	STWE	---	---	2-5	---	5-10	---	---
basin wildrye	ELCI2	5-10	---	---	---	---	5-10	55-65
bluebunch wheatgrass	AGSP	30-40	2-10	---	---	20-30	30-40	---
creeping wildrye	ELTR3	---	---	---	---	---	---	5-15
western wheatgrass	AGSM	---	---	---	---	---	---	5-15
balsamroot	BALSA	---	---	---	---	2-5	---	---
globemallow	SPHAE	---	1-3	---	---	---	---	---
Wyoming big sagebrush	ARTRWQ	15-20	---	---	---	---	15-20	---
Wyoming big sagebrush	ARTRW	---	25-35	---	---	---	---	---
antelope bitterbrush	PUTR2	2-10	---	---	---	---	2-10	---
basin big sagebrush	ARTRTQ	15-20	---	---	---	---	15-20	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	10-15
big sagebrush	ARTR2	15-20	---	---	---	---	15-20	---
black greasewood	SAVE4	---	---	---	---	---	---	2-8
low sagebrush	ARAR8	---	---	30-45	---	25-35	---	---
mountain big sagebrush	ARVA2	15-20	---	---	---	---	15-20	---
rabbitbrush	CHRY9	2-5	---	---	---	---	2-5	---
spiny hopsage	GRSP	---	2-5	---	---	---	---	---
Range site number		023XY020NV	024XY005NV	023XY021NV	none	025XY022NV	023XY020NV	024XY006NV
Potential production (lb/acre):								
Favorable years		1100	800	300		600	1100	1500
Normal years		900	600	200		400	900	1100
Unfavorable years		600	400	150		250	600	600

1471--ZYMANS-BURRITA-SOUGHE ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		ZYMANS	BURRITA	SOUGHE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-5	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---	---
Indian ricegrass	ORHY	---	---	---	---	---	---	5-15
Sandberg bluegrass	POSE	---	---	---	---	---	2-8	2-8
Thurber needlegrass	STH2	15-20	20-30	40-50	---	20-30	15-30	15-25
Webber ricegrass	STWE	---	---	---	---	---	2-8	---
basin wildrye	ELCI2	5-10	---	---	---	2-5	---	---
bluebunch wheatgrass	AGSP	30-40	20-35	2-10	---	30-40	20-40	---
bluegrass	POA++	---	---	---	---	2-8	---	---
bottlebrush squirreltail	SIHY	---	---	---	---	---	---	2-5
arrowleaf balsamroot	BASA3	---	2-5	---	---	---	---	---
globemallow	SPHA2	---	---	1-3	---	---	---	1-2
tapertip hawksbeard	CRAC2	---	2-5	---	---	---	---	---
Wyoming big sagebrush	ARTRWQ	15-20	---	---	---	---	---	---
Wyoming big sagebrush	ARTRW	---	---	25-35	---	---	---	25-35
antelope bitterbrush	PUTR2	2-10	---	---	---	---	---	---
basin big sagebrush	ARTRTQ	15-20	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---	---
big sagebrush	ARTR2	15-20	15- 25	---	---	10-15	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---	---
mountain big sagebrush	ARVA2	15-20	---	---	---	---	---	---
rabbitbrush	CHRY59	2-5	---	---	---	---	---	---
sagebrush	ARTEM	---	---	---	---	---	20-30	---
spiny hopsage	GRSP	---	---	2-5	---	---	---	5-15

Range site number	023XY020NV	024XY035NV	024XY005NV	none	024XY013NV	025XY018NV	024XY020NV
Potential production (lb/acre):							
Favorable years	1100	500	800		1000	800	700
Normal years	900	400	600		800	600	450
Unfavorable years	600	250	400		600	400	300

1472--ZYMANS-BURRITA ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ZYMANS	ZYMANS	BURRITA	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	2-5	2-5	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	2-8
Thurber needlegrass	STTH2	15-20	15-20	10-20	40-50	---	---
basin wildrye	ELCI2	5-10	5-10	2-10	---	---	65-75
bluebunch wheatgrass	AGSP	30-40	30-40	40-60	2-10	---	---
globemallow	SPHAE	---	---	---	1-3	---	---
Wyoming big sagebrush	ARTRWQ	15-20	15-20	10-20	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	---	---
antelope bitterbrush	PUTR2	2-10	2-10	2-5	---	---	---
basin big sagebrush	ARTRTQ	15-20	15-20	---	---	---	5-10
big sagebrush	ARTR2	15-20	15-20	10-20	---	---	---
mountain big sagebrush	ARVA2	15-20	15-20	10-20	---	---	---
rabbitbrush	CHRY59	2-5	2-5	---	---	---	---
rubber rabbitbrush	CHNA2	---	---	---	---	---	1-3
spiny hopsage	GRSP	---	---	---	2-5	---	---
Range site number		023XY020NV	023XY020NV	023XY039NV	024XY005NV	none	023XY009NV
Potential production (lb/acre):							
Favorable years		1100	1100	900	800		5500
Normal years		900	900	700	600		4500
Unfavorable years		600	600	500	400		2500

1473--ZYMANS-GENAW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ZYMANS	GENAW	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---
Cusick bluegrass	POCU3	---	---	---	---	---	---
Indian ricegrass	ORHY	---	---	---	25-35	---	---
Thurber needlegrass	STTH2	20-30	20-30	20-30	5-10	20-30	---
basin wildrye	ELCI2	2-5	2-5	---	---	2-5	---
bluebunch wheatgrass	AGSP	30-40	30-40	20-35	---	30-40	---
bluegrass	POA++	2-8	2-8	---	---	2-8	---
arrowleaf balsamroot	BASA3	---	---	2-5	---	---	---
globemallow	SPHAE	---	---	---	2-4	---	---
tapertip hawksbeard	CRAC2	---	---	2-5	---	---	---
Douglas rabbitbrush	CHVI8	---	---	---	2-5	---	---
Wyoming big sagebrush	ARTRW	---	---	---	25-35	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	10-15	10-15	15- 25	---	10-15	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---
shadscale	ATCO	---	---	---	2-5	---	---
spiny hopsage	GRSP	---	---	---	2-5	---	---
Range site number		024XY013NV	024XY013NV	024XY035NV	024XY045NV	024XY013NV	none
Potential production (lb/acre):							
Favorable years		1000	1000	500	350	1000	
Normal years		800	800	400	200	800	
Unfavorable years		600	600	250	100	600	

1480--TUSEL-ROCK OUTCROP COMPLEX, 30 TO 50 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		TUSEL	ROCK OUTCROP	Inclusion 1	Inclusion 2
Canby bluegrass	POCA	---	---	---	5-15
Idaho fescue	FEID	2-10	---	5-15	10-20
Letterman needlegrass	STLE4	2-5	---	2-5	---
Nevada bluegrass	PONE3	2-5	---	2-5	---
Sandberg bluegrass	POSE	---	---	---	5-15
basin wildrye	ELCI2	---	---	10-20	---
blue wildrye	ELGL	2-5	---	---	---
bluebunch wheatgrass	AGSP	2-5	---	5-15	---
bluegrass	POA++	---	---	---	5-15
mountain brome	BRCA5	5-15	---	10-20	---
purple oniongrass	MESP	2-5	---	---	---
slender wheatgrass	AGTR	5-15	---	---	---
arrowleaf balsamroot	BASA3	---	---	2-5	---
carrotleaf lomatium	LODIM	2-5	---	---	---
clover	TRIFO	2-5	---	---	---
geranium	GERAN	2-10	---	---	---
goldenweed	HAPLO2	---	---	---	2-5
groundsel	SENEC	2-10	---	---	---
horsemint giant hyssop	AGUR	2-5	---	---	---
lupine	LUPIN	---	---	1-2	---
tapertip hawkbeard	CRAC2	---	---	2-5	---
Douglas rabbitbrush	CHVI8	---	---	---	2-5
antelope bitterbrush	PUTR2	2-5	---	2-5	---
common chokecherry	PRVI	2-5	---	---	---
elderberry	SAMBU	2-5	---	---	---
low sagebrush	ARAR8	---	---	---	35-45
mountain big sagebrush	ARVA2	---	---	15-25	---
quaking aspen	POTRT	2-5	---	---	---
snowberry	SYMPH	2-10	---	10-15	---
Range site number		023XY065NV	none	023XY064NV	023XY008NV
Potential production (lb/acre):					
Favorable years		2600		2000	400
Normal years		1800		1400	250
Unfavorable years		1400		1000	200

1481--TUSEL-CLEAVAGE COMPLEX, 30 TO 50 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		TUSEL	CLEAVAGE	Inclusion 1	Inclusion 2
Canby bluegrass	POCA	---	5-15	---	---
Idaho fescue	FEID	2-10	10-20	5-15	---
Letterman needlegrass	STLE4	2-5	---	2-5	---
Nevada bluegrass	PONE3	2-5	---	2-5	---
Sandberg bluegrass	POSE	---	5-15	---	---
basin wildrye	ELCI2	---	---	10-20	---
blue wildrye	ELGL	2-5	---	---	---
bluebunch wheatgrass	AGSP	2-5	---	5-15	---
bluegrass	POA++	---	5-15	---	---
mountain brome	BRCA5	5-15	---	10-20	---
purple oniongrass	MESP	2-5	---	---	---
slender wheatgrass	AGTR	5-15	---	---	---
arrowleaf balsamroot	BASA3	---	---	2-5	---
carrotleaf lomatium	LODIM	2-5	---	---	---
clover	TRIFO	2-5	---	---	---
geranium	GERAN	2-10	---	---	---
goldenweed	HAPLO2	---	2-5	---	---
groundsel	SENEC	2-10	---	---	---
horsemint giant hyssop	AGUR	2-5	---	---	---
lupine	LUPIN	---	---	1-2	---
tapertip hawkbeard	CRAC2	---	---	2-5	---
Douglas rabbitbrush	CHVI8	---	2-5	---	---
antelope bitterbrush	PUTR2	2-5	---	2-5	---
common chokecherry	PRVI	2-5	---	---	---
elderberry	SAMBU	2-5	---	---	---
low sagebrush	ARAR8	---	35-45	---	---
mountain big sagebrush	ARVA2	---	---	15-25	---
quaking aspen	POTRT	2-5	---	---	---
snowberry	SYMPH	2-10	---	10-15	---
Range site number		023XY065NV	023XY008NV	023XY064NV	none
Potential production (lb/acre):					
Favorable years		2600	400	2000	
Normal years		1800	250	1400	
Unfavorable years		1400	200	1000	

1482--TUSEL-LAYVIEW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		TUSEL	LAYVIEW	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCU	---	---	---	---	---	---
	POCA	---	---	---	---	---	---
Columbia needlegrass	STNE3	2-5	---	---	---	2-8	---
Idaho fescue	FEID	2-10	15-30	5-15	40-50	---	---
Letterman needlegrass	STLE4	---	---	---	---	2-5	---
Nevada bluegrass	PONE3	2-5	---	---	---	---	---
bluebunch wheatgrass	AGSP	2-5	---	---	2-5	---	---
bluegrass	POA++	---	5-15	---	5-15	---	---
mountain brome	BRCA5	5-15	---	2-5	---	5-10	---
onespike oatgrass	DAUN	---	---	---	2-10	---	---
sedge	CAREX	---	---	2-8	---	---	---
slender wheatgrass	AGTR	5-15	---	2-5	---	5-10	---
spike-fescue	LEKI2	2-10	---	20-30	---	---	---
carrotleaf lomatium	LODIM	2-5	---	---	---	---	---
geranium	GERAN	2-5	---	---	---	---	---
goldenweed	HAPLO2	---	2-5	---	---	---	---
groundsel	SENEC	2-5	---	---	---	---	---
Utah serviceberry	AMUT	1-5	---	---	---	---	---
antelope bitterbrush	PUTR2	1-5	---	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---
common chokecherry	PRVI	1-5	---	---	---	---	---
eriogonum	ERIOG	---	---	2-5	---	---	---
low sagebrush	ARAR8	---	---	---	10-20	---	---
mountain big sagebrush	ARVA2	5-15	---	15-25	---	---	---
quaking aspen	POTR5	---	---	---	---	50-60	---
sagebrush	ARTEM	---	30-35	---	---	---	---
snowberry	SYMPH	2-15	---	---	---	---	1-8
willow	SALIX	---	---	---	---	---	---

Range site number	025XY004NV	025XY024NV	025XY076NV	025XY032NV	025XY002NV	none
Potential production (lb/acre):						
Favorable years	2800	400	1000	800	1800	
Normal years	1800	275	700	600	1300	
Unfavorable years	1200	150	400	400	900	

1483--TUSEL-HACKWOOD-SPINLIN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		TUSEL	HACKWOOD	SPINLIN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	2-5	---	---	---	2-8	---	---
Idaho fescue	FEID	2-10	X	30-50	---	---	---	---
Letterman needlegrass	STLE4	---	---	---	---	2-5	---	40-60
Nevada bluegrass	PONE3	2-5	---	---	---	---	40-60	---
alpine timothy	PHAL2	---	---	---	---	---	20-40	---
basin wildrye	ELCI2	---	---	---	---	---	2-8	---
bluebunch wheatgrass	AGSP	2-5	---	15-30	---	---	---	---
bluegrass	POA++	---	---	2-10	---	---	---	---
horsemint giant hyssop	AGUR	---	X	---	---	---	---	---
mat muhly	MURI	---	---	---	---	---	2-8	---
meadow barley	HOBR2	---	---	---	---	---	2-5	---
mountain brome	BRCA5	5-15	X	---	---	5-10	---	---
sedge	CAREX	---	---	---	---	---	2-8	---
slender wheatgrass	AGTR	5-15	X	---	---	5-10	---	---
spike-fescue	LEKI2	2-10	---	---	---	---	---	---
carrotleaf lomatium	LODIM	2-5	---	---	---	---	---	---
geranium	GERAN	2-5	---	---	---	---	---	---
groundsel	SENEC	2-5	X	---	---	---	---	---
tailcup lupine	LUCA	---	---	---	---	---	---	20-40
Utah serviceberry	AMUT	1-5	X	---	---	---	---	---
antelope bitterbrush	PUTR2	1-5	---	2-5	---	---	---	---
common chokecherry	PRVI	1-5	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	15-25	---	---	---	---
mountain big sagebrush	ARVA2	5-15	---	---	---	---	---	---
quaking aspen	POTR5	---	---	---	---	50-60	---	---
snowberry	SYMPH	2-15	X	---	---	---	---	---
willow	SALIX	---	---	---	---	1-8	---	---
quaking aspen	POTRT	---	X	---	---	---	---	---

Range site number	025XY004NV	025XY065NV	025XY017NV	none	025XY002NV	025XY006NV	025XY028NV
Potential production (lb/acre):							
Favorable years	2800	800	900		1800	2000	1700
Normal years	1800	600	700		1300	1300	1400
Unfavorable years	1200	400	400		900	800	1100

1484--TUSEL-NINEMILE-CLEAVAGE ASSOCIATION

[An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		TUSEL	NINEMILE	CLEAVAGE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	2-5	---	---	---	---	---	---
Idaho fescue	FEID	2-10	30-50	15-30	---	---	15-25	---
Letterman needlegrass	STLE4	---	---	---	---	---	---	X
Nevada bluegrass	PONE3	2-5	---	---	---	---	---	---
Ross sedge	CARO5	---	---	---	---	---	---	X
Thurber needlegrass	STTH2	---	---	---	---	---	---	---
big squirreltail	SIJU	---	---	---	---	---	---	X
bluebunch wheatgrass	AGSP	2-5	15-30	---	---	---	5-15	---
bluegrass	POA++	---	2-10	5-15	---	---	2-5	X
dunhead sedge	CAPH2	---	---	---	---	---	---	X
mountain brome	BRCA5	5-15	---	---	---	---	---	---
needlegrass	STIPA	---	---	---	---	---	2-8	---
slender wheatgrass	AGTR	5-15	---	---	---	---	---	---
spike-fescue	LEKI2	2-10	---	---	---	---	---	X
western needlegrass	STOC2	---	---	---	---	---	---	X
carrotleaf lomatium	LODIM	2-5	---	---	---	---	---	---
geranium	GERAN	2-5	---	---	---	---	---	---
goldenweed	HAPLO2	---	---	2-5	---	---	---	X
groundsel	SENEC	2-5	---	---	---	---	---	X
Utah serviceberry	AMUT	1-5	---	---	---	---	---	X
antelope bitterbrush	PUTR2	1-5	2-5	---	---	---	2-5	---
black sagebrush	ARARN	---	---	---	---	---	---	---
common chokecherry	PRVI	1-5	---	---	---	---	---	---
curlleaf mountainmahogany	CELE3	---	---	---	---	---	---	X
erigonum	ERIOG	---	---	---	---	---	---	X
low sagebrush	ARAR8	---	15-25	---	---	---	---	---
mountain big sagebrush	ARVA2	5-15	---	---	---	---	5-15	X
mountain snowberry	SYOR2	---	---	---	---	---	---	X
sagebrush	ARTEM	---	---	30-35	---	---	---	---
snowberry	SYMPH	2-15	---	---	---	---	2-8	---
snowbrush ceanothus	CEVE	---	---	---	70-80	---	---	X
limber pine	FIFL2	---	---	---	---	---	---	X
quaking aspen	POTRT	---	---	---	---	---	---	X

Range site number	025XY004NV	025XY017NV	025XY024NV	025XY052NV	none	025XY071NV	025XY073NV
Potential production (lb/acre):							
Favorable years	2800	900	400	2800		1700	450
Normal years	1800	700	275	2000		1300	350
Unfavorable years	1200	400	150	1700		900	250

1500--EAGLEROCK-ACRELANE-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		EAGLEROCK	ACRELANE	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Cusick bluegrass	POCU3	---	---	---	---	5-10	---
Idaho fescue	FEID	---	---	---	---	30-50	---
Indian ricegrass	ORHY	---	2-5	---	---	---	---
Letterman needlegress	STLE4	---	---	---	---	2-5	---
Nevada bluegrass	PONE3	---	---	---	---	---	2-8
Thurber needlegress	STTH2	10-20	10-20	---	10-25	---	---
basin wildrye	ELCI2	2-10	---	---	20-30	---	65-75
bluebunch wheatgrass	ACSP	40-60	30-40	---	---	2-5	---
desert needlegress	STSP3	---	2-5	---	---	---	---
arrowleaf balsamroot	BASA3	---	---	---	---	1-3	---
tapertip hawksbeard	CRAC2	---	---	---	---	1-3	---
Wyoming big sagebrush	ARTRWQ	10-20	20-30	---	15-25	---	---
antelope bitterbrush	FUTR2	2-5	---	---	---	---	---
basin big sagebrush	ARTRTQ	---	---	---	15-25	---	5-10
big sagebrush	ARTR2	10-20	---	---	15-25	---	---
black greasewood	SAVE4	---	---	---	2-5	---	---
ephedra	EPHED	---	5-10	---	---	---	---
mountain big sagebrush	ARVA2	10-20	---	---	---	---	---
rubber rabbitbrush	CHNA2	---	---	---	---	---	1-3
snowberry	SYMPH	---	---	---	---	2-5	---
spiny hopsage	GRSP	---	---	---	5-10	---	---
threetip sagebrush	ARTR4	---	---	---	---	15-25	---

Range site number	023XY039NV	023XY049NV	none	023XY040NV	023XY053NV	023XY009NV
Potential production (lb/acre):						
Favorable years	900	900		1000	1000	5500
Normal years	700	700		800	800	4500
Unfavorable years	500	500		600	600	2500

1520--CROESUS-ROCK OUTCROP COMPLEX, 50 TO 75 PERCENT SLOPES

(An X indicates that the named plant is in the potential native woodland understory and the percentage is highly variable. Absence of an entry indicates that the named plant is not a key species in the potential native plant community)

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		CROESUS	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	5-10	5-15	---	---
Columbia needlegrass	STNE3	---	---	10-20	---	---	---
Idaho fescue	FEID	5-15	---	2-5	10-20	---	X
Letterman needlegrass	STLE4	2-5	---	---	---	---	---
Nevada bluegrass	PONE3	2-5	---	5-10	---	---	X
Sandberg bluegrass	POSE	---	---	---	5-15	---	---
basin wildrye	ELCI2	10-20	---	5-10	---	---	---
big squirreltail	SIJU	---	---	---	---	---	X
bluebunch wheatgrass	AGSP	5-15	---	---	---	---	---
bluegrass	POA++	---	---	5-10	5-15	5-10	---
mannagrass	GLYCE	---	---	---	---	5-10	---
meadow barley	HOBRE2	---	---	---	---	5-10	---
melic	MELIC	---	---	---	---	---	X
mountain brome	BRCA5	10-20	---	20-40	---	---	X
needlegrass	STIPA	---	---	10-20	---	---	---
rush	JUNCU	---	---	---	---	5-10	---
sedge	CAREX	---	---	---	---	5-10	---
slender wheatgrass	AGTR	---	---	---	---	---	X
tufted hairgrass	DECE	---	---	---	---	30-50	---
western needlegrass	STOC2	---	---	10-20	---	---	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---
goldenweed	HAPLO2	---	---	---	2-5	---	---
lupine	LUPIN	1-2	---	---	---	---	---
meadowrus	THALI2	---	---	---	---	---	X
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---
Douglas rabbitbrush	CHVI8	---	---	---	2-5	---	---
antelope bitterbrush	PUTR2	2-5	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	35-45	---	---
mountain big sagebrush	ARVA2	15-25	---	10-20	---	---	X
snowberry	SYMPH	10-15	---	2-5	---	---	X
quaking aspen	POTRT	---	---	---	---	---	X

Range site number	023XY064NV	none	023XY019NV	023XY008NV	023XY025NV	023XY028NV
Potential production (lb/acre):						
Favorable years	2000		2200	400	4000	600
Normal years	1400		1800	250	3000	400
Unfavorable years	1000		1500	200	2000	250

1521--CROESUS-ROCK OUTCROP COMPLEX, 8 TO 30 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		CROESUS	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Canby bluegrass	POCA	---	---	---	5-10	---
Columbia needlegrass	STNE3	5-15	---	2-5	10-20	---
Cusick bluegrass	POCU3	5-10	---	---	---	---
Idaho fescue	FEID	10-20	---	---	2-5	---
Letterman needlegrass	STLE4	5-15	---	60-70	---	---
Nevada bluegrass	PONE3	---	---	---	5-10	---
basin wildrye	ELCI2	---	---	---	5-10	---
bluebunch wheatgrass	AGSP	2-5	---	---	---	---
bluegrass	POA++	---	---	---	5-10	5-10
mannagrass	GLYCE	---	---	---	---	5-10
meadow barley	HOBR2	---	---	---	---	5-10
mountain brome	BRCA5	---	---	---	20-40	---
needlegrass	STIPA	5-15	---	---	10-20	---
rush	JUNCU	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	5-10
slender wheatgrass	AGTR	---	---	2-5	---	---
tufted hairgrass	DECE	---	---	---	---	30-50
western needlegrass	STOC2	---	---	---	10-20	---
tailcup lupine	LUCA	---	---	20-40	---	---
mountain big sagebrush	ARVA2	15-25	---	---	10-20	---
snowberry	SYMPH	---	---	---	2-5	---

Range site number	023XY061NV	none	023XY062NV	023XY019NV	023XY025NV
Potential production (lb/acre):					
Favorable years	900		1000	2200	4000
Normal years	700		800	1800	3000
Unfavorable years	500		500	1500	2000

1522--CROESUS-HARCANY-ROCK OUTCROP ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		CROESUS	HARCANY	ROCK OUTCROP	Inclusion 1	Inclusion 2	Inclusion 3
Columbia needlegrass	STNE3	---	---	---	2-5	5-15	---
Cusick bluegrass	POCU3	---	---	---	---	5-10	---
Idaho fescue	FEID	5-15	2-10	---	---	10-20	---
Letterman needlegrass	STLE4	2-5	2-5	---	60-70	5-15	---
Nevada bluegrass	PONE3	2-5	2-5	---	---	---	---
basin wildrye	ELCI2	10-20	---	---	---	---	---
blue wildrye	ELGL	---	2-5	---	---	---	---
bluebunch wheatgrass	AGSP	5-15	2-5	---	---	2-5	---
bluegrass	POA++	---	---	---	---	---	5-10
mannagrass	GLYCE	---	---	---	---	---	5-10
meadow barley	HOBR2	---	---	---	---	---	5-10
mountain brome	BRCA5	10-20	5-15	---	---	---	---
needlegrass	STIPA	---	---	---	---	5-15	---
purple oniongrass	MESP	---	2-5	---	---	---	---
rush	JUNCU	---	---	---	---	---	5-10
sedge	CAREX	---	---	---	---	---	5-10
slender wheatgrass	AGTR	---	5-15	---	2-5	---	---
tufted hairgrass	DECE	---	---	---	---	---	30-50
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---
carrotleaf lomatium	LODIM	---	2-5	---	---	---	---
clover	TRIFO	---	2-5	---	---	---	---
geranium	GERAN	---	2-10	---	---	---	---
groundsel	SENEC	---	2-10	---	---	---	---
horsemint giant hyssop	AGUR	---	2-5	---	---	---	---
lupine	LUPIN	1-2	---	---	---	---	---
tailcup lupine	LUCA	---	---	---	20-40	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---
antelope bitterbrush	PUTR2	2-5	2-5	---	---	---	---
common chokecherry	PRVI	---	2-5	---	---	---	---
elderberry	SAMBU	---	2-5	---	---	---	---
mountain big sagebrush	ARVA2	15-25	---	---	---	15-25	---
quaking aspen	POTRT	---	2-5	---	---	---	---
snowberry	SYMPH	10-15	2-10	---	---	---	---

Range site number	023XY064NV	023XY065NV	none	023XY062NV	023XY061NV	023XY025NV
Potential production (lb/acre):						
Favorable years	2000	2600		1000	900	4000
Normal years	1400	1800		800	700	3000
Unfavorable years	1000	1400		500	500	2000

1523--CROESUS-UDELOPE-LAYVIEW ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		CROESUS	UDELOPE	LAYVIEW	Inclusion 1	Inclusion 2	Inclusion 3
Columbia needlegrass	STNE3	5-15	---	---	---	---	---
Idaho fescue	FEID	25-40	10-20	15-30	X	---	---
Letterman needlegrass	STLE4	---	5-10	---	---	---	---
Nevada bluegrass	PONE3	2-8	---	---	---	---	40-60
alpine timothy	PHAL2	---	---	---	---	---	20-40
basin wildrye	ELCI2	---	---	---	---	---	2-8
bluebunch wheatgrass	AGSP	5-15	10-20	---	---	---	---
bluegrass	POA++	---	---	5-15	---	---	---
horsemint giant hyssop	AGUR	---	---	---	X	---	---
mat muhly	MURI	---	---	---	---	---	2-8
meadow barley	HOBR2	---	---	---	---	---	2-5
mountain brome	BRCA5	5-15	---	---	X	---	---
sedge	CAREX	---	---	---	---	---	2-8
slender wheatgrass	AGTR	5-15	---	---	X	---	---
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---
goldenweed	HAPLO2	---	---	2-5	---	---	---
groundsel	SENEC	---	---	---	X	---	---
lupine	LUPIN	2-5	---	---	---	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---
Utah serviceberry	AMUT	---	---	---	X	---	---
antelope bitterbrush	PUTR2	2-8	---	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	---	---	---
mountain big sagebrush	ARVA2	10-15	15-25	---	---	---	---
mountain snowberry	SYOR2	---	2-8	---	---	---	---
sagebrush	ARTEM	---	---	30-35	---	---	---
snowberry	SYMPH	2-5	---	---	X	---	---
curlleaf mountainmahogany	CELE3	---	30-50	---	---	---	---
quaking aspen	POTRT	---	---	---	X	---	---
Range site number		025XY056NV	025XY031NV	025XY024NV	025XY065NV	none	025XY006NV
Potential production (lb/acre):							
Favorable years		1500	1300	400	800		2000
Normal years		1100	900	275	600		1300
Unfavorable years		700	600	150	400		800

1524--CROESUS-SPINLIN ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		CROESUS	SPINLIN	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Columbia needlegrass	STNE3	5-15	---	---	---	---	---
Idaho fescue	FEID	25-40	30-50	15-30	---	---	---
Letterman needlegrass	STLE4	---	---	---	40-60	---	---
Nevada bluegrass	PONE3	2-8	---	---	---	---	5-10
alpine timothy	PHAL2	---	---	---	---	---	5-10
bluebunch wheatgrass	AGSP	5-15	15-30	---	---	---	---
bluegrass	POA++	---	2-10	5-15	---	---	---
mountain brome	BRCA5	5-15	---	---	---	---	---
sedge	CAREX	---	---	---	---	---	5-10
slender wheatgrass	AGTR	5-15	---	---	---	---	---
tufted hairgrass	DECE	---	---	---	---	---	30-60
Sierra clover	TRWO	---	---	---	---	---	2-5
arrowleaf balsamroot	BASA3	2-5	---	---	---	---	---
cinquefoil	POTEN	---	---	---	---	---	2-5
goldenweed	HAPLO2	---	---	2-5	---	---	---
lupine	LUPIN	2-5	---	---	---	---	---
tailcup lupine	LUCA	---	---	---	20-40	---	---
tapertip hawksbeard	CRAC2	2-5	---	---	---	---	---
antelope bitterbrush	PUTR2	2-8	2-5	---	---	---	---
black sagebrush	ARARN	---	---	---	---	---	---
low sagebrush	ARARS	---	15-25	---	---	---	---
mountain big sagebrush	ARVA2	10-15	---	---	---	---	---
sagebrush	ARTEM	---	---	30-35	---	---	---
snowberry	SYMPH	2-5	---	---	---	---	---

Range site number	025XY056NV	025XY017NV	025XY024NV	025XY028NV	none	025XY005NV
Potential production (lb/acre):						
Favorable years	1500	900	400	1700		3000
Normal years	1100	700	275	1400		1700
Unfavorable years	700	400	150	1100		1000

1530--WESTBUTTE STONY LOAM, 15 TO 50 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions				
		Soil name or Inclusion number--				
		WESTBUTTE	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	5-10	2-8	---	---
Columbia needlegrass	STNE3	---	10-20	---	---	---
Cusick bluegrass	POCUB	5-10	---	2-8	---	---
Idaho fescue	FEID	30-50	2-5	30-40	---	---
Letterman needlegrass	STLE4	2-5	---	---	---	---
Nevada bluegrass	PONE3	---	5-10	---	---	---
Thurber needlegrass	STTH2	---	---	2-8	5-10	---
basin wildrye	ELCI2	---	5-10	5-15	15-25	---
bluebunch wheatgrass	AGSP	2-5	---	15-35	40-50	---
bluegrass	POA++	---	5-10	2-8	---	---
mountain brome	BRCA5	---	20-40	---	---	---
needlegrass	STIPA	---	10-20	---	---	---
western needlegrass	STOC2	---	10-20	---	---	---
arrowleaf balsamroot	BASA3	1-3	---	---	---	---
tapertip hawksbeard	CRAC2	1-3	---	---	---	---
antelope bitterbrush	PUTR2	---	---	2-10	5-10	---
mountain big sagebrush	ARVA2	---	10-20	10-20	15-25	---
snowberry	SYMPH	2-5	2-5	---	---	---
threetip sagebrush	ARTR4	15-25	---	---	---	---

Range site number	023XY053NV	023XY019NV	023XY007NV	023XY018NV	none
Potential production (lb/acre):					
Favorable years	1000	2200	1600	1200	
Normal years	800	1800	1200	1000	
Unfavorable years	600	1500	900		

1540--LOCANE VERY COBBLY LOAM, 8 TO 30 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		LOCANE	Inclusion 1	Inclusion 2
Canby bluegrass	POCA	2-5	2-8	---
Cusick bluegrass	POCU3	---	2-8	---
Idaho fescue	FEID	---	30-40	---
Thurber needlegrass	STH2	15-20	2-8	---
basin wildrye	ELCI2	5-10	5-15	---
bluebunch wheatgrass	AGSP	30-40	15-35	---
bluegrass	POA++	---	2-8	---
Wyoming big sagebrush	ARTRWQ	15-20	---	---
antelope bitterbrush	PUTR2	2-10	2-10	---
basin big sagebrush	ARTRQ	15-20	---	---
big sagebrush	ARTR2	15-20	---	---
mountain big sagebrush	ARVA2	15-20	10-20	---
rabbitbrush	CHRY99	2-5	---	---
Range site number		023XY020NV	023XY007NV	none
Potential production (lb/acre):				
Favorable years		1100	1600	
Normal years		900	1200	
Unfavorable years		600	900	

1551--CHARWELL-ANAWALT ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		CHARWELL	ANAWALT	ANAWALT	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Idaho fescue	FEID	30-50	---	---	---	---	---	---
Nevada bluegrass	PONE3	---	---	---	---	---	5-10	5-10
Sandberg bluegrass	POSE	---	2-8	30-45	---	---	---	---
Thurber needlegrass	STTH2	---	15-30	---	---	10-20	---	---
Webber ricegrass	STWE	---	2-8	2-5	---	---	---	---
alpine timothy	PHAL2	---	---	---	---	---	---	5-10
basin wildrye	ELCI2	---	---	---	---	2-8	60-70	---
bluebunch wheatgrass	AGSP	15-30	20-40	---	---	20-35	---	---
bluegrass	POA++	2-10	---	---	---	2-10	---	---
mat muhly	MURI	---	---	---	---	---	2-8	---
sedge	CAREX	---	---	---	---	---	---	5-10
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8	---
tufted hairgrass	DECE	---	---	---	---	---	---	30-60
Sierra clover	TRWO	---	---	---	---	---	---	2-5
cinquefoil	POTEN	---	---	---	---	---	---	2-5
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---	---
antelope bitterbrush	PUTR2	2-5	---	---	---	2-8	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	5-10	---
big sagebrush	ARTR2	---	---	---	---	10-15	---	---
early sagebrush	ARLO9	---	---	---	---	---	---	---
low sagebrush	ARAR8	15-25	---	30-45	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---
sagebrush	ARTEM	---	20-30	---	---	---	---	---
Range site number		025XY017NV	025XY018NV	023XY021NV	none	025XY014NV	025XY003NV	025XY005NV
Potential production (lb/acre):								
Favorable years		900	800	300		1000	4500	3000
Normal years		700	600	200		800	3500	1700
Unfavorable years		400	400	150		600	2000	1000

1560--MENBO-ROCK OUTCROP COMPLEX, 50 TO 75 PERCENT SLOPES

(Absence of an entry indicates that the named plant is not a key species in the potential native plant community)

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		MENBO	ROCK OUTCROP	Inclusion 1	Inclusion 2
Canby bluegrass	POCA	2-8	---	---	5-15
Cusick bluegrass	POCU3	2-8	---	---	---
Idaho fescue	FEID	30-40	---	5-15	10-20
Letterman needlegrass	STLE4	---	---	2-5	---
Nevada bluegrass	PONE3	---	---	2-5	---
Sandberg bluegrass	POSE	---	---	---	5-15
Thurber needlegrass	STH2	2-8	---	---	---
basin wildrye	ELC12	5-15	---	10-20	---
bluebunch wheatgrass	AGSP	15-35	---	5-15	---
bluegrass	POA++	2-8	---	---	5-15
mountain brome	BRCA5	---	---	10-20	---
arrowleaf balsamroot	BASA3	---	---	2-5	---
goldenweed	HAPLO2	---	---	---	2-5
lupine	LUPIN	---	---	1-2	---
tapertip hawksbeard	CRAC2	---	---	2-5	---
Douglas rabbitbrush	CHV18	---	---	---	2-5
antelope bitterbrush	PUTR2	2-10	---	2-5	---
low sagebrush	ARAR8	---	---	---	35-45
mountain big sagebrush	ARVA2	10-20	---	15-25	---
snowberry	SYMPH	---	---	10-15	---
Range site number		023XY007NV	none	023XY064NV	023XY008NV
Potential production (lb/acre):					
Favorable years		1600		2000	400
Normal years		1200		1400	250
Unfavorable years		900		1000	200

1561--MENBO-MADELINE-TUSEL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		MENBO	MADELINE	TUSEL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	2-5	5-10	2-8	5-10	---	---
Columbia needlegrass	STNE3	---	---	10-20	---	---	---	---
Cusick bluegrass	POCU3	2-8	---	---	---	---	---	---
Idaho fescue	FEID	30-40	---	2-5	30-40	---	---	---
Nevada bluegrass	PONE3	---	---	5-10	---	---	---	---
Sandberg bluegrass	POSE	---	---	---	2-8	5-10	---	---
Thurber needlegrass	STTH2	2-8	15-20	---	2-5	10-20	---	---
basin wildrye	ELCI2	5-15	5-10	5-10	2-5	---	---	---
bluebunch wheatgrass	AGSP	15-35	30-40	---	20-30	20-50	---	---
bluegrass	POA++	2-8	---	5-10	2-8	5-10	5-10	---
mannagrass	GLYCE	---	---	---	---	---	5-10	---
meadow barley	HOB2	---	---	---	---	---	5-10	---
mountain brome	BRCA5	---	---	20-40	---	---	---	---
needlegrass	STIPA	---	---	10-20	---	---	---	---
rush	JUNCU	---	---	---	---	---	5-10	---
sedge	CAREX	---	---	---	---	---	5-10	---
tufted hairgrass	DECE	---	---	---	---	---	30-50	---
western needlegrass	STOC2	---	---	10-20	---	---	---	---
Wyoming big sagebrush	ARTRWQ	---	15-20	---	---	---	---	---
antelope bitterbrush	PUTR2	2-10	2-10	---	---	---	---	---
basin big sagebrush	ARTRTQ	---	15-20	---	---	---	---	---
big sagebrush	ARTR2	---	15-20	---	---	---	---	---
low sagebrush	ARAR8	---	---	---	10-20	10-20	---	---
mountain big sagebrush	ARVA2	10-20	15-20	10-20	---	---	---	---
rabbitbrush	CHRY9	---	2-5	---	---	---	---	---
snowberry	SYMPH	---	---	2-5	---	---	---	---

Range site number	023XY007NV	023XY020NV	023XY019NV	023XY017NV	023XY031NV	023XY025NV	none
Potential production (lb/acre):							
Favorable years	1600	1100	2200	900	900	4000	
Normal years	1200	900	1800	700	700	3000	
Unfavorable years	900	600	1500	500	500	2000	

1562--MENBO-DEVADA-LONGCREEK ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		MENBO	DEVADA	LONGCREEK	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	2-8	5-10	---	2-5	2-8	---	---
Cusick bluegrass	POCU3	2-8	---	---	---	---	---	---
Idaho fescue	FEID	30-40	---	---	---	30-40	---	---
Sandberg bluegrass	POSE	---	5-10	---	---	2-8	---	---
Thurber needlegrass	STTH2	2-8	10-20	5-10	15-20	2-5	---	---
basin wildrye	ELCI2	5-15	---	15-25	5-10	2-5	---	---
bluebunch wheatgrass	AGSP	15-35	20-50	40-50	30-40	20-30	---	---
bluegrass	POA++	2-8	5-10	---	---	2-8	5-10	---
mannagrass	GLYCE	---	---	---	---	---	5-10	---
meadow barley	HOBK2	---	---	---	---	---	5-10	---
rush	JUNCU	---	---	---	---	---	5-10	---
sedge	CAREX	---	---	---	---	---	---	---
tufted hairgrass	DECE	---	---	---	---	---	30-50	---
Wyoming big sagebrush	ARTRWQ	---	---	---	15-20	---	---	---
antelope bitterbrush	PUTR2	2-10	---	5-10	2-10	---	---	---
basin big sagebrush	ARTRTQ	---	---	---	15-20	---	---	---
big sagebrush	ARTR2	---	---	---	15-20	---	---	---
low sagebrush	ARAR8	---	10-20	---	---	10-20	---	---
mountain big sagebrush	ARVA2	10-20	---	15-25	15-20	---	---	---
rabbitbrush	CHRS9	---	---	---	2-5	---	---	---

Range site number	023XY007NV	023XY031NV	023XY018NV	023XY020NV	023XY017NV	023XY025NV	none
Potential production (lb/acre):							
Favorable years	1600	900	1200	1100	900	4000	
Normal years	1200	700	1000	900	700	3000	
Unfavorable years	900	500	800	600	500	2000	

1570--DELVADA SILTY CLAY

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		DELVADA	Inclusion 1	Inclusion 2
Nevada bluegrass	PONE3	5-15	---	---
alkali bluegrass	POJU	---	---	5-15
alkali cordgrass	SPGR	---	---	5-10
alkali muhly	MUAS	---	---	10-20
alkali sacaton	SPAI	---	5-15	15-40
basin wildrye	ELCI2	---	50-60	2-5
creeping wildrye	ELTR3	---	---	---
inland saltgrass	DISPS2	2-5	2-8	5-10
mat muhly	MURI	2-5	---	---
sedge	CAREX	2-10	---	---
wildrye	ELYMU	60-80	---	---
arrowgrass	TRIGL	---	---	1-3
black greasewood	SAVE4	---	5-15	---
rubber rabbitbrush	CHNA2	---	2-5	---
willow	SALIX	5-10	---	---

Range site number	025XY001NV	024XY007NV	024XY009NV
Potential production (lb/acre):			
Favorable years	3500	1900	1500
Normal years	2500	1400	1000
Unfavorable years	1800	800	700

1572--DELVADA SILTY CLAY LOAM, DRAINED, STRONGLY SALINE

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		DELVADA	Inclusion 1	Inclusion 2	Inclusion 3
Nevada bluegrass	PONE3	---	---	---	5-15
alkali bluegrass	POJU	---	---	5-15	---
alkali cordgrass	SPGR	---	---	5-10	---
alkali muhly	MUAS	---	---	10-20	---
alkali sacaton	SPAI	5-15	---	15-40	---
basin wildrye	ELCI2	50-60	5-15	2-5	---
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	2-8	5-10	5-10	2-5
mat muhly	MURI	---	---	---	2-5
sedge	CAREX	---	---	---	2-10
wildrye	ELYMU	---	---	---	60-80
arrowgrass	TRIGL	---	---	1-3	---
black greasewood	SAVE4	5-15	60-75	---	---
rubber rabbitbrush	CHNA2	2-5	---	---	---
willow	SALIX	---	---	---	5-10
Range site number		024XY007NV	024XY011NV	024XY009NV	025XY001NV
Potential production (lb/acre):					
Favorable years		1900	500	1500	3500
Normal years		1400	350	1000	2500
Unfavorable years		800	200	700	1800

1579--DELVADA SILTY CLAY LOAM, OCCASIONALLY FLOODED

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		DELVADA	Inclusion 1	Inclusion 2	Inclusion 3
Baltic rush	JUBA	5-15	---	---	---
Nevada bluegrass	PONE3	---	---	---	5-15
alkali bluegrass	POJU	30-50	---	---	---
alkali sacaton	SPAI	5-20	5-15	---	---
basin wildrye	ELCI2	---	50-60	5-15	---
creeping wildrye	ELTR3	---	---	---	---
inland saltgrass	DISPS2	5-15	2-8	5-10	2-5
mat muhly	MURI	---	---	---	2-5
sedge	CAREX	---	---	---	2-10
wildrye	ELYMU	---	---	---	60-80
black greasewood	SAVE4	---	5-15	60-75	---
rubber rabbitbrush	CHNA2	---	2-5	---	---
willow	SALIX	---	---	---	5-10

Range site number	024XY043NV	024XY007NV	024XY011NV	025XY001NV
Potential production (lb/acre):				
Favorable years	3000	1900	500	3500
Normal years	2000	1400	350	2500
Unfavorable years	1000	800	200	1800

1580--ISOLDE-ESSAL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		ISOLDE	ESSAL	ESSAL	Inclusion 1	Inclusion 2	Inclusion 3
Indian ricegrass	ORHY	20-30	---	20-30	10-15	2-5	---
basin wildrye	ELCI2	---	---	---	---	5-20	---
bottlebrush squirreltail	SIRY	---	5-10	---	5-10	2-5	---
inland saltgrass	DISPS2	2-5	---	2-5	2-5	---	---
globemallow	SPHA2	---	---	---	---	1-2	---
thelypody	THELY	---	---	---	---	2-4	---
Bailey greasewood	SAVEB	---	---	---	0-5	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	---
basin big sagebrush	ARTRT	---	---	---	---	---	---
big sagebrush	ARTR2	---	---	---	---	10-25	---
black greasewood	SAVE4	30-50	15-30	30-50	20-30	20-30	---
bud sagebrush	ARSP5	---	2-8	---	2-5	---	---
fourwing saltbush	ATCA2	2-5	---	2-5	---	---	---
seepweed	SUAED	---	2-8	---	---	---	---
shadscale	ATCO	2-5	30-50	2-5	20-35	---	---
spiny hopsage	GRSP	---	---	---	---	5-15	---
Range site number		027XY016NV	024XY003NV	027XY016NV	027XY024NV	024XY022NV	none
Potential production (lb/acre):							
Favorable years		500	600	500	500	800	
Normal years		300	450	300	350	600	
Unfavorable years		150	300	150	150	350	

1594--BOTON COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions					
		Soil name or Inclusion number--					
		BOTON	BOTON	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
alkali sacaton	SPA1	---	---	60-70	5-15	---	---
basin wildrye	ELCI2	---	---	---	50-60	---	30-45
bottlebrush squirreltail	SIHY	5-10	---	---	---	---	---
inland saltgrass	DISPS2	---	2-10	2-10	2-8	---	---
other perennial grasses	PPGG	---	---	---	---	---	2-15
Torrey quailbush	ATTO	---	---	---	---	---	24-35
basin big sagebrush	ARTRT	---	---	---	---	---	2-8
black greasewood	SAVE4	15-30	60-70	1-5	5-15	---	5-10
bud sagebrush	ARSP5	2-8	---	---	---	---	---
iodinebush	ALOC2	---	---	10-20	---	---	---
rubber rabbitbrush	CHNA2	---	---	---	2-5	---	---
seepweed	SUAED	2-8	2-8	---	---	---	---
shadscale	ATCO	30-50	2-10	---	---	---	---

Range site number	024XY003NV	027XY025NV	024XY010NV	024XY007NV	none	024XY015NV
Potential production (lb/acre):						
Favorable years	600	500	450	1900		1500
Normal years	450	350	300	1400		1200
Unfavorable years	300	200	150	800		800

1600--CLURDE LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions	
		Soil name or Inclusion number--	
		CLURDE	BOTON
Nevada bluegrass	PONE3	---	5-10
basin wildrye	ELCI2	55-65	60-70
creeping wildrye	ELTR3	5-15	---
mat muhly	MURI	---	2-8
streambank wheatgrass	AGDAR	---	2-8
western wheatgrass	AGSM	5-15	---
basin big sagebrush	ARTRT	10-15	5-10
black greasewood	SAVE4	2-8	---
Range site number		024XY006NV	025XY003NV
Potential production (lb/acre):			
Favorable years		1500	4500
Normal years		1100	3500
Unfavorable years		600	2000

1610--GOCHEA-IGDELL ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		GOCHEA	GOCHEA	IGDELL	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Canby bluegrass	POCA	---	---	---	---	---	---	---
Idaho fescue	FEID	---	40-60	30-50	---	---	---	---
Nevada bluegrass	PONE3	---	2-8	---	---	---	5-10	40-60
Sandberg bluegrass	POSE	---	---	---	---	2-5	---	---
Thurber needlegrass	STTH2	10-20	---	---	5-15	15-25	---	---
alpine timothy	PHAL2	---	---	---	---	---	---	20-40
basin wildrye	ELCI2	2-8	2-8	---	2-5	---	60-70	2-8
bluebunch wheatgrass	AGSP	20-35	5-15	15-30	60-80	25-40	---	---
bluegrass	POA++	2-10	---	2-10	---	---	---	---
mat muhly	MURI	---	---	---	---	---	2-8	2-8
meadow barley	HOBR2	---	---	---	---	---	---	2-5
sedge	CAREX	---	---	---	---	---	---	2-8
streambank wheatgrass	AGDAR	---	---	---	---	---	2-8	---
Wyoming big sagebrush	ARTRW	---	---	---	5-15	15-25	---	---
antelope bitterbrush	PUTR2	2-8	---	2-5	1-5	---	---	---
basin big sagebrush	ARTRT	---	10-20	---	---	---	5-10	---
big sagebrush	ARTR2	10-15	---	---	---	---	---	---
low sagebrush	ARAR8	---	---	15-25	---	---	---	---
mountain big sagebrush	ARVA2	---	---	---	---	---	---	---

Range site number	025XY014NV	025XY027NV	025XY017NV	025XY015NV	025XY019NV	025XY003NV	025XY006NV
Potential production (lb/acre):							
Favorable years	1000	1300	900	1000	800	4500	2000
Normal years	800	900	700	700	600	3500	1300
Unfavorable years	600	500	400	500	400	2000	800

1620--WESO VERY FINE SANDY LOAM, 2 TO 4 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		WESO	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	15-30	5-15
basin wildrye	ELCI2	---	5-10	---
bottlebrush squirreltail	SIHY	5-10	---	5-10
needleandthread	STCO4	---	30-40	---
Wyoming big sagebrush	ARTRW	---	---	---
basin big sagebrush	ARTRT	---	---	---
big sagebrush	ARTR2	---	15-25	---
bud sagebrush	ARSP5	20-30	---	20-30
shadscale	ATCO	30-40	---	30-40
spiny hopsage	GRSP	2-5	1-5	2-5
winterfat	EULA5	2-5	---	2-5
Range site number		024XY002NV	024XY017NV	024XY002NV
Potential production (lb/acre):				
Favorable years		750	900	750
Normal years		450	700	450
Unfavorable years		300	500	300

1621--WESO-WHOLAN COMPLEX

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions			
		Soil name or Inclusion number--			
		WESO	WHOLAN	Inclusion 1	Inclusion 2
Indian ricegrass	ORHY	5-15	15-25	5-15	5-15
Sandberg bluegrass	POSE	---	---	---	2-8
Thurber needlegrass	STH2	---	---	---	15-25
bottlebrush squirreltail	SIHY	5-10	2-8	5-10	2-5
globemallow	SPHAE	---	---	---	1-2
Wyoming big sagebrush	ARTRW	---	---	---	25-35
bud sagebrush	ARSP5	20-30	2-5	20-30	---
shadscale	ATCO	30-40	---	30-40	---
spiny hopsage	GRSP	2-5	---	2-5	5-15
winterfat	EULA5	2-5	60-70	2-5	---
Range site number		024XY002NV	024XY004NV	024XY002NV	024XY020NV
Potential production (lb/acre):					
Favorable years		750	500	750	700
Normal years		450	350	450	450
Unfavorable years		300	200	300	300

1622--WESO-DAVEY-BROYLES ASSOCIATION

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions						
		Soil name or Inclusion number--						
		WESO	DAVEY	BROYLES	Inclusion 1	Inclusion 2	Inclusion 3	Inclusion 4
Indian ricegrass	ORHY	5-15	15-30	15-25	30-40	5-15	5-15	20-30
Sandberg bluegrass	POSE	---	---	---	---	---	2-8	---
Thurber needlegrass	STH2	---	---	---	---	---	15-25	---
basin wildrye	ELCI2	---	5-10	---	2-8	---	---	---
bottlebrush squirreltail	SIHY	5-10	---	2-8	---	5-10	2-5	2-5
needleandthread	STCO4	---	30-40	---	5-15	---	---	5-10
thickspike wheatgrass	AGDA	---	---	---	5-10	---	---	---
canadagre	RUHY	---	---	---	1-3	---	---	---
globemallow	SPHA2	---	---	---	---	---	1-2	---
lemon scurfpea	PSLA	---	---	---	1-3	---	---	---
tufted eveningprimrose	OECE2	---	---	---	1-3	---	---	---
Wyoming big sagebrush	ARTRW	---	---	---	---	---	25-35	---
basin big sagebrush	ARTRT	---	---	---	25-30	---	---	---
big sagebrush	ARTR2	---	15-25	---	---	---	---	---
bud sagebrush	ARSP5	20-30	---	2-5	---	20-30	---	---
dalea	DALEA	---	---	---	---	---	---	2-5
fourwing saltbush	ATCA2	---	---	---	2-8	---	---	5-10
shadscale	ATCO	30-40	---	---	---	30-40	---	5-10
spiny hopsage	GRSP	2-5	1-5	---	2-8	2-5	5-15	10-20
winterfat	EULA5	2-5	---	60-70	---	2-5	---	---

Range site number	024XY002NV	024XY017NV	024XY004NV	024XY001NV	024XY002NV	024XY020NV	024XY055NV
Potential production (lb/acre):							
Favorable years	750	900	500	800	750	700	600
Normal years	450	700	350	500	450	450	400
Unfavorable years	300	500	200	300	300	300	250

1630--BLISS LOAM, 0 TO 2 PERCENT SLOPES

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions		
		Soil name or Inclusion number--		
		BLISS	Inclusion 1	Inclusion 2
Canby bluegrass	POCA	---	---	---
Cusick bluegrass	POCU3	---	---	---
Nevada bluegrass	PONE3	---	---	---
Thurber needlegrass	STTH2	40-50	20-30	5-10
basin wildrye	ELCI2	---	2-5	60-70
bluebunch wheatgrass	AGSP	2-10	30-40	---
bluegrass	POA++	---	2-8	---
mat muhly	MURI	---	---	2-8
streambank wheatgrass	AGDAR	---	---	2-8
globemallow	SPHAE	1-3	---	---
Wyoming big sagebrush	ARTRW	25-35	---	---
basin big sagebrush	ARTRT	---	---	5-10
big sagebrush	ARTR2	---	10-15	---
mountain big sagebrush	ARVA2	---	---	---
spiny hopsage	GRSP	2-5	---	---
Range site number		024XY005NV	024XY013NV	025XY003NV
Potential production (lb/acre):				
Favorable years		800	1000	4500
Normal years		600	800	3500
Unfavorable years		400	600	2000

1631--BLISS VERY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

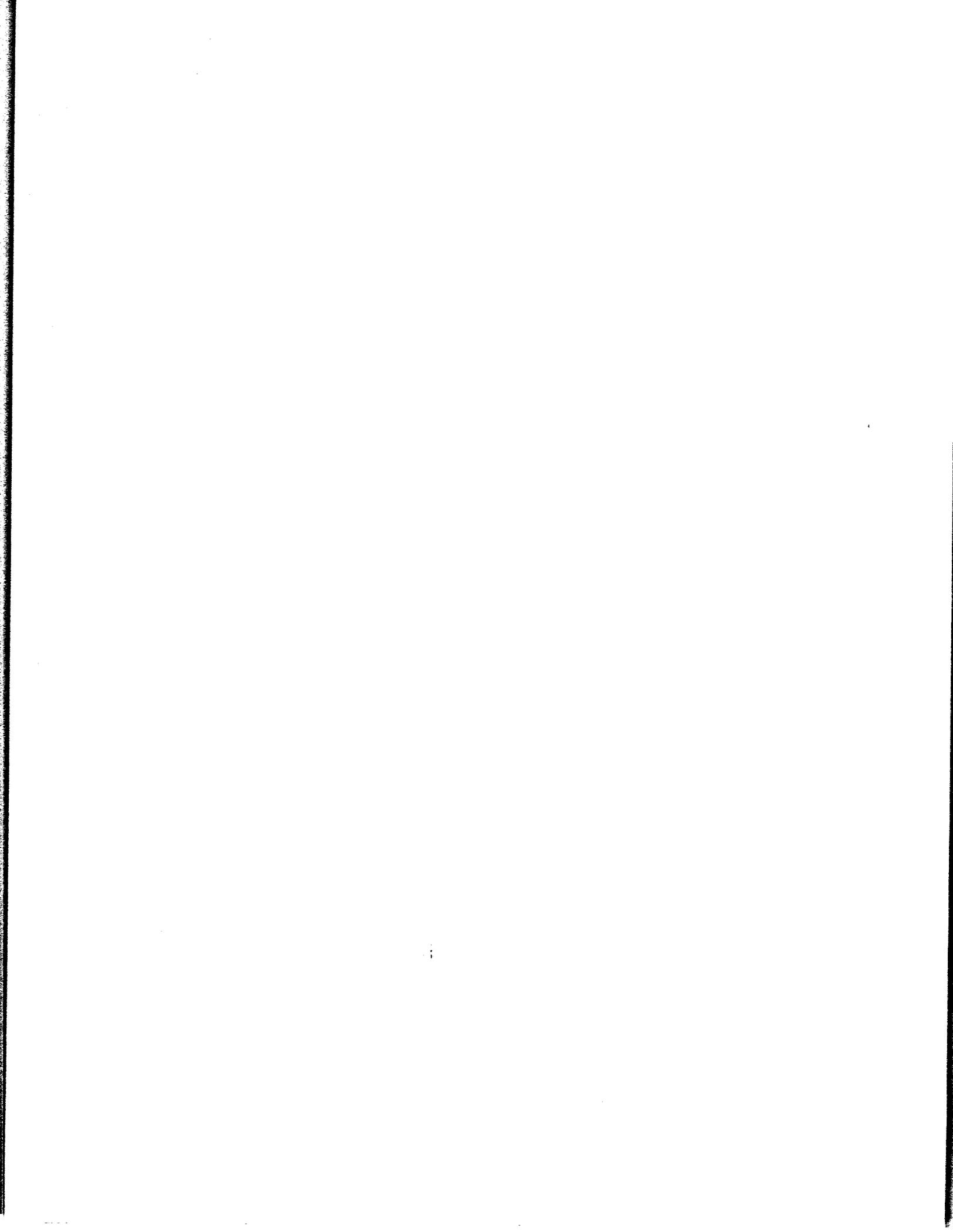
[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions	
		Soil name or Inclusion number--	
		BLISS	Inclusion 1
Thurber needlegrass	STTH2	40-50	40-50
bluebunch wheatgrass	AGSP	2-10	2-10
globemallow	SPHAE	1-3	1-3
Wyoming big sagebrush	ARTRW	25-35	25-35
spiny hopsage	GRSP	2-5	2-5
Range site number		024XY005NV	024XY005NV
Potential production (lb/acre):			
Favorable years		800	800
Normal years		600	600
Unfavorable years		400	400

1640--KLECK LOAM

[Absence of an entry indicates that the named plant is not a key species in the potential native plant community.]

Common plant name	Plant symbol	Percentage composition and production (dry weight) of plants on major soils and inclusions	
		Soil name or Inclusion number--	
		KLECK	Inclusion 1
Indian ricegrass	ORHY	2-5	---
Thurber needlegrass	STTH2	---	40-50
basin wildrye	ELCI2	5-20	---
bluebunch wheatgrass	AGSP	---	2-10
bottlebrush squirreltail	SIHY	2-5	---
globemallow	SPHAE	1-2	1-3
thelypody	THELY	2-4	---
Wyoming big sagebrush	ARTRW	---	25-35
basin big sagebrush	ARTRT	---	---
big sagebrush	ARTR2	10-25	---
black greasewood	SAVE4	20-30	---
spiny hopsage	GRSP	5-15	2-5
Range site number		024XY022NV	024XY005NV
Potential production (lb/acre):			
Favorable years		800	800
Normal years		600	600
Unfavorable years		350	400



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