PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 23 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_002
Site ID: S2017AK068002

Pedon ID: S2017AK068002
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0719

Soil Name as Described/Sampled: Alpine-tussock-scrub silty loess slopes, frozen

Classification: Coarse-silty, superactive Typic Gelaquepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 52 minutes 15.22 seconds north
Longitude: 149 degrees 14 minutes 25.52 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068002 **Pedon ID:** S2017AK068002

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oi--0 to 7 centimeters (0.0 to 2.8 inches); very dark grayish brown (10YR 3/2) rubbed peat; . Lab sample # 18N02979

C1--7 to 14 centimeters (2.8 to 5.5 inches); dark gray (2.5Y 4/1) broken face silt loam; 7 percent fine prominent irregular masses of oxidized iron with clear boundaries Throughout; 10 percent nonflat subrounded indurated 2 to 20-millimeter Mixed rock fragments. Lab sample # 18N02980

C2--14 to 60 centimeters (5.5 to 23.6 inches); dark gray (2.5Y 4/1) broken face gravelly silt loam; 16 percent nonflat rounded indurated 2 to 20-millimeter Mixed rock fragments. Lab sample # 18N02981

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 23 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_006
Site ID: S2017AK068006

Pedon ID: S2017AK068006
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0720

Soil Name as Described/Sampled: Alpine-tussock-scrub silty loess slopes, frozen

Classification: Coarse-silty, superactive, subgelic Typic Historthels

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 52 minutes 9.68 seconds north
Longitude: 149 degrees 17 minutes 16.75 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068006 **Pedon ID:** S2017AK068006

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oe--0 to 10 centimeters (0.0 to 3.9 inches); very dark brown (7.5YR 2.5/3) rubbed mucky peat; clear smooth boundary. Lab sample # 18N02982

Oa--10 to 30 centimeters (3.9 to 11.8 inches); very dark brown (7.5YR 2.5/2) rubbed muck; abrupt wavy boundary. Lab sample # 18N02983

Cg--30 to 46 centimeters (11.8 to 18.1 inches); very dark grayish brown (2.5Y 3/2) broken face silt loam; friable, nonsticky, nonplastic; 2 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments; abrupt smooth boundary. Lab sample # 18N02984

Cfg--46 to 90 centimeters (18.1 to 35.4 inches); dark gray (2.5Y 4/1) broken face silt loam; moderate thick lenticular structure; 2 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 18N02985

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 22 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_007
Site ID: S2017AK068007

Pedon ID: S2017AK068007
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0721

Soil Name as Described/Sampled: Alpine-tussock-scrub silty loess slopes, frozen

Classification: Coarse-silty, superactive, subgelic Typic Histoturbels

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 52 minutes 41.07 seconds north
Longitude: 149 degrees 16 minutes 39.65 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068007 **Pedon ID:** S2017AK068007

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oi--0 to 7 centimeters (0.0 to 2.8 inches); brown (7.5YR 4/4) rubbed peat; clear smooth boundary. Lab sample # 18N02986

Oa--7 to 26 centimeters (2.8 to 10.2 inches); black (10YR 2/1) rubbed muck; clear smooth boundary. Lab sample # 18N02987

Oe--26 to 34 centimeters (10.2 to 13.4 inches); dark brown (7.5YR 3/4) rubbed mucky peat; clear irregular boundary. Lab sample # 18N02988

Cjjf--34 to 60 centimeters (13.4 to 23.6 inches); 80 percent dark gray (2.5Y 4/1) broken face and 20 percent very dark grayish brown (10YR 3/2) broken face silt loam; weak thin lenticular structure; very firm; 3 percent nonflat subrounded indurated 2 to 5-millimeter Mixed rock fragments. Lab sample # 18N02989

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 22 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_012
Site ID: S2017AK068012

Pedon ID: S2017AK068012
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0722

Soil Name as Described/Sampled: Alpine-tussock-scrub silty loess slopes, frozen

Classification: Coarse-silty, superactive, subgelic Typic Histoturbels

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 52 minutes 10.38 seconds north
Longitude: 149 degrees 16 minutes 24.06 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068012 **Pedon ID:** S2017AK068012

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oi--0 to 7 centimeters (0.0 to 2.8 inches); dark brown (7.5YR 3/3) rubbed peat; clear smooth boundary. Lab sample # 18N02990

Oa--7 to 33 centimeters (2.8 to 13.0 inches); very dark brown (10YR 2/2) rubbed mucky peat; abrupt wavy boundary. Lab sample # 18N02991

Cg--33 to 46 centimeters (13.0 to 18.1 inches); dark grayish brown (2.5Y 4/2) broken face silt loam; friable, nonsticky, nonplastic; 7.5YR 4/6), moist, and 5 percent fine prominent irregular masses of oxidized iron with sharp boundaries Throughout; 7 percent nonflat rounded indurated 2 to 5-millimeter Mixed rock fragments; clear irregular boundary. Lab sample # 18N02992

C/Ajjg--46 to 100 centimeters (18.1 to 39.4 inches); 50 percent very dark gray (2.5Y 3/1) broken face and 25 percent very dark brown (7.5YR 2.5/2) broken face and 25 percent very dark brown (10YR 2/2) broken face silt loam; moderate medium lenticular structure; friable, nonsticky, nonplastic; 7 percent nonflat rounded indurated 2 to 5-millimeter Mixed rock fragments. Lab sample # 18N02993

C/Ajjfg--100 to 120 centimeters (39.4 to 47.2 inches); 50 percent very dark gray (2.5Y 3/1) broken face and 25 percent very dark brown (7.5YR 2.5/2) broken face and 25 percent very dark brown (10YR 2/2) broken face silt loam; strong thin lenticular structure; 7 percent nonflat rounded indurated 2 to 5-millimeter Mixed rock fragments. Lab sample # 18N02994

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 23 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_016
Site ID: S2017AK068016

Pedon ID: S2017AK068016
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0723

Soil Name as Described/Sampled: Alpine-sedge bog organic depressions, frozen

Classification: Loamy, superactive, subgelic Terric Hemistels

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 52 minutes 37.96 seconds north
Longitude: 149 degrees 12 minutes 11.06 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068016 **Pedon ID:** S2017AK068016

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oe--0 to 51 centimeters (0.0 to 20.1 inches); very dark brown (10YR 2/2) rubbed mucky peat; . Lab sample # 18N02995

Cfg--51 to 80 centimeters (20.1 to 31.5 inches); dark gray (5Y 4/1) broken face silt loam; 17 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 18N02996

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 22 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_017
Site ID: S2017AK068017

Pedon ID: S2017AK068017
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0724
Soil Name as Described/Sampled: Subalpine-riparian scrub loamy drains
Classification: Coarse-loamy, superactive, subgelic Typic Fluvaquents

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:
Latitude: 63 degrees 51 minutes 58.41 seconds north
Longitude: 149 degrees 15 minutes 38.96 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068017 **Pedon ID:** S2017AK068017

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oe--0 to 6 centimeters (0.0 to 2.4 inches); very dark brown (7.5YR 2.5/2) rubbed mucky peat; clear smooth boundary. Lab sample # 18N02997

Cg--6 to 30 centimeters (2.4 to 11.8 inches); very dark gray (2.5Y 3/1) broken face stratified sandy loam to silt loam; friable, nonsticky, nonplastic; 5 percent fine faint irregular 2.5Y 5/1), moist, iron depletions with sharp boundaries Throughout and 10 percent medium prominent irregular 7.5YR 3/4), moist, masses of oxidized iron with clear boundaries Throughout; 10 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 18N02998

2Cg--30 to 80 centimeters (11.8 to 31.5 inches); very dark gray (2.5Y 3/1) broken face stratified sand to sandy loam to silt loam; friable, nonsticky, nonplastic; 5 percent fine faint irregular 2.5Y 5/1), moist, iron depletions with sharp boundaries Throughout and 10 percent medium prominent irregular 7.5YR 3/4), moist, masses of oxidized iron with clear boundaries Throughout; 5 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 18N02999

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 21 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_018
Site ID: S2017AK068018

Pedon ID: S2017AK068018
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0725

Soil Name as Described/Sampled: Alpine-sedge bog organic depressions, frozen

Classification: Coarse-silty, superactive Typic Histoturbels

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 51 minutes 44.69 seconds north
Longitude: 149 degrees 14 minutes 58.26 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068018 **Pedon ID:** S2017AK068018

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oi--0 to 7 centimeters (0.0 to 2.8 inches); yellowish brown (10YR 5/6) rubbed peat; clear smooth boundary. Lab sample # 18N03000

Oe--7 to 31 centimeters (2.8 to 12.2 inches); dark brown (7.5YR 3/4) rubbed mucky peat; clear smooth boundary. Lab sample # 18N03001

Cjj--31 to 60 centimeters (12.2 to 23.6 inches); 50 percent dark brown (10YR 3/3) broken face and 50 percent very dark grayish brown (10YR 3/2) broken face silt loam; friable, nonsticky, nonplastic; . Lab sample # 18N03002

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 22 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_020
Site ID: S2017AK068020

Pedon ID: S2017AK068020
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0726
Soil Name as Described/Sampled: Subalpine-riparian scrub loamy drains
Classification: Coarse-loamy, superactive Aquic Cryofluvents

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:
Latitude: 63 degrees 52 minutes 17.12 seconds north
Longitude: 149 degrees 16 minutes 18.03 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068020 **Pedon ID:** S2017AK068020

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oi--0 to 5 centimeters (0.0 to 2.0 inches); very dark grayish brown (10YR 3/2) rubbed slightly decomposed plant material; clear smooth boundary.

C1--5 to 17 centimeters (2.0 to 6.7 inches); brown (10YR 5/3) broken face silt loam; friable, nonsticky, nonplastic; 10 percent medium prominent irregular 7.5YR 3/4), moist, masses of oxidized iron with clear boundaries Throughout; gradual smooth boundary. Lab sample # 18N03003

C/A--17 to 26 centimeters (6.7 to 10.2 inches); 85 percent dark grayish brown (10YR 4/2) broken face and 15 percent very dark grayish brown (10YR 3/2) broken face stratified silt loam; friable, nonsticky, nonplastic; 15 percent medium prominent irregular 7.5YR 4/4), moist, masses of oxidized iron with clear boundaries Throughout; gradual smooth boundary. Lab sample # 18N03004

C2--26 to 51 centimeters (10.2 to 20.1 inches); dark grayish brown (10YR 4/2) broken face silt loam; friable, nonsticky, nonplastic; . Lab sample # 18N03005

Bwb--51 to 80 centimeters (20.1 to 31.5 inches); 80 percent strong brown (7.5YR 5/6) broken face and 20 percent dark grayish brown (10YR 4/2) broken face stratified sandy loam to silt loam; friable, nonsticky, nonplastic; 35 percent medium prominent irregular 7.5YR 4/4), moist, masses of oxidized iron with clear boundaries Throughout. Lab sample # 18N03006

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 21 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_022
Site ID: S2017AK068022

Pedon ID: S2017AK068022
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0727

Soil Name as Described/Sampled: Alpine-tussock-scrub silty loess slopes, frozen

Classification: Coarse-silty Typic Histoturbels

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 53 minutes 13.95 seconds north
Longitude: 149 degrees 12 minutes 46.77 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068022 **Pedon ID:** S2017AK068022

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oe--0 to 22 centimeters (0.0 to 8.7 inches); very dark gray (7.5YR 3/1) rubbed mucky peat; . Lab sample # 18N03007

Bg--22 to 54 centimeters (8.7 to 21.3 inches); brown (10YR 4/3) broken face silt loam; 15 percent medium prominent irregular 7.5YR 4/6), moist, masses of oxidized iron with clear boundaries Throughout and 15 percent medium distinct irregular 2.5Y 5/1), moist, iron depletions with clear boundaries Throughout; 10 percent nonflat subrounded indurated 2 to 20-millimeter Mixed rock fragments. Lab sample # 18N03008

Bjj/A--54 to 90 centimeters (21.3 to 35.4 inches); 45 percent dark yellowish brown (10YR 3/4) broken face and 45 percent very dark grayish brown (10YR 3/2) broken face sandy loam; 10 percent medium prominent irregular 7.5YR 4/6), moist, masses of oxidized iron with clear boundaries Throughout; 2 percent nonflat subangular indurated 20 to 75-millimeter Mixed rock fragments and 10 percent nonflat subrounded indurated 2 to 20-millimeter Mixed rock fragments. Lab sample # 18N03009

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 21 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_026
Site ID: S2017AK068026

Pedon ID: S2017AK068026
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0728
Soil Name as Described/Sampled: Subalpine-riparian scrub loamy drains
Classification: Coarse-silty Typic Cryofluvents

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:
Latitude: 63 degrees 53 minutes 11.22 seconds north
Longitude: 149 degrees 11 minutes 25.26 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068026 **Pedon ID:** S2017AK068026

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oi--0 to 15 centimeters (0.0 to 5.9 inches); dark yellowish brown (10YR 3/4) rubbed peat; . Lab sample # 18N03010

Oe--15 to 26 centimeters (5.9 to 10.2 inches); very dark brown (7.5YR 2.5/2) rubbed mucky peat; . Lab sample # 18N03011

C/O1--26 to 51 centimeters (10.2 to 20.1 inches); 65 percent gray (5Y 5/1) broken face and 15 percent dark brown (7.5YR 3/2) broken face stratified mucky peat to silt loam; 15 percent fine prominent irregular 5YR 4/6), moist, masses of oxidized iron with clear boundaries Throughout. Lab sample # 18N03012. o strata have identifiable leaves and tree needles

C/O2--51 to 60 centimeters (20.1 to 23.6 inches); 60 percent gray (5Y 5/1) broken face and 20 percent very dark grayish brown (10YR 3/2) broken face stratified mucky peat; 15 percent fine prominent irregular 5YR 4/6), moist, masses of oxidized iron with clear boundaries Throughout. Lab sample # 18N03013. o strata have identifiable leaves and tree needles

Cf--60 to 80 centimeters (23.6 to 31.5 inches); gray (N 5/), broken face permanently frozen silt loam; 10 percent fine prominent irregular 5YR 4/6), moist, masses of oxidized iron with clear boundaries Throughout. Lab sample # 18N03014

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 23 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_027
Site ID: S2017AK068027

Pedon ID: S2017AK068027
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0729
Soil Name as Described/Sampled: Subalpine-riparian scrub loamy drains
Classification: Coarse-silty Typic Dystrogelepts

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 52 minutes 3.64 seconds north
Longitude: 149 degrees 15 minutes 21.89 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068027 **Pedon ID:** S2017AK068027

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oe--0 to 12 centimeters (0.0 to 4.7 inches); very dark brown (10YR 2/2) rubbed moderately decomposed plant material; clear smooth boundary. Lab sample # 18N03015

A--12 to 19 centimeters (4.7 to 7.5 inches); very dark grayish brown (10YR 3/2) broken face silt loam; friable, nonsticky, nonplastic; gradual smooth boundary. Lab sample # 18N03016

C--19 to 60 centimeters (7.5 to 23.6 inches); dark yellowish brown (10YR 4/4) broken face silt loam; friable, nonsticky, nonplastic; 10 percent fine distinct irregular iron depletions with clear boundaries Throughout; 2 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 18N03017

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 21 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_029
Site ID: S2017AK068029

Pedon ID: S2017AK068029
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0730
Soil Name as Described/Sampled: Subalpine-riparian scrub loamy drains
Classification: Coarse-loamy Typic Cryofluvents

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 52 minutes 10.36 seconds north
Longitude: 149 degrees 15 minutes 24.60 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068029 **Pedon ID:** S2017AK068029

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oi--0 to 7 centimeters (0.0 to 2.8 inches); yellowish brown (10YR 5/6) rubbed slightly decomposed plant material; clear smooth boundary. Lab sample # 18N03018

Oe--7 to 14 centimeters (2.8 to 5.5 inches); very dark grayish brown (10YR 3/2) rubbed moderately decomposed plant material; abrupt wavy boundary. Lab sample # 18N03019

C1--14 to 25 centimeters (5.5 to 9.8 inches); very dark grayish brown (2.5Y 3/2) broken face stratified sandy loam to silt loam; friable, nonsticky, nonplastic; clear smooth boundary. Lab sample # 18N03020

C/A--25 to 37 centimeters (9.8 to 14.6 inches); 60 percent very dark grayish brown (2.5Y 3/2) broken face and 40 percent very dark brown (10YR 2/2) broken face stratified silt loam to highly organic silt loam; friable, nonsticky, nonplastic; clear smooth boundary. Lab sample # 18N03021

C'2--37 to 60 centimeters (14.6 to 23.6 inches); silt loam; friable, nonsticky, nonplastic; 7.5YR 3/3), moist, and 10 percent fine prominent irregular masses of oxidized iron with clear boundaries Throughout. Lab sample # 18N03022

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 20 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_045
Site ID: S2017AK068045

Pedon ID: S2017AK068045
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0731

Soil Name as Described/Sampled: Alpine-tussock-scrub silty loess slopes, frozen

Classification: Coarse-silty Typic Haploturbels

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 52 minutes 30.76 seconds north
Longitude: 149 degrees 13 minutes 9.73 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068045 **Pedon ID:** S2017AK068045

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oi--0 to 7 centimeters (0.0 to 2.8 inches); very dark brown (10YR 2/2) rubbed slightly decomposed plant material; abrupt wavy boundary. Lab sample # 18N03023

A--7 to 21 centimeters (2.8 to 8.3 inches); olive brown (2.5Y 4/4) broken face highly organic silt loam; friable, nonsticky, nonplastic; clear irregular boundary. Lab sample # 18N03024

C/Ajj1--21 to 32 centimeters (8.3 to 12.6 inches); 80 percent very dark grayish brown (10YR 3/2) broken face and 20 percent very dark brown (10YR 2/2) broken face silt loam; friable, nonsticky, nonplastic; clear broken boundary. Lab sample # 18N03025

Ajj--32 to 43 centimeters (12.6 to 16.9 inches); very dark brown (10YR 2/2) broken face highly organic silt loam; weak fine granular structure; friable, nonsticky, nonplastic; clear irregular boundary. Lab sample # 18N03026

C/A'jj2--43 to 80 centimeters (16.9 to 31.5 inches); 85 percent very dark grayish brown (10YR 3/2) broken face and 15 percent very dark brown (10YR 2/2) broken face silt loam; moderate thin lenticular structure; friable, nonsticky, nonplastic; . Lab sample # 18N03027

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 20 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_046
Site ID: S2017AK068046

Pedon ID: S2017AK068046
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0732

Soil Name as Described/Sampled: Alpine-tussock-scrub silty loess slopes, frozen

Classification: Coarse-silty Typic Haploturbels

Soil Name as Correlated:

Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:

Latitude: 63 degrees 52 minutes 23.14 seconds north
Longitude: 149 degrees 13 minutes 0.49 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:

Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068046 **Pedon ID:** S2017AK068046

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oe--0 to 12 centimeters (0.0 to 4.7 inches); very dark brown (7.5YR 2.5/2) rubbed moderately decomposed plant material; clear wavy boundary. Lab sample # 18N03028

A/Cjj--12 to 25 centimeters (4.7 to 9.8 inches); 60 percent very dark brown (10YR 2/2) broken face and 20 percent very dark grayish brown (10YR 3/2) broken face and 20 percent very dark brown (7.5YR 2.5/2) broken face highly decomposed plant material, gravelly silt loam, gravelly highly organic silt loam; 17 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments; clear wavy boundary. Lab sample # 18N03029. many bits of charcoal

C/Ajj--25 to 70 centimeters (9.8 to 27.6 inches); 65 percent brown (10YR 4/3) broken face and 30 percent very dark brown (10YR 2/2) broken face highly decomposed plant material, gravelly silt loam, gravelly highly organic silt loam; 5 percent fine prominent irregular 7.5YR 4/4), moist, masses of oxidized iron with clear boundaries Throughout; 20 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 18N03030

PEDON DESCRIPTION -- NEON Site HEAL

Print Date: Apr 26 2018
Description Date: Mar 20 2017
Describer: Dennis Mulligan
NEON Plot ID: HEAL_047
Site ID: S2017AK068047

Pedon ID: S2017AK068047
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N0733
Soil Name as Described/Sampled: Alpine-tussock-scrub silty loess slopes, frozen
Classification: Coarse-silty Typic Haplorthels
Soil Name as Correlated:
Classification:
Pedon Type:
Pedon Purpose: research site
Taxon Kind: family
Associated Soils:
Physiographic Division:
Physiographic Province:
Physiographic Section:
State Physiographic Area:
Local Physiographic Area:
Geomorphic Setting: None Assigned
Upslope Shape:
Cross Slope Shape:
Particle Size Control Section:
Description origin: NASIS
Diagnostic Features: ? to ? cm.

Country: United States
State: Alaska
County: Denali Borough
MLRA: 228 -- Interior Alaska Mountains
Soil Survey Area: AK228 -- Interior Alaska Mountains
1-FAI -- Fairbanks, Alaska
Map Unit:
Pit Location:
Quad Name:
Std Latitude:
Std Longitude:
Latitude: 63 degrees 52 minutes 20.19 seconds north
Longitude: 149 degrees 13 minutes 16.60 seconds west
Datum: WGS84
UTM Zone:
UTM Easting:
UTM Northing:
Primary Earth Cover:
Secondary Earth Cover:
Existing Vegetation:
Parent Material:
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2017AK068047 **Pedon ID:** S2017AK068047

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)

Oe--0 to 17 centimeters (0.0 to 6.7 inches); very dark brown (10YR 2/2) rubbed mucky peat; clear smooth boundary. Lab sample # 18N03031

A--17 to 21 centimeters (6.7 to 8.3 inches); black (10YR 2/1) broken face mucky silt loam; weak fine granular structure; very friable, nonsticky, nonplastic; 15 percent medium distinct irregular 7.5YR 3/4), moist, masses of oxidized iron with clear boundaries Throughout; clear smooth boundary. Lab sample # 18N03032

Cf--21 to 70 centimeters (8.3 to 27.6 inches); brown (10YR 4/3) broken face permanently frozen silt loam; moderate medium lenticular structure; very firm, nonsticky, nonplastic; 5 percent nonflat subrounded indurated 5 to 20-millimeter Mixed rock fragments. Lab sample # 18N03033