

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 2 2017  
**Describer:** Matti Kuykendall  
**NEON Plot ID:** DEJU\_004  
**Site ID:** S2017AK240004

**Pedon ID:** S2017AK240004

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0701

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal, mixed Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** ochric epipedon 0 to 8 cm.  
cambic horizon 8 to 26 cm.  
lithologic discontinuity 26 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains  
1-FAI -- Fairbanks, Alaska

**Map Unit:** 618 -- Donnelly-Nenana complex, 0 to 3  
percent slopes

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.9121548

**Std Longitude:** -145.7664533

**Latitude:** 63 degrees 54 minutes 43.51 seconds  
north

**Longitude:** 145 degrees 45 minutes 58.89  
seconds west

**Datum:** WGS84

**UTM Zone:**

**UTM Easting:**

**UTM Northing:**

**Primary Earth Cover:** Shrub cover

**Secondary Earth Cover:** Native shrubs

**Existing Vegetation:**

**Parent Material:**

**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**

**Bedrock Fracture Interval:**

**Surface Fragments:**

**Description database:** KSSL

Cont. Site ID: S2017AK240004

Pedon ID: S2017AK240004

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
2.0	1,533.0	211								

A--0 to 8 centimeters (0.0 to 3.1 inches); black (10YR 2/1) broken face silt loam; 15 percent sand; 78 percent silt; 7 percent clay; weak medium granular structure; friable, nonsticky, nonplastic; common very fine roots and common very coarse roots and common medium roots and common fine roots and common coarse roots; 5 percent nonflat rounded indurated Mixed rock fragments; slightly acid, pH 6.3, pH meter; clear smooth boundary. Lab sample # 18N02905

Bw--8 to 26 centimeters (3.1 to 10.2 inches); 70 percent brown (7.5YR 4/3) broken face and 30 percent yellowish brown (10YR 5/4) broken face loam; 50 percent sand; 37 percent silt; 13 percent clay; moderate medium subangular blocky parts to weak fine platy structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots and common coarse roots; 5 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat rounded indurated 75 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.2, pH meter; clear irregular boundary. Lab sample # 18N02906

2BC--26 to 35 centimeters (10.2 to 13.8 inches); olive brown (2.5Y 4/3) broken face very cobbly sandy loam; 65 percent sand; 23 percent silt; 12 percent clay; very friable, nonsticky, nonplastic; common medium roots and common fine roots; 20 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments and 30 percent nonflat rounded indurated 75 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.4, pH meter; gradual wavy boundary. Lab sample # 18N02907

2C1--35 to 55 centimeters (13.8 to 21.7 inches); olive brown (2.5Y 4/3) broken face very cobbly sand; 90 percent sand; 7 percent silt; 3 percent clay; structureless single grain; loose, nonsticky, nonplastic; common very fine roots and common fine roots; 30 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments and 30 percent nonflat rounded indurated 75 to 250-millimeter Mixed rock fragments; neutral, pH 6.6, pH meter; clear smooth boundary. Lab sample # 18N02908

2C2--55 to 100 centimeters (21.7 to 39.4 inches); brown (10YR 4/3) broken face very gravelly coarse sand; 95 percent sand; 3 percent silt; 2 percent clay; structureless single grain; 10 percent nonflat rounded indurated 75 to 250-millimeter Mixed rock fragments and 50 percent nonflat rounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 18N02909

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 1 2017  
**Describer:** Matti Kuykendall  
**NEON Plot ID:** DEJU\_005  
**Site ID:** S2017AK240005

**Pedon ID:** S2017AK240005

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0702

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal, mixed Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** ochric epipedon 0 to 6 cm.  
cambic horizon 6 to 12 cm.  
lithologic discontinuity 12 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:** 618 -- Donnelly-Nenana complex, 0 to 3  
percent slopes

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8966997

**Std Longitude:** -145.7542748

**Latitude:** 63 degrees 53 minutes 47.87 seconds  
north

**Longitude:** 145 degrees 45 minutes 14.76  
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: S2017AK240005

Pedon ID: S2017AK240005

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
2.0	1,578.0	256								

A--0 to 6 centimeters (0.0 to 2.4 inches); black (10YR 2/1) broken face highly organic silt loam; 20 percent sand; 6 percent clay; moderate medium granular structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots and coarse roots; slightly acid, pH 6.4, pH meter; clear smooth boundary. Lab sample # 18N02910

Bw--6 to 12 centimeters (2.4 to 4.7 inches); brown (10YR 4/3) broken face gravelly loam; 45 percent sand; 12 percent clay; weak medium subangular blocky structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots; 5 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments and 13 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments; neutral, pH 6.6, pH meter; clear smooth boundary. Lab sample # 18N02911

2BC1--12 to 50 centimeters (4.7 to 19.7 inches); light olive brown (2.5Y 5/4) broken face very gravelly sand; 95 percent sand; 3 percent clay; structureless single grain; loose, nonsticky, nonplastic; very fine roots and fine roots; nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; neutral, pH 6.9, pH meter; gradual wavy boundary. Lab sample # 18N02912

2BC2--50 to 70 centimeters (19.7 to 27.6 inches); light olive brown (2.5Y 5/4) broken face very gravelly sandy loam; 65 percent sand; 7 percent clay; weak fine subangular blocky structure; friable, nonsticky, nonplastic; very fine roots and fine roots; 50 percent nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; neutral, pH 6.8, pH meter; gradual wavy boundary. Lab sample # 18N02913

2C--70 to 100 centimeters (27.6 to 39.4 inches); light olive brown (2.5Y 5/3) broken face very gravelly sand; 90 percent sand; 3 percent clay; structureless single grain; loose, nonsticky, nonplastic; fine roots; 10 percent medium distinct irregular masses of oxidized iron with clear boundaries Throughout; 50 percent nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; neutral, pH 6.6, pH meter. Lab sample # 18N02914

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 1 2017  
**Describer:** Dennis Mulligan  
**NEON Plot ID:** DEJU\_007  
**Site ID:** S2017AK240007

**Pedon ID:** S2017AK240007

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0703

**Soil Name as Described/Sampled:** Southpaw

**Classification:** Coarse-loamy Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** to cm.  
ochric epipedon 0 to 11 cm.  
cambic horizon 11 to 18 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8665782

**Std Longitude:** -145.7269145

**Latitude:** 63 degrees 51 minutes 59.50 seconds  
north

**Longitude:** 145 degrees 43 minutes 37.42  
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: S2017AK240007

Pedon ID: S2017AK240007

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	1,537.0									

Oe--0 to 7 centimeters (0.0 to 2.8 inches); moderately decomposed plant material; abrupt smooth boundary.

A--7 to 11 centimeters (2.8 to 4.3 inches); silt loam; 40 percent sand; 55 percent silt; 5 percent clay; moderate medium granular structure; very friable, nonsticky, nonplastic; clear smooth boundary. Lab sample # 18N02915

Bw--11 to 18 centimeters (4.3 to 7.1 inches); silt loam; 40 percent sand; 52 percent silt; 8 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; clear wavy boundary. Lab sample # 18N02916

BC1--18 to 43 centimeters (7.1 to 16.9 inches); very fine sandy loam; 55 percent sand; 38 percent silt; 7 percent clay; strong thick platy structure; friable, nonsticky, nonplastic; diffuse wavy boundary. Lab sample # 18N02917

BC2--43 to 75 centimeters (16.9 to 29.5 inches); silt loam; 30 percent sand; 63 percent silt; 7 percent clay; moderate thick platy structure; friable, nonsticky, nonplastic; clear wavy boundary. Lab sample # 18N02918

2C--75 to 100 centimeters (29.5 to 39.4 inches); gravelly sandy loam; 70 percent sand; 26 percent silt; 4 percent clay; structureless massive; very friable, nonsticky, nonplastic; . Lab sample # 18N02919

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 1 2017  
**Describer:** Matti kuykendall  
**NEON Plot ID:** DEJU\_008  
**Site ID:** S2017AK240008

**Pedon ID:** S2017AK240008

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0704

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal Typic Haplocrypts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:** 30 to 105 cm.

**Description origin:** NASIS

**Diagnostic Features:** ochric epipedon 0 to 22 cm.  
lithologic discontinuity 22 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8972982

**Std Longitude:** -145.7615913

**Latitude:** 63 degrees 53 minutes 49.94 seconds  
north

**Longitude:** 145 degrees 45 minutes 41.17  
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: S2017AK240008

Pedon ID: S2017AK240008

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
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Oa--0 to 5 centimeters (0.0 to 2.0 inches); black (10YR 2/1) rubbed highly decomposed plant material; very fine roots and medium roots; moderately acid, pH 5.7, pH meter; clear smooth boundary.

A1--5 to 12 centimeters (2.0 to 4.7 inches); dark brown (7.5YR 3/2) broken face silt loam; 20 percent sand; 11 percent clay; weak fine granular structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots; 5 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; moderately acid, pH 5.9; clear smooth boundary. Lab sample # 18N02920

A2--12 to 22 centimeters (4.7 to 8.7 inches); 95 percent olive brown (2.5Y 4/3) broken face and 5 percent gray (5Y 5/1) broken face silt loam; 18 percent sand; 9 percent clay; moderate medium granular structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots; 5 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.2; clear irregular boundary. Lab sample # 18N02921

2BC--22 to 62 centimeters (8.7 to 24.4 inches); grayish brown (2.5Y 5/2) broken face very cobbly loamy sand; 85 percent sand; 4 percent clay; weak fine granular structure; very friable, nonsticky, nonplastic; medium roots and fine roots; nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; neutral, pH 6.6; clear smooth boundary. Lab sample # 18N02922

2C--62 to 100 centimeters (24.4 to 39.4 inches); olive brown (2.5Y 4/3) broken face very gravelly coarse sand; 95 percent sand; 2 percent clay; structureless single grain; loose, nonsticky, nonplastic; very fine roots; nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; neutral, pH 6.8. Lab sample # 18N02923



**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 2 2017  
**Describer:** Andy Oxford  
**NEON Plot ID:** DEJU\_010  
**Site ID:** S2017AK240010

**Pedon ID:** S2017AK240010

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0705

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal Typic Haplocrypts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** cambic horizon 6 to 21 cm.  
lithologic discontinuity 31 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.9373468

**Std Longitude:** -145.7518785

**Latitude:** 63 degrees 56 minutes 14.23 seconds  
north

**Longitude:** 145 degrees 45 minutes 6.68 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: S2017AK240010

Pedon ID: S2017AK240010

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.0	1,480.0									

Oe--0 to 6 centimeters (0.0 to 2.4 inches); black (10YR 2/1) rubbed moderately decomposed plant material; many very fine roots and common medium roots and many fine roots and common coarse roots; moderately acid, pH 6.0, pH meter; clear smooth boundary.

Bw--6 to 21 centimeters (2.4 to 8.3 inches); 60 percent dark brown (7.5YR 3/3) broken face and 40 percent brown (7.5YR 4/4) broken face silt loam; 25 percent sand; 8 percent clay; moderate thick platy structure; friable, nonsticky, nonplastic; many very fine roots and common medium roots and many fine roots and common coarse roots; 5 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.5, pH meter; clear wavy boundary. Lab sample # 18N02924

BC--21 to 31 centimeters (8.3 to 12.2 inches); dark yellowish brown (10YR 4/4) broken face cobbly silt loam; 25 percent sand; 8 percent clay; weak thin platy structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots and common coarse roots; 10 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments and 15 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments; neutral, pH 6.7, pH meter; clear wavy boundary. Lab sample # 18N02925

2C--31 to 100 centimeters (12.2 to 39.4 inches); 20 percent dark yellowish brown (10YR 3/4) broken face very cobbly coarse sand; 95 percent sand; 2 percent clay; structureless single grain; loose, nonsticky, nonplastic; common very fine roots and common fine roots; nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments; neutral, pH 7.1, pH meter. Lab sample # 18N02926

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Jul 31 2017  
**Describer:** Dennis Mulligan  
**NEON Plot ID:** DEJU\_011  
**Site ID:** S2017AK240011

**Pedon ID:** S2017AK240011

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0706

**Soil Name as Described/Sampled:** Butchlake

**Classification:** Loamy-skeletal, mixed, superactive Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:** 30 to 105 cm.

**Description origin:** NASIS

**Diagnostic Features:** ochric epipedon 0 to 9 cm.  
9 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8808061

**Std Longitude:** -145.7238403

**Latitude:** 63 degrees 52 minutes 50.66 seconds  
north

**Longitude:** 145 degrees 43 minutes 25.88  
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: S2017AK240011

Pedon ID: S2017AK240011

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	1,740.0									

Oe--0 to 5 centimeters (0.0 to 2.0 inches); black (10YR 2/1) rubbed moderately decomposed plant material; common very fine roots and common medium roots and many fine roots and common coarse roots; slightly acid, pH 6.4; clear smooth boundary.

A/E--5 to 9 centimeters (2.0 to 3.5 inches); 65 percent black (10YR 2/1) broken face and 30 percent very dark grayish brown (10YR 3/2) broken face silt loam; 20 percent sand; 5 percent clay; weak fine subangular blocky structure; friable, nonsticky, nonplastic; common very fine roots and many medium roots and common fine roots and common coarse roots; slightly acid, pH 6.5; abrupt smooth boundary. Lab sample # 18N02927

2BC--9 to 28 centimeters (3.5 to 11.0 inches); olive brown (2.5Y 4/4) broken face very gravelly sandy loam; 55 percent sand; 5 percent clay; weak coarse subangular blocky structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots; 45 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; neutral, pH 7.0; gradual smooth boundary. Lab sample # 18N02928

2C--28 to 100 centimeters (11.0 to 39.4 inches); light olive brown (2.5Y 5/4) broken face very gravelly sandy loam; 55 percent sand; 5 percent clay; friable, nonsticky, nonplastic; common very fine roots and common fine roots; 35 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; neutral, pH 7.1. Lab sample # 18N02929

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 2 2017  
**Describer:** Matti Kuykendall  
**NEON Plot ID:** DEJU\_012  
**Site ID:** S2017AK240012

**Pedon ID:** S2017AK240012

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0707

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** ochric epipedon 0 to 16 cm.  
cambic horizon 16 to 45 cm.  
lithologic discontinuity 45 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.9209441

**Std Longitude:** -145.7880811

**Latitude:** 63 degrees 55 minutes 15.22 seconds  
north

**Longitude:** 145 degrees 47 minutes 16.88  
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: S2017AK240012

Pedon ID: S2017AK240012

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
2.0	1,293.0	82								

Oa--0 to 9 centimeters (0.0 to 3.5 inches); black (10YR 2/1) rubbed moderately decomposed plant material; very fine roots and medium roots and fine roots; moderately acid, pH 6.0, pH meter; clear smooth boundary.

A/B--9 to 16 centimeters (3.5 to 6.3 inches); 70 percent brown (7.5YR 4/3) broken face and 30 percent brown (7.5YR 4/4) broken face silt loam; 20 percent sand; 8 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; very fine roots and fine roots; 5 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments; slightly acid, pH 6.1, pH meter; gradual irregular boundary. Lab sample # 18N02930

Bw--16 to 45 centimeters (6.3 to 17.7 inches); brown (7.5YR 4/4) broken face sandy loam; 55 percent sand; 5 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots; 5 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments; slightly acid, pH 6.1, pH meter; clear smooth boundary. Lab sample # 18N02931

2BC--45 to 62 centimeters (17.7 to 24.4 inches); yellowish brown (10YR 5/4) broken face very gravelly loamy sand; 85 percent sand; 5 percent clay; weak fine subangular blocky structure; friable, nonsticky, nonplastic; very fine roots; nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.2, pH meter; clear wavy boundary. Lab sample # 18N02932

2C--62 to 100 centimeters (24.4 to 39.4 inches); brown (10YR 4/3) broken face very cobbly coarse sand; 95 percent sand; 2 percent clay; structureless single grain; friable, nonsticky, nonplastic; fine roots; nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.3, pH meter. Lab sample # 18N02933

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 1 2017  
**Describer:** Andy Oxford  
**NEON Plot ID:** DEJU\_013  
**Site ID:** S2017AK240013

**Pedon ID:** S2017AK240013

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0708

**Soil Name as Described/Sampled:** Nenana

**Classification:** Coarse-silty over sandy or sandy-skeletal Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** cambic horizon 10 to 33 cm.  
lithologic discontinuity 77 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8397896

**Std Longitude:** -145.7427939

**Latitude:** 63 degrees 50 minutes 22.99 seconds north

**Longitude:** 145 degrees 44 minutes 33.73 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

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
12.0	1,820.0	8								

Oe--0 to 7 centimeters (0.0 to 2.8 inches); very dark brown (7.5YR 2/2) rubbed moderately decomposed plant material; many very fine roots and common medium roots and many fine roots and common coarse roots; very strongly acid, pH 4.8, pH meter; clear smooth boundary.

Oa--7 to 10 centimeters (2.8 to 3.9 inches); black (10YR 2/1) rubbed highly decomposed plant material; common very fine roots and common fine roots; very strongly acid, pH 4.9; abrupt smooth boundary.

Bw1--10 to 23 centimeters (3.9 to 9.1 inches); dark yellowish brown (10YR 4/4) broken face silt loam; 35 percent sand; 10 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots and common coarse roots; 2 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments and 3 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments; slightly acid, pH 6.4, pH meter; clear smooth boundary. Lab sample # 18N02934

Bw2--23 to 33 centimeters (9.1 to 13.0 inches); olive brown (2.5Y 4/4) broken face loam; 35 percent sand; 10 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots; 3 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments; neutral, pH 6.6, pH meter; clear wavy boundary. Lab sample # 18N02935

BC--33 to 59 centimeters (13.0 to 23.2 inches); olive brown (2.5Y 4/4) broken face loam; 50 percent sand; 10 percent clay; weak thin platy structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots; 3 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments; slightly acid, pH 6.5, pH meter; clear wavy boundary. Lab sample # 18N02936

2BA--59 to 77 centimeters (23.2 to 30.3 inches); yellowish brown (10YR 5/6) broken face silt loam; 25 percent sand; 20 percent clay; weak medium subangular blocky structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots; 3 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments; neutral, pH 7.0, pH meter; abrupt wavy boundary. Lab sample # 18N02937

3C--77 to 100 centimeters (30.3 to 39.4 inches); brown (10YR 4/3) broken face very gravelly loamy sand; 80 percent sand; 5 percent clay; structureless single grain; loose, nonsticky, nonplastic; nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; neutral, pH 7.0. Lab sample # 18N02938



**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 1 2017  
**Describer:** Andy Oxford  
**NEON Plot ID:** DEJU\_014  
**Site ID:** S2017AK240014

**Pedon ID:** S2017AK240014

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0709

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** ochric epipedon 0 to 16 cm.  
cambic horizon 16 to 27 cm.  
lithologic discontinuity 40 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8309635

**Std Longitude:** -145.7480260

**Latitude:** 63 degrees 49 minutes 51.33 seconds  
north

**Longitude:** 145 degrees 44 minutes 53.13  
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: S2017AK240014

Pedon ID: S2017AK240014

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	1,804.0									

Oe--0 to 11 centimeters (0.0 to 4.3 inches); black (10YR 2/1) rubbed moderately decomposed plant material; common very fine roots and common medium roots and common fine roots; neutral, pH 6.9, pH meter; clear smooth boundary.

AE--11 to 16 centimeters (4.3 to 6.3 inches); dark gray (10YR 4/1) broken face silt loam; 20 percent sand; 5 percent clay; weak fine granular structure; very friable, nonsticky, nonplastic; many very fine roots and common medium roots and many fine roots and common coarse roots; moderately acid, pH 5.9, pH meter; clear wavy boundary. Lab sample # 18N02939

Bw--16 to 27 centimeters (6.3 to 10.6 inches); dark grayish brown (10YR 4/2) broken face silt loam; 20 percent sand; 20 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots and common coarse roots; slightly acid, pH 6.3, pH meter; clear wavy boundary. Lab sample # 18N02940

BC--27 to 40 centimeters (10.6 to 15.7 inches); dark grayish brown (2.5Y 4/2) broken face silty clay loam; 20 percent sand; 29 percent clay; moderate thin platy structure; friable, slightly sticky, slightly plastic; common very fine roots and common medium roots and common fine roots; 2 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments; slightly acid, pH 6.4, pH meter; clear wavy boundary. Lab sample # 18N02941

2C--40 to 100 centimeters (15.7 to 39.4 inches); brown (7.5YR 4/4) broken face very gravelly coarse sand; 95 percent sand; 2 percent clay; loose, nonsticky, nonplastic; common very fine roots and common fine roots; nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; neutral, pH 6.6, pH meter. Lab sample # 18N02942

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 2 2017  
**Describer:** Dennis Mulligan  
**NEON Plot ID:** DEJU\_016  
**Site ID:** S2017AK240016

**Pedon ID:** S2017AK240016

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0718

**Soil Name as Described/Sampled:** Southpaw

**Classification:** Coarse-loamy Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** ? to ? cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8576990

**Std Longitude:** -145.7602891

**Latitude:** 63 degrees 51 minutes 27.54 seconds north

**Longitude:** 145 degrees 45 minutes 37.09 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: S2017AK240016

Pedon ID: S2017AK240016

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
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Oi--0 to 6 centimeters (0.0 to 2.4 inches); dark reddish brown (5YR 2.5/2) rubbed slightly decomposed plant material; many very fine roots and common very coarse roots and many medium roots and many fine roots and many coarse roots; abrupt smooth boundary.

Oe--6 to 11 centimeters (2.4 to 4.3 inches); black (7.5YR 2.5/1) rubbed moderately decomposed plant material; many very fine roots and common medium roots and common fine roots and common coarse roots; abrupt smooth boundary.

BC1--11 to 33 centimeters (4.3 to 13.0 inches); olive brown (2.5Y 4/4) broken face gravelly sandy loam; 60 percent sand; 28 percent silt; 12 percent clay; weak thick platy structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots; 10 percent coarse faint irregular iron depletions with clear boundaries Throughout; 17 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments; diffuse smooth boundary. Lab sample # 18N02976

BC2--33 to 64 centimeters (13.0 to 25.2 inches); light olive brown (2.5Y 5/4) broken face gravelly sandy loam; 55 percent sand; 30 percent silt; 15 percent clay; weak thick platy structure; friable, nonsticky, nonplastic; 17 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments; diffuse smooth boundary. Lab sample # 18N02977

C--64 to 100 centimeters (25.2 to 39.4 inches); light olive brown (2.5Y 5/4) broken face gravelly loam; 60 percent sand; 25 percent silt; 15 percent clay; structureless massive; firm, slightly sticky, slightly plastic; 25 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 18N02978

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 2 2017  
**Describer:** Dennis Mulligan  
**NEON Plot ID:** DEJU\_017  
**Site ID:** S2017AK240017

**Pedon ID:** S2017AK240017

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0710

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** cambic horizon 7 to 17 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8832119

**Std Longitude:** -145.7811354

**Latitude:** 63 degrees 52 minutes 59.42 seconds north

**Longitude:** 145 degrees 46 minutes 52.47 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: S2017AK240017

Pedon ID: S2017AK240017

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
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Oe--0 to 7 centimeters (0.0 to 2.8 inches); black (7.5YR 2.5/1) rubbed moderately decomposed plant material; common very fine roots and common very coarse roots and common medium roots and many fine roots and common coarse roots; .

Bw--7 to 17 centimeters (2.8 to 6.7 inches); dark brown (7.5YR 3/3) broken face silt loam; moderate medium subangular blocky structure; common very fine roots and common very coarse roots and many medium roots and common fine roots and common coarse roots; 5 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 18N02943

BC--17 to 28 centimeters (6.7 to 11.0 inches); dark yellowish brown (10YR 4/6) broken face silt loam; moderate medium platy structure; common very fine roots and common medium roots and common fine roots; 10 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments. Lab sample # 18N02944

2C1--28 to 54 centimeters (11.0 to 21.3 inches); yellowish brown (10YR 5/6) broken face extremely cobbly loamy sand; structureless single grain; common very fine roots and common fine roots; nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments and nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments. Lab sample # 18N02945

2C2--54 to 100 centimeters (21.3 to 39.4 inches); extremely cobbly coarse sand; structureless single grain; nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments and nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments. Lab sample # 18N02946

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 1 2017  
**Describer:** Andy Oxford  
**NEON Plot ID:** DEJU\_018  
**Site ID:** S2017AK240018

**Pedon ID:** S2017AK240018

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0711

**Soil Name as Described/Sampled:** Butchlake

**Classification:** Loamy-skeletal, mixed, superactive Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:** 38 to 113 cm.

**Description origin:** NASIS

**Diagnostic Features:** to cm.  
ochric epipedon 0 to 23 cm.  
cambic horizon 23 to 48 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8377561

**Std Longitude:** -145.7556496

**Latitude:** 63 degrees 50 minutes 15.78 seconds north

**Longitude:** 145 degrees 45 minutes 19.73 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: S2017AK240018

Pedon ID: S2017AK240018

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	1,844.0									

Oe--0 to 8 centimeters (0.0 to 3.1 inches); black (7.5YR 2.5/1) rubbed moderately decomposed plant material; slightly acid, pH 6.5; clear smooth boundary.

Oa--8 to 13 centimeters (3.1 to 5.1 inches); black (10YR 2/1) rubbed highly decomposed plant material; slightly acid, pH 6.2; clear smooth boundary.

AE--13 to 23 centimeters (5.1 to 9.1 inches); dark gray (10YR 4/1) broken face cobbly silt loam; 30 percent sand; 8 percent clay; weak fine subangular blocky structure; friable, nonsticky, nonplastic; 5 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments and 10 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments and 10 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.2; abrupt wavy boundary. Lab sample # 18N02947

Bw--23 to 48 centimeters (9.1 to 18.9 inches); dark brown (7.5YR 3/4) broken face very stony sandy loam; 75 percent sand; 3 percent clay; weak medium subangular blocky structure; very friable, nonsticky, nonplastic; moderately acid, pH 5.7; clear wavy boundary. Lab sample # 18N02948

BC--48 to 67 centimeters (18.9 to 26.4 inches); light olive brown (2.5Y 5/3) broken face gravelly sandy loam; 55 percent sand; 8 percent clay; weak medium angular blocky structure; friable, nonsticky, nonplastic; slightly acid, pH 6.2; clear wavy boundary. Lab sample # 18N02949

2Ab--67 to 84 centimeters (26.4 to 33.1 inches); 65 percent very dark gray (10YR 3/1) broken face and 35 percent light olive brown (2.5Y 5/3) broken face silt loam; 30 percent sand; 5 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; moderately acid, pH 5.9; abrupt wavy boundary. Lab sample # 18N02950

2C--84 to 100 centimeters (33.1 to 39.4 inches); olive brown (2.5Y 4/4) broken face very gravelly sandy loam; 55 percent sand; 8 percent clay; structureless massive; friable, nonsticky, nonplastic; moderately acid, pH 5.9. Lab sample # 18N02951



**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 1 2017  
**Describer:** Dennis Mulligan  
**NEON Plot ID:** DEJU\_022  
**Site ID:** S2017AK240022

**Pedon ID:** S2017AK240022

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0712

**Soil Name as Described/Sampled:** TERRIC HEMISTELS

**Classification:** Loamy Terric Hemistels

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** taxon above family

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** hemic soil materials 0 to 24 cm.  
sapric soil materials 24 to 48 cm.  
cryoturbation 48 to 63 cm.  
permafrost 63 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8740747

**Std Longitude:** -145.7223021

**Latitude:** 63 degrees 52 minutes 26.42 seconds  
north

**Longitude:** 145 degrees 43 minutes 20.12  
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: S2017AK240022

Pedon ID: S2017AK240022

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
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Oe1--0 to 17 centimeters (0.0 to 6.7 inches); very dark brown (10YR 2/2) rubbed mucky peat; gradual smooth boundary. Lab sample # 18N02952

Oe2--17 to 24 centimeters (6.7 to 9.4 inches); very dark gray (7.5YR 3/1) rubbed mucky peat; diffuse smooth boundary. Lab sample # 18N02953

Oa--24 to 48 centimeters (9.4 to 18.9 inches); black (10YR 2/1) rubbed muck; clear smooth boundary. Lab sample # 18N02954

C/Ajg--48 to 63 centimeters (18.9 to 24.8 inches); 70 percent very dark brown (10YR 2/2) broken face and 30 percent very dark gray (2.5Y 3/1) broken face highly organic silt loam, silt loam; 20 percent sand; 74 percent silt; 6 percent clay; weak medium subangular blocky structure; friable, nonsticky, nonplastic; 7 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments; abrupt smooth boundary. Lab sample # 18N02955

Cfg--63 to 100 centimeters (24.8 to 39.4 inches); very dark gray (2.5Y 3/1) broken face silt loam; 20 percent sand; 75 percent silt; 5 percent clay; rigid, nonsticky, nonplastic; . Lab sample # 18N02956

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 2 2017  
**Describer:** Andy Oxford  
**NEON Plot ID:** DEJU\_023  
**Site ID:** S2017AK240023

**Pedon ID:** S2017AK240023

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0713

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal, mixed Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** cambic horizon 4 to 21 cm.  
lithologic discontinuity 26 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.9344675

**Std Longitude:** -145.7618044

**Latitude:** 63 degrees 56 minutes 3.90 seconds  
north

**Longitude:** 145 degrees 42 minutes 42.10  
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: S2017AK240023

Pedon ID: S2017AK240023

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
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Oe--0 to 4 centimeters (0.0 to 1.6 inches); black (10YR 2/1) rubbed moderately decomposed plant material; very fine roots and medium roots and fine roots; neutral, pH 7.3; clear smooth boundary.

Bw--4 to 21 centimeters (1.6 to 8.3 inches); dark brown (7.5YR 3/3) broken face cobbly silt loam; 25 percent sand; 8 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots and coarse roots; 30 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.5; clear wavy boundary. Lab sample # 18N02957

BC--21 to 26 centimeters (8.3 to 10.2 inches); dark yellowish brown (10YR 4/4) broken face cobbly silt loam; 25 percent sand; 8 percent clay; weak thin platy structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots; 5 percent nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments and 10 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.3; clear irregular boundary. Lab sample # 18N02958

2C--26 to 100 centimeters (10.2 to 39.4 inches); very cobbly coarse sand; 95 percent sand; 2 percent clay; structureless single grain; friable, nonsticky, nonplastic; fine roots; nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; neutral, pH 6.9. Lab sample # 18N02959

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 2 2017  
**Describer:** Andy Oxford  
**NEON Plot ID:** DEJU\_024  
**Site ID:** S2017AK240024

**Pedon ID:** S2017AK240024

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0714

**Soil Name as Described/Sampled:** Southpaw

**Classification:** Coarse-loamy, mixed, superactive Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** ochric epipedon 0 to 12 cm.  
cambic horizon 12 to 31 cm.  
lithologic discontinuity 68 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8869191

**Std Longitude:** -145.7748850

**Latitude:** 63 degrees 53 minutes 12.61 seconds  
north

**Longitude:** 145 degrees 46 minutes 29.37  
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

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
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Oe--0 to 8 centimeters (0.0 to 3.1 inches); gray (10YR 6/1) reduced moderately decomposed plant material; very fine roots and medium roots and fine roots and coarse roots; neutral, pH 6.8; clear wavy boundary.

A--8 to 12 centimeters (3.1 to 4.7 inches); black (10YR 2/1) broken face silt loam; 25 percent sand; 5 percent clay; weak fine granular structure; very friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots and coarse roots; neutral, pH 6.8; abrupt wavy boundary. Lab sample # 18N02960

Bw1--12 to 21 centimeters (4.7 to 8.3 inches); dark brown (7.5YR 3/3) broken face silt loam; 30 percent sand; 8 percent clay; weak medium subangular blocky structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots; 2 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments and 3 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.2; clear irregular boundary. Lab sample # 18N02961

Bw2--21 to 31 centimeters (8.3 to 12.2 inches); dark grayish brown (10YR 4/2) broken face very cobbly silt loam; 30 percent sand; 8 percent clay; weak fine subangular blocky structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots; 5 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments and 15 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments and 45 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.2; clear irregular boundary. Lab sample # 18N02962

C1--31 to 68 centimeters (12.2 to 26.8 inches); 50 percent dark grayish brown (2.5Y 4/2) broken face and 20 percent olive gray (5Y 5/2) broken face silt loam; 25 percent sand; 10 percent clay; structureless massive; friable, nonsticky, nonplastic; very fine roots and fine roots; 30 percent medium prominent irregular 10YR 5/6), moist, masses of oxidized iron with clear boundaries Throughout; 2 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments and 3 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; slightly acid, pH 6.1; clear wavy boundary. Lab sample # 18N02963

2C2--68 to 100 centimeters (26.8 to 39.4 inches); olive gray (5Y 5/2) broken face very cobbly sandy loam; 60 percent sand; 10 percent clay; structureless massive; very friable, nonsticky, nonplastic; 15 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments and 15 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments and 15 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; neutral, pH 6.7. Lab sample # 18N02964

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Aug 1 2017  
**Describer:** Matti Kuykendall  
**NEON Plot ID:** DEJU\_025  
**Site ID:** S2017AK240025

**Pedon ID:** S2017AK240025

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0715

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal, mixed Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** ochric epipedon 0 to 22 cm.  
lithologic discontinuity 22 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8943057

**Std Longitude:** -145.7568061

**Latitude:** 63 degrees 53 minutes 39.33 seconds  
north

**Longitude:** 145 degrees 45 minutes 23.76  
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: S2017AK240025

Pedon ID: S2017AK240025

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
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Oi--0 to 10 centimeters (0.0 to 3.9 inches); very dark brown (7.5YR 2.5/2) rubbed slightly decomposed plant material; very fine roots and fine roots; neutral, pH 6.9; clear irregular boundary.

Oa--10 to 14 centimeters (3.9 to 5.5 inches); gray (10YR 5/1) rubbed highly decomposed plant material; very fine roots and medium roots and fine roots and coarse roots; slightly acid, pH 6.5; clear wavy boundary.

A/B--14 to 22 centimeters (5.5 to 8.7 inches); 60 percent brown (7.5YR 4/2) broken face and 40 percent dark reddish brown (5YR 3/4) broken face silt loam; 25 percent sand; 9 percent clay; moderate medium subangular blocky parts to moderate medium granular structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots; 5 percent nonflat well rounded indurated 2 to 5-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 5 to 75-millimeter Mixed rock fragments; slightly acid, pH 6.3; clear irregular boundary. Lab sample # 18N02965

2BC--22 to 70 centimeters (8.7 to 27.6 inches); light olive brown (2.5Y 5/3) broken face very gravelly loamy sand; 80 percent sand; 3 percent clay; weak fine granular structure; very friable, nonsticky, nonplastic; very fine roots and fine roots and coarse roots; nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; neutral, pH 7.0; clear smooth boundary. Lab sample # 18N02966

2C--70 to 100 centimeters (27.6 to 39.4 inches); olive brown (2.5Y 4/4) broken face very gravelly sand; 90 percent sand; 2 percent clay; structureless single grain; loose, nonsticky, nonplastic; very fine roots; nonflat well rounded indurated 2 to 75-millimeter Mixed rock fragments and nonflat well rounded indurated 75 to 250-millimeter Mixed rock fragments; neutral, pH 7.1. Lab sample # 18N02967



**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Jul 31 2017  
**Describer:** Dennis Mulligan  
**NEON Plot ID:** DEJU\_027  
**Site ID:** S2017AK240027

**Pedon ID:** S2017AK240027

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0716

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** to cm.

ochric epipedon 0 to 15 cm.  
cambic horizon 15 to 37 cm.  
lithologic discontinuity 37 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8961071

**Std Longitude:** -145.7787351

**Latitude:** 63 degrees 53 minutes 45.91 seconds  
north

**Longitude:** 145 degrees 46 minutes 42.98  
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: S2017AK240027

Pedon ID: S2017AK240027

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
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Oe--0 to 6 centimeters (0.0 to 2.4 inches); moderately decomposed plant material; very fine roots and medium roots and fine roots; slightly acid, pH 6.3; abrupt smooth boundary.

Oa--6 to 13 centimeters (2.4 to 5.1 inches); highly decomposed plant material; very fine roots and medium roots and fine roots; neutral, pH 7.3; clear smooth boundary.

A--13 to 15 centimeters (5.1 to 5.9 inches); silt loam; 20 percent sand; 5 percent clay; weak fine granular structure; friable, nonsticky, nonplastic; very fine roots and fine roots; strongly acid, pH 5.5; clear broken boundary. Lab sample # 18N02968

Bw--15 to 37 centimeters (5.9 to 14.6 inches); loam; 50 percent sand; 8 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots and coarse roots; moderately acid, pH 6.0; clear wavy boundary. Lab sample # 18N02969

2BC--37 to 63 centimeters (14.6 to 24.8 inches); extremely stony loamy sand; 85 percent sand; 2 percent clay; structureless massive; friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots; nonflat well rounded indurated 2 to 600-millimeter Mixed rock fragments; neutral, pH 6.9; gradual wavy boundary. Lab sample # 18N02970

2C--63 to 100 centimeters (24.8 to 39.4 inches); extremely cobbly coarse sand; 95 percent sand; 2 percent clay; structureless single grain; friable, nonsticky, nonplastic; nonflat well rounded indurated 2 to 600-millimeter Mixed rock fragments; neutral, pH 7.1. Lab sample # 18N02971

**PEDON DESCRIPTION -- NEON Site DEJU**

**Print Date:** Apr 26 2018  
**Description Date:** Jul 31 2017  
**Describer:** Dennis Mulligan  
**NEON Plot ID:** DEJU\_045  
**Site ID:** S2017AK240045

**Pedon ID:** S2017AK240045

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N0717

**Soil Name as Described/Sampled:** Donnelly

**Classification:** Sandy or sandy-skeletal Typic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** research site

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** outwash plain

**Upslope Shape:**

**Cross Slope Shape:**

**Particle Size Control Section:**

**Description origin:** NASIS

**Diagnostic Features:** ochric epipedon 0 to 8 cm.  
cambic horizon 8 to 25 cm.  
lithologic discontinuity 25 to 100 cm.

**Country:** United States

**State:** Alaska

**County:** Southeast Fairbanks Census Area

**MLRA:** 228 -- Interior Alaska Mountains

**Soil Survey Area:** AK683 -- Fort Greely and  
Donnelly Training Area, Alaska

AK228 -- Interior Alaska Mountains

1-FAI -- Fairbanks, Alaska

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 63.8807128

**Std Longitude:** -145.7433922

**Latitude:** 63 degrees 52 minutes 50.25 seconds  
north

**Longitude:** 145 degrees 44 minutes 35.85  
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: S2017AK240045

Pedon ID: S2017AK240045

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
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Oe--0 to 5 centimeters (0.0 to 2.0 inches); black (7.5YR 2.5/1) rubbed moderately decomposed plant material; common very fine roots and common medium roots and many fine roots; strongly acid, pH 5.1; abrupt smooth boundary.

A/E--5 to 8 centimeters (2.0 to 3.1 inches); 70 percent dark brown (7.5YR 3/2) broken face and 30 percent dark grayish brown (10YR 4/2) broken face silt loam; 18 percent sand; 5 percent clay; weak coarse granular structure; friable, nonsticky, nonplastic; many very fine roots and many medium roots and many fine roots and common coarse roots; strongly acid, pH 5.4; abrupt wavy boundary. Lab sample # 18N02972

Bw--8 to 25 centimeters (3.1 to 9.8 inches); 70 percent strong brown (7.5YR 4/6) broken face and 30 percent dark yellowish brown (10YR 4/4) broken face silt loam; 18 percent sand; 5 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots; neutral, pH 6.7; clear wavy boundary. Lab sample # 18N02973

2BC--25 to 70 centimeters (9.8 to 27.6 inches); dark yellowish brown (10YR 4/6) broken face very cobbly loamy sand; 81 percent sand; 4 percent clay; structureless single grain; very friable, nonsticky, nonplastic; common medium roots and common fine roots; nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments; neutral, pH 6.9; diffuse wavy boundary. Lab sample # 18N02974

2C--70 to 100 centimeters (27.6 to 39.4 inches); dark yellowish brown (10YR 4/6) broken face very cobbly loamy sand; 85 percent sand; 2 percent clay; structureless single grain; loose, nonsticky, nonplastic; nonflat well rounded indurated 2 to 250-millimeter Mixed rock fragments. Lab sample # 18N02975