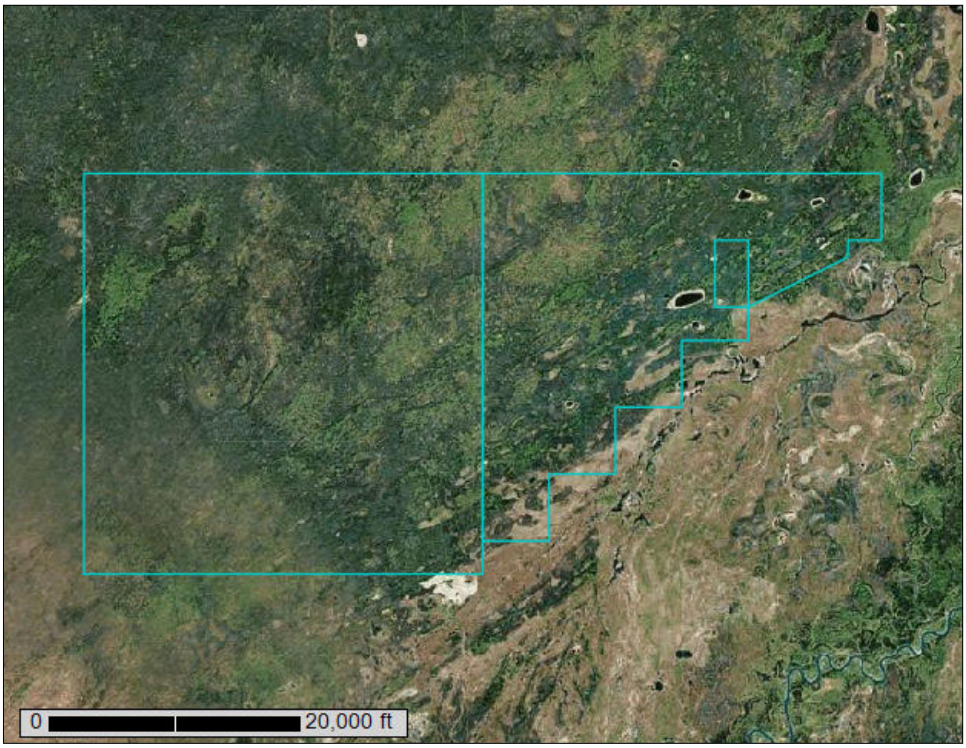
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Totchaket Area, Alaska



May 3, 2020

Preface

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

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

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

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

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

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

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various 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 observed and described many soil profiles. A soil profile 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 or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

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

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

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

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

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.

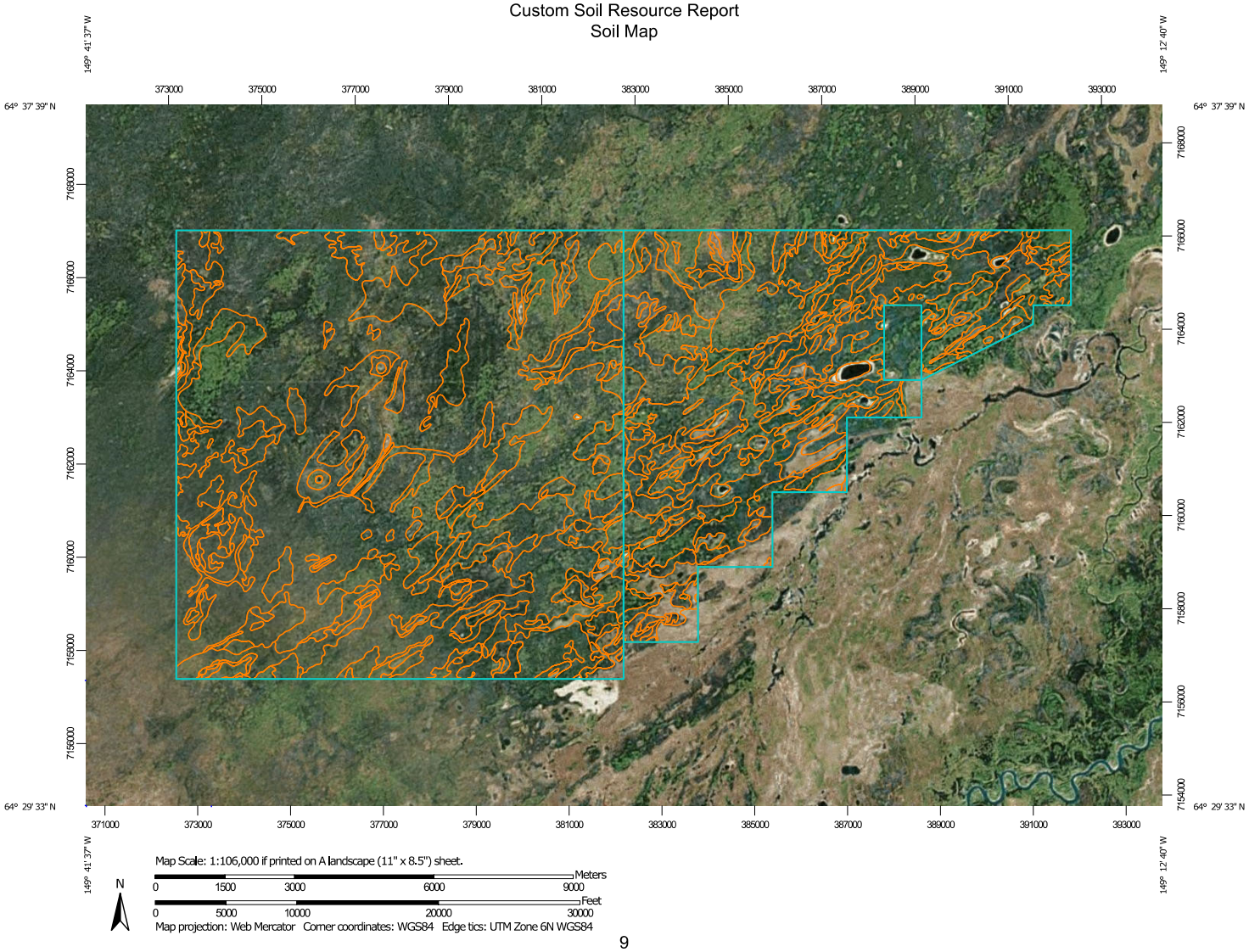
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree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

Soil Map

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


149° 41' 37" W
149° 12' 40" W
64° 37' 39" N
64° 29' 33" N
373000
375000
377000
379000
381000
383000
385000
387000
389000
391000
393000
7168000
7166000
7164000
7162000
7160000
7158000
7156000
7154000
371000
Map Scale: 1:106,000 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0
1500
3000
6000
9000
Feet
0
5000
10000
20000
30000
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 6N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Totchaket Area, Alaska
Survey Area Data: Version 15, Oct 22, 2019

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

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Beales silt loam, nearly level	65.6	0.2%
2	Beales silt loam, undulating	101.7	0.3%
3	Bolio peat	182.7	0.5%
4	Bradway very fine sandy loam	10.8	0.0%
5	Dotlake silt loam	437.0	1.3%
9	Tanacross silt loam	1,383.5	4.0%
10	Kantishna peat	6.3	0.0%
11	Koyukuk silt loam, nearly level	558.8	1.6%
12	Koyukuk silt loam, undulating	2,975.1	8.6%
13	Koyukuk silt loam, rolling	39.4	0.1%
14	Nenana silt loam, moderately deep, nearly level	342.1	1.0%
15	Nenana silt loam, moderately deep, undulating	386.0	1.1%
17	Nenana silt loam, shallow, nearly level	2,520.9	7.3%
18	Nenana silt loam, shallow, undulating	15,152.7	43.6%
19	Nenana silt loam, shallow, rolling	3,052.9	8.8%
20	Nenana silt loam, shallow, hilly	426.0	1.2%
21	Richardson silt loam	3,719.5	10.7%
23	Tanana silt loam	9.1	0.0%
24	Teklanika loamy fine sand, rolling	678.9	2.0%
25	Teklanika loamy fine sand, hilly	266.2	0.8%
26	Teklanika loamy fine sand, steep	34.7	0.1%
27	Teklanika loamy fine sand, very steep	22.6	0.1%
28	Toklat silt loam	185.8	0.5%
29	Toklat-Bolio complex	438.2	1.3%
30	Volkmar silt loam	1,719.9	4.9%
W	Water	52.8	0.2%
Totals for Area of Interest		**34,769.3**	**100.0%**

Map Unit Descriptions

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

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

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

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

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

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

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

shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

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

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

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

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

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

Totchaket Area, Alaska

1—Beales silt loam, nearly level

Map Unit Setting

National map unit symbol: 1nbw
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Beales and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Beales

Setting

Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Loess over eolian sands

Typical profile

Ap - 0 to 4 inches: very fine sandy loam
Bw, 2Bw - 4 to 7 inches: very fine sandy loam
2C - 7 to 59 inches: sand
3C - 59 to 72 inches: coarse sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Dotlake

Percent of map unit: 3 percent
Landform: Depressions on plains

Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Tanacross
Percent of map unit: 3 percent
Landform: Alluvial flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Nenana, sandy substratum
Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Toklat
Percent of map unit: 2 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Volkmar, sandy substratum
Percent of map unit: 2 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Teklanika
Percent of map unit: 2 percent
Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

2—Beales silt loam, undulating

Map Unit Setting
National map unit symbol: 1nc7
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Beales and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Beales

Setting

Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Loess over eolian sands

Typical profile

Ap - 0 to 4 inches: very fine sandy loam
Bw, 2Bw - 4 to 7 inches: very fine sandy loam
2C - 7 to 59 inches: sand
3C - 59 to 72 inches: coarse sand

Properties and qualities

Slope: 3 to 7 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Dotlake

Percent of map unit: 3 percent
Landform: Depressions on plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Nenana, sandy substratum

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Tanacross
Percent of map unit: 3 percent
Landform: Alluvial flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Volkmar, sandy substratum
Percent of map unit: 2 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Toklat
Percent of map unit: 2 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Teklanika
Percent of map unit: 2 percent
Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

3—Bolio peat

Map Unit Setting
National map unit symbol: 1ncl
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition
Bolio, frequent, very long ponding, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bolio, Frequent, Very Long Ponding

Setting
Landform: Depressions
Down-slope shape: Concave

Across-slope shape: Concave
Parent material: Organic material

Typical profile

Oi - 0 to 3 inches: peat
Oe1 - 3 to 8 inches: mucky peat
Oe2f - 8 to 72 inches: mucky peat

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 4 to 16 inches to permafrost
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water storage in profile: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): 7w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Tanacross

Percent of map unit: 4 percent
Landform: Alluvial flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Kantishna

Percent of map unit: 4 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Dotlake

Percent of map unit: 4 percent
Landform: Depressions on plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Volkmar, sandy substratum

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

4—Bradway very fine sandy loam

Map Unit Setting

National map unit symbol: 1ncp
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Bradway and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bradway

Setting

Landform: Depressions
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Alluvium

Typical profile

Oi - 0 to 7 inches: slightly decomposed plant material
A - 7 to 10 inches: mucky silt loam
Cg - 10 to 26 inches: stratified very fine sandy loam to fine sand
Cfg - 26 to 72 inches: material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 18 to 35 inches to permafrost
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Occasional
Frequency of ponding: Frequent
Calcium carbonate, maximum in profile: 1 percent
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Salchaket
Percent of map unit: 8 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Tanana, occasional brief flooding
Percent of map unit: 7 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

5—Dotlake silt loam

Map Unit Setting
National map unit symbol: 1ncq
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition
Dotlake and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dotlake

Setting
Landform: Depressions on plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Micaceous silty alluvium and/or loamy alluvium over sandy alluvium

Typical profile
Oi - 0 to 3 inches: slightly decomposed plant material
A - 3 to 4 inches: silt loam
Bg - 4 to 15 inches: silt loam
2C - 15 to 32 inches: stratified fine sand to silt loam
2Cf - 32 to 72 inches: material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 5 to 39 inches to permafrost
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 0 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Beales

Percent of map unit: 4 percent
Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Tanacross

Percent of map unit: 4 percent
Landform: Alluvial flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Nenana, sandy substratum

Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Volkmar, sandy substratum

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

9—Tanacross silt loam

Map Unit Setting

National map unit symbol: 1ncv
Elevation: 400 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Tanacross and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tanacross

Setting

Landform: Alluvial flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Organic material over alluvium

Typical profile

Oi - 0 to 9 inches: peat
A - 9 to 11 inches: mucky silt loam
Bjjg - 11 to 17 inches: stratified fine sandy loam to silt loam
Bjjfg - 17 to 72 inches: material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 10 to 28 inches to permafrost
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Rare
Frequency of ponding: Frequent
Available water storage in profile: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Volkmar, sandy substratum
Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Bradway
Percent of map unit: 3 percent
Landform: Depressions
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Bolio, frequent, very long ponding
Percent of map unit: 3 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Lemeta, frequent, very long ponding
Percent of map unit: 3 percent
Landform: Fens on terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave, linear
Across-slope shape: Concave
Hydric soil rating: Yes

Tanana, occasional brief flooding
Percent of map unit: 3 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

10—Kantishna peat

Map Unit Setting
National map unit symbol: 1nbx
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Kantishna and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kantishna

Setting

Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Organic material

Typical profile

Oi1 - 0 to 20 inches: peat
Oi2 - 20 to 72 inches: peat

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 20.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Frequent
Frequency of ponding: Frequent
Available water storage in profile: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Volkmar, sandy substratum

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Bradway

Percent of map unit: 3 percent
Landform: Depressions
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Bolio, frequent, very long ponding

Percent of map unit: 3 percent
Landform: Depressions
Down-slope shape: Concave

Across-slope shape: Concave
Hydric soil rating: Yes

Tanana, occasional brief flooding
Percent of map unit: 3 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Tanacross
Percent of map unit: 3 percent
Landform: Alluvial flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

11—Koyukuk silt loam, nearly level

Map Unit Setting
National map unit symbol: 1nby
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition
Koyukuk and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Koyukuk

Setting
Landform: Alluvial fans
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Talf
Microfeatures of landform position: Mounds
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over eolian sands

Typical profile
Oe - 0 to 4 inches: moderately decomposed plant material
A - 4 to 11 inches: silt loam
Bw - 11 to 22 inches: silt loam
C1 - 22 to 72 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very high (about 14.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Nenana, sandy substratum

Percent of map unit: 8 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Beales

Percent of map unit: 7 percent
Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

12—Koyukuk silt loam, undulating

Map Unit Setting

National map unit symbol: 1nbz
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Koyukuk and similar soils: 85 percent
Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Koyukuk

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Talf
Microfeatures of landform position: Mounds
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over eolian sands

Typical profile

Oe - 0 to 4 inches: moderately decomposed plant material
A - 4 to 11 inches: silt loam
Bw - 11 to 22 inches: silt loam
C1 - 22 to 72 inches: silt loam

Properties and qualities

Slope: 0 to 7 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very high (about 14.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Nenana, sandy substratum

Percent of map unit: 8 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Beales

Percent of map unit: 4 percent
Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Tanacross

Percent of map unit: 3 percent

Landform: Alluvial flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

13—Koyukuk silt loam, rolling

Map Unit Setting
National map unit symbol: 21zl5
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition
Koyukuk, silty substratum, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Koyukuk, Silty Substratum

Setting
Landform: Alluvial fans
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Talf
Microfeatures of landform position: Mounds
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over eolian sands

Typical profile
Oe - 0 to 4 inches: moderately decomposed plant material
A - 4 to 11 inches: silt loam
Bw - 11 to 22 inches: silt loam
C1 - 22 to 72 inches: silt loam

Properties and qualities
Slope: 7 to 12 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very high (about 14.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Nenana

Percent of map unit: 8 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Beales

Percent of map unit: 7 percent
Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

14—Nenana silt loam, moderately deep, nearly level

Map Unit Setting

National map unit symbol: 1nc1
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Nenana, sandy substratum, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nenana, Sandy Substratum

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over alluvium

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
Bw - 2 to 21 inches: silt loam
2C - 21 to 72 inches: sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Richardson

Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Koyukuk

Percent of map unit: 5 percent
Landform: Alluvial fans
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Talf
Microfeatures of landform position: Mounds
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Volkmar, sandy substratum

Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

15—Nenana silt loam, moderately deep, undulating

Map Unit Setting

National map unit symbol: 1nc2
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Nenana, sandy substratum, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nenana, Sandy Substratum

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over alluvium

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
Bw - 2 to 21 inches: silt loam
2C - 21 to 72 inches: sand

Properties and qualities

Slope: 3 to 7 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Richardson
Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Beales
Percent of map unit: 4 percent
Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Koyukuk
Percent of map unit: 4 percent
Landform: Alluvial fans
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Talf
Microfeatures of landform position: Mounds
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Volkmar, sandy substratum
Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

17—Nenana silt loam, shallow, nearly level

Map Unit Setting
National map unit symbol: 1nc4
Elevation: 500 to 1,300 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition
Nenana, sandy substratum, and similar soils: 85 percent
Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nenana, Sandy Substratum

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over alluvium

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
Bw - 2 to 21 inches: silt loam
2C - 21 to 72 inches: sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Richardson

Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Koyukuk

Percent of map unit: 4 percent
Landform: Alluvial fans
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Talf
Microfeatures of landform position: Mounds
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Beales

Percent of map unit: 4 percent
Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit

Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Volkmar, sandy substratum

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

18—Nenana silt loam, shallow, undulating

Map Unit Setting

National map unit symbol: 1nc5
Elevation: 500 to 1,300 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Nenana, sandy substratum, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nenana, Sandy Substratum

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over alluvium

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
Bw - 2 to 21 inches: silt loam
2C - 21 to 72 inches: sand

Properties and qualities

Slope: 3 to 7 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

Frequency of ponding: Occasional
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Richardson
Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Koyukuk
Percent of map unit: 4 percent
Landform: Alluvial fans
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Talf
Microfeatures of landform position: Mounds
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Beales
Percent of map unit: 4 percent
Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Volkmar, sandy substratum
Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

19—Nenana silt loam, shallow, rolling

Map Unit Setting
National map unit symbol: 1nc6
Elevation: 500 to 1,300 feet

Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition
Nenana, sandy substratum, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nenana, Sandy Substratum

Setting
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over alluvium

Typical profile
Oe - 0 to 2 inches: moderately decomposed plant material
Bw - 2 to 21 inches: silt loam
2C - 21 to 72 inches: sand

Properties and qualities
Slope: 7 to 12 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Koyukuk
Percent of map unit: 4 percent
Landform: Alluvial fans
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Talf
Microfeatures of landform position: Mounds
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Beales
Percent of map unit: 4 percent
Landform: Dunes on alluvial fans

Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Richardson

Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Volkmar, sandy substratum

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

20—Nenana silt loam, shallow, hilly

Map Unit Setting

National map unit symbol: 1nc8
Elevation: 500 to 1,300 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Nenana, sandy substratum, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nenana, Sandy Substratum

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over alluvium

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
Bw - 2 to 21 inches: silt loam
2C - 21 to 72 inches: sand

Properties and qualities

Slope: 12 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Available water storage in profile: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Richardson

Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Koyukuk

Percent of map unit: 4 percent
Landform: Alluvial fans
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Talf
Microfeatures of landform position: Mounds
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Beales

Percent of map unit: 4 percent
Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Volkmar, sandy substratum

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

21—Richardson silt loam

Map Unit Setting

National map unit symbol: 1nc9
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Farmland of local importance

Map Unit Composition

Richardson and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Richardson

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over alluvium

Typical profile

O - 0 to 1 inches: slightly decomposed plant material
Bw - 1 to 20 inches: silt loam
BC - 20 to 59 inches: silt loam
2C - 59 to 72 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water storage in profile: Very high (about 12.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Tanana, occasional brief flooding
Percent of map unit: 4 percent
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Tanacross
Percent of map unit: 4 percent
Landform: Alluvial flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Nenana, sandy substratum
Percent of map unit: 4 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Volkmar, sandy substratum
Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

23—Tanana silt loam

Map Unit Setting
National map unit symbol: 1ncc
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition
Tanana, occasional brief flooding, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tanana, Occasional Brief Flooding

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or loess over alluvium

Typical profile

Oi - 0 to 3 inches: slightly decomposed plant material
A - 3 to 6 inches: mucky silt loam
Bjjg - 6 to 25 inches: very fine sandy loam
Cjjfg - 25 to 72 inches: material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 16 to 47 inches to permafrost
Natural drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Occasional
Frequency of ponding: Frequent
Calcium carbonate, maximum in profile: 1 percent
Available water storage in profile: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Tanacross

Percent of map unit: 5 percent
Landform: Alluvial flats
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Salchaket

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Bradway

Percent of map unit: 5 percent
Landform: Depressions
Landform position (three-dimensional): Talf
Down-slope shape: Concave

Across-slope shape: Concave
Hydric soil rating: Yes

24—Teklanika loamy fine sand, rolling

Map Unit Setting

National map unit symbol: 1ncd
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Teklanika and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Teklanika

Setting

Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian sands

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 6 inches: loamy fine sand
AC,C - 6 to 72 inches: fine sand

Properties and qualities

Slope: 7 to 12 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Nenana, sandy substratum
Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Dotlake
Percent of map unit: 5 percent
Landform: Depressions on plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Beales
Percent of map unit: 5 percent
Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

25—Teklanika loamy fine sand, hilly

Map Unit Composition
Teklanika and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Teklanika

Setting
Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian sands

Typical profile
Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 6 inches: loamy fine sand
AC,C - 6 to 72 inches: fine sand

Properties and qualities
Slope: 12 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.0 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Teklanika, steeper slopes
Percent of map unit: 5 percent
Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Dotlake
Percent of map unit: 5 percent
Landform: Depressions on plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Teklanika, less steep slopes
Percent of map unit: 5 percent
Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

26—Teklanika loamy fine sand, steep

Map Unit Composition
Teklanika and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Teklanika

Setting
Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian sands

Typical profile
Oe - 0 to 2 inches: moderately decomposed plant material

A - 2 to 6 inches: loamy fine sand
AC,C - 6 to 72 inches: fine sand

Properties and qualities

Slope: 20 to 30 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Teklanika, less steep slopes

Percent of map unit: 5 percent
Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Dotlake

Percent of map unit: 5 percent
Landform: Depressions on plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Teklanika, steeper slopes

Percent of map unit: 5 percent
Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

27—Teklanika loamy fine sand, very steep

Map Unit Composition

Teklanika and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Teklanika

Setting

Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian sands

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 6 inches: loamy fine sand
AC,C - 6 to 72 inches: fine sand

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Teklanika, steeper slopes

Percent of map unit: 5 percent
Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Dotlake

Percent of map unit: 5 percent
Landform: Depressions on plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Teklanika, less steep slopes

Percent of map unit: 5 percent
Landform: Dunes on outwash plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

28—Toklat silt loam

Map Unit Setting

National map unit symbol: 1ncj
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Toklat and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Toklat

Setting

Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loess over eolian sands

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A,E - 2 to 17 inches: loamy very fine sand
Bsm - 17 to 24 inches: cemented
E' - 24 to 27 inches: loamy very fine sand
Bsm' - 27 to 72 inches: cemented

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 5 to 20 inches to ortstein; 27 inches to ortstein
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 5 to 20 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water storage in profile: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Beales

Percent of map unit: 5 percent

Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Nenana, sandy substratum
Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Volkmar, sandy substratum
Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

29—Toklat-Bolio complex

Map Unit Setting
National map unit symbol: 1nck
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition
Toklat and similar soils: 45 percent
Bolio, frequent, very long ponding, and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Toklat

Setting
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loess over eolian sands

Typical profile
Oe - 0 to 2 inches: moderately decomposed plant material
A,E - 2 to 17 inches: loamy very fine sand
Bsm - 17 to 24 inches: cemented

E' - 24 to 27 inches: loamy very fine sand
Bsm' - 27 to 72 inches: cemented

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 5 to 20 inches to ortstein; 27 inches to ortstein
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 5 to 20 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water storage in profile: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: D
Hydric soil rating: Yes

Description of Bolio, Frequent, Very Long Ponding

Setting

Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Organic material

Typical profile

Oi - 0 to 3 inches: peat
Oe1 - 3 to 8 inches: mucky peat
Oe2f - 8 to 72 inches: mucky peat

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 16 inches to permafrost
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water storage in profile: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): 7w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Volkmar, sandy substratum

Percent of map unit: 15 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread

Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

30—Volkmar silt loam

Map Unit Setting

National map unit symbol: 1ncm
Elevation: 500 to 1,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 25 to 28 degrees F
Frost-free period: 80 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Volkmar, sandy substratum, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Volkmar, Sandy Substratum

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over alluvium

Typical profile

O - 0 to 3 inches: slightly decomposed plant material
Bw - 3 to 10 inches: very fine sandy loam
C1 - 10 to 30 inches: very fine sandy loam
2C2 - 30 to 72 inches: sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water storage in profile: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Richardson

Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Beales

Percent of map unit: 5 percent
Landform: Dunes on alluvial fans
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Nenana, sandy substratum

Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

W—Water

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Landform: Lakes

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: Unranked

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Nonirrigated Capability Class (Cropland)

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 that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels-capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

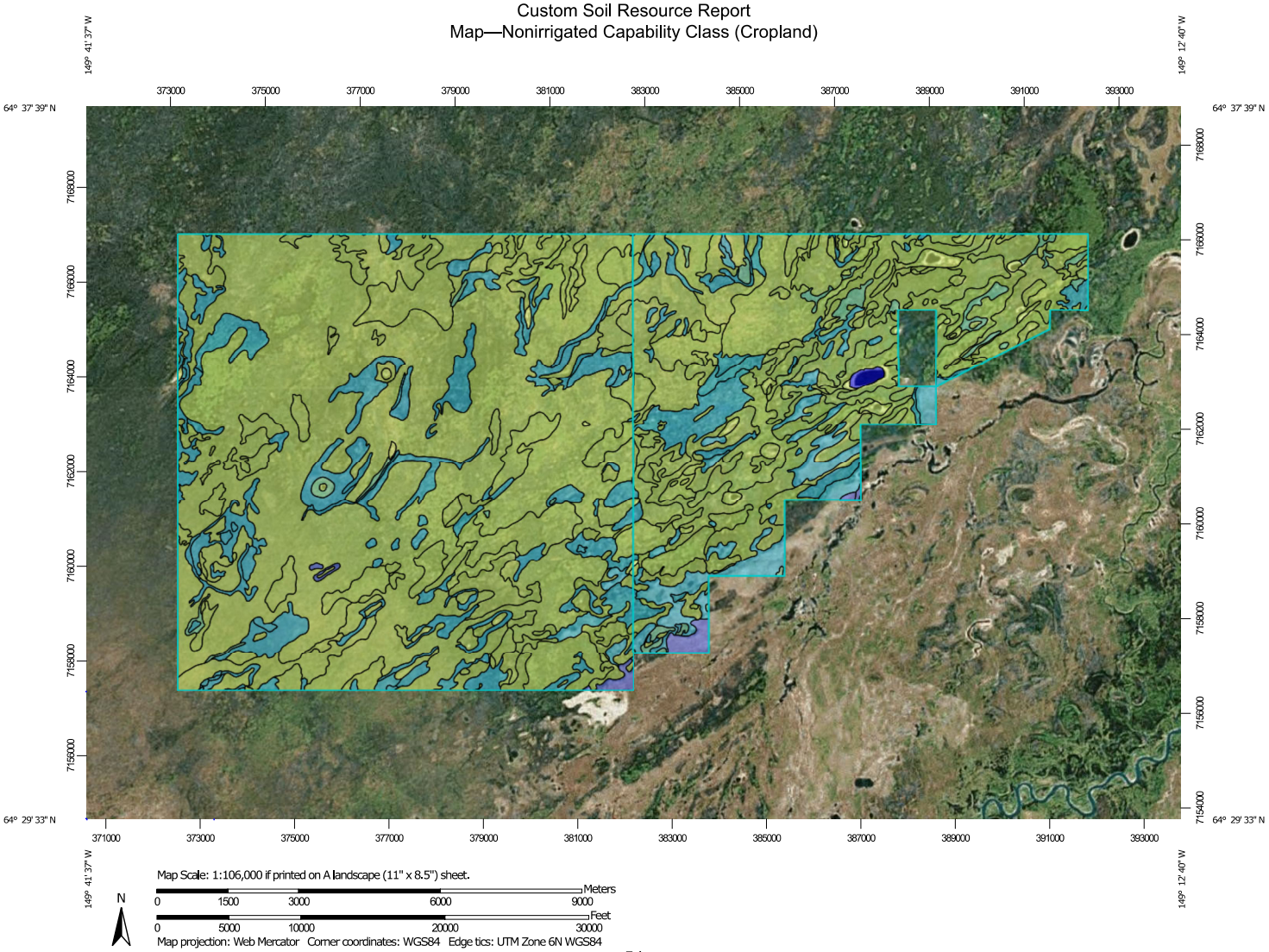
Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Map—Nonirrigated Capability Class (Cropland)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Capability Class - I
- Capability Class - II
- Capability Class - III
- Capability Class - IV
- Capability Class - V
- Capability Class - VI
- Capability Class - VII
- Capability Class - VIII
- Not rated or not available

Soil Rating Lines
- Capability Class - I
- Capability Class - II
- Capability Class - III
- Capability Class - IV
- Capability Class - V
- Capability Class - VI
- Capability Class - VII
- Capability Class - VIII
- Not rated or not available

Soil Rating Points
- Capability Class - I
- Capability Class - II
- Capability Class - III
- Capability Class - IV
- Capability Class - V
- Capability Class - VI
- Capability Class - VII
- Capability Class - VIII
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Totchaket Area, Alaska
Survey Area Data: Version 15, Oct 22, 2019

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

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

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

Table—Nonirrigated Capability Class (Cropland)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1	Beales silt loam, nearly level	4	65.6	0.2%
2	Beales silt loam, undulating	4	101.7	0.3%
3	Bolio peat	7	182.7	0.5%
4	Bradway very fine sandy loam	5	10.8	0.0%
5	Dotlake silt loam	5	437.0	1.3%
9	Tanacross silt loam	6	1,383.5	4.0%
10	Kantishna peat	7	6.3	0.0%
11	Koyukuk silt loam, nearly level	4	558.8	1.6%
12	Koyukuk silt loam, undulating	4	2,975.1	8.6%
13	Koyukuk silt loam, rolling	4	39.4	0.1%
14	Nenana silt loam, moderately deep, nearly level	4	342.1	1.0%
15	Nenana silt loam, moderately deep, undulating	4	386.0	1.1%
17	Nenana silt loam, shallow, nearly level	4	2,520.9	7.3%
18	Nenana silt loam, shallow, undulating	4	15,152.7	43.6%
19	Nenana silt loam, shallow, rolling	6	3,052.9	8.8%
20	Nenana silt loam, shallow, hilly	6	426.0	1.2%
21	Richardson silt loam	4	3,719.5	10.7%
23	Tanana silt loam	5	9.1	0.0%
24	Teklanika loamy fine sand, rolling	6	678.9	2.0%
25	Teklanika loamy fine sand, hilly	6	266.2	0.8%
26	Teklanika loamy fine sand, steep	6	34.7	0.1%
27	Teklanika loamy fine sand, very steep	7	22.6	0.1%
28	Toklat silt loam	4	185.8	0.5%
29	Toklat-Bolio complex	4	438.2	1.3%
30	Volkmar silt loam	4	1,719.9	4.9%
W	Water	8	52.8	0.2%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Totals for Area of Interest			34,769.3	100.0%

Rating Options—Nonirrigated Capability Class (Cropland)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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