

**PEDON DESCRIPTION -- NEON Site**

**Print Date:** Apr 5 2019  
**Description Date:** Jul 10 2018  
**Describer:** Daniel Wood, Philip Goodin  
**NEON Plot ID:** YELL\_001  
**Site ID:** S2018WY029001

**Pedon ID:** S2018WY029001

**Site Note:**

**Pedon Note:**

**Lab Source ID:**

**Lab Pedon #:**

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

**Classification:** Fine-loamy, mixed, superactive, frigid Pachic Argiustolls

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:** confirmation description

**Pedon Purpose:** laboratory sampling site

**Taxon Kind:** family

**Associated Soils:**

**Physiographic Division:** Rocky Mountain System

**Physiographic Province:** Middle Rocky Mountains

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** on footslope of mountainbase of mountains  
on footslope of mountainbase of hillslope

**Upslope Shape:** concave

**Cross Slope Shape:** linear

**Particle Size Control Section:** 4 to 29 cm.

**Description origin:** Spreadsheet

**Diagnostic Features:** mollic epipedon 0 to 98 cm.  
argillic horizon 4 to 29 cm.  
argillic horizon 45 to 200 cm.  
secondary carbonates 67 to 200 cm.

**Country:**

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National  
Park, Wyoming-Montana-Idaho  
4-POW -- Powell, Wyoming

**Map Unit:**

**Pit Location:**

**Quad Name:** Blacktail Deer Creek, Wyoming

**Std Latitude:** 44.9559710

**Std Longitude:** -110.5419840

**Latitude:** 44 degrees 57 minutes 21.50 seconds  
north

**Longitude:** 110 degrees 32 minutes 31.14  
seconds west

**Datum:** NAD83

**UTM Zone:** 12

**UTM Easting:** 536126 meters

**UTM Northing:** 4978161 meters

**Primary Earth Cover:** Grass/herbaceous cover

**Secondary Earth Cover:**

**Existing Vegetation:**

**Parent Material:**

**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**

**Bedrock Fracture Interval:**

**Surface Fragments:**

**Description database:** MLRA04\_Bozeman

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
9.0	2,036.0	343	6.0			432	100	well		

A--0 to 4 centimeters (0.0 to 1.6 inches); brown (7.5YR 4/2) broken face loam, black (7.5YR 2.5/1) broken face, moist; 20 percent clay; moderate medium granular structure; soft, friable, slightly sticky, slightly plastic; very fine roots throughout and fine roots throughout; 2 percent nonflat subangular indurated 2 to 5-millimeter Mixed rock fragments; noneffervescent, by HCl, 1 normal; neutral, pH 7.2, pH indicator solutions; clear smooth boundary.

Bt1--4 to 29 centimeters (1.6 to 11.4 inches); brown (7.5YR 4/2) broken face loam, black (7.5YR 2.5/1) broken face, moist; 24 percent clay; moderate medium subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; very fine roots throughout and fine roots throughout; very fine low-continuity dendritic tubular and fine low-continuity dendritic tubular pores; 15 percent distinct clay films on all faces of peds; 4 percent nonflat subangular indurated 2 to 5-millimeter Mixed rock fragments and 4 percent nonflat subangular indurated 2 to 20-millimeter Mixed rock fragments; noneffervescent, by HCl, 1 normal; neutral, pH 6.8, pH indicator solutions; gradual wavy boundary.

Bw--29 to 45 centimeters (11.4 to 17.7 inches); brown (7.5YR 4/2) broken face loam, black (7.5YR 2.5/1) broken face, moist; 24 percent clay; weak medium granular structure; soft, very friable, moderately sticky, moderately plastic; very fine roots throughout and fine roots throughout; very fine low-continuity dendritic tubular pores; 3 percent nonflat subangular indurated 2 to 20-millimeter Mixed rock fragments and 4 percent nonflat subangular indurated 2 to 5-millimeter Mixed rock fragments; noneffervescent, by HCl, 1 normal; neutral, pH 6.8, pH indicator solutions; gradual smooth boundary.

Bt2--45 to 67 centimeters (17.7 to 26.4 inches); brown (7.5YR 4/2) broken face gravelly loam, black (7.5YR 2.5/1) broken face, moist; 26 percent clay; moderate medium subangular blocky structure; soft, friable, moderately sticky, moderately plastic; very fine roots throughout and fine roots throughout; very fine moderate-continuity dendritic tubular and fine low-continuity dendritic tubular pores; 25 percent distinct clay films on all faces of peds; 5 percent nonflat subangular indurated 2 to 20-millimeter Mixed rock fragments and 10 percent nonflat subangular indurated 2 to 5-millimeter Mixed rock fragments; noneffervescent, by HCl, 1 normal; neutral, pH 7.0, pH indicator solutions; gradual wavy boundary.

Btk1--67 to 98 centimeters (26.4 to 38.6 inches); brown (7.5YR 5/2) broken face gravelly clay loam, dark brown (7.5YR 3/2) broken face, moist; 28 percent clay; moderate medium subangular blocky structure; moderately hard, friable, moderately sticky, moderately plastic; very fine roots throughout and medium roots throughout and fine roots throughout; very fine moderate-continuity dendritic tubular pores; 10 percent faint carbonate coats on rock fragments and 35 percent distinct clay films on all faces of peds; 2 percent medium distinct cylindrical indurated cemented carbonate nodules with clear boundaries in matrix; 5 percent nonflat subangular indurated 5 to 20-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments and 8 percent nonflat subrounded indurated 76 to 250-millimeter Mixed rock fragments and 8 percent nonflat subangular indurated 20 to 76-millimeter Mixed rock fragments and 8 percent nonflat subangular indurated 2 to 5-millimeter Mixed rock fragments; noneffervescent, by HCl, 1 normal; neutral, pH 7.2, pH indicator solutions; gradual wavy boundary.

Btk2--98 to 126 centimeters (38.6 to 49.6 inches); light brown (7.5YR 6/3) broken face gravelly clay loam, brown (7.5YR 5/3) broken face, moist; 28 percent clay; moderate medium subangular blocky structure; moderately hard, friable, moderately sticky, moderately plastic; very fine roots throughout and fine roots throughout; very fine low-continuity tubular pores; 15 percent distinct carbonate coats on rock fragments and 40 percent distinct clay films on all faces of peds; 3 percent medium distinct irregular weakly cemented carbonate masses with diffuse boundaries in matrix; 2 percent nonflat subrounded indurated 76 to 250-millimeter Mixed rock fragments and 2 percent nonflat subrounded indurated 250 to 600-millimeter Mixed rock fragments and 3 percent nonflat subangular indurated 20 to 76-millimeter Mixed rock fragments and 4 percent nonflat subangular indurated 2 to 5-millimeter Mixed rock fragments and 5 percent nonflat subangular indurated 5 to 20-millimeter Mixed rock fragments; very slight effervescence, by HCl, 1 normal; slightly alkaline, pH 7.6, pH indicator solutions; gradual wavy boundary.

**Cont. Site ID:** S2018WY029001

**Pedon ID:** S2018WY029001

Btk3--126 to 161 centimeters (49.6 to 63.4 inches); light gray (10YR 7/2) broken face clay loam, brown (10YR 5/3) broken face, moist; 30 percent clay; moderate medium platy parts to moderate medium subangular blocky structure; moderately hard, friable, moderately sticky, moderately plastic; fine low-continuity tubular pores; 35 percent distinct clay films on all faces of peds and 40 percent distinct carbonate coats on bottom of rock fragments; 35 percent medium prominent threadlike weakly cemented carbonate masses with clear boundaries in matrix; 3 percent nonflat subangular indurated 5 to 20-millimeter Mixed rock fragments and 3 percent nonflat subangular indurated 20 to 76-millimeter Mixed rock fragments and 5 percent nonflat subangular indurated 2 to 5-millimeter Mixed rock fragments; strong effervescence, by HCl, 1 normal; moderately alkaline, pH 8.2, pH indicator solutions; diffuse wavy boundary.

Btk4--161 to 200 centimeters (63.4 to 78.7 inches); pale brown (10YR 6/3) broken face clay loam, brown (10YR 4/3) broken face, moist; 30 percent clay; strong medium platy structure; hard, firm, moderately sticky, moderately plastic; fine low-continuity tubular pores; 40 percent distinct carbonate coats on bottom of rock fragments and 65 percent prominent clay films on all faces of peds; 15 percent medium prominent threadlike weakly cemented carbonate masses with clear boundaries in matrix; 3 percent nonflat subangular indurated 5 to 20-millimeter Mixed rock fragments and 3 percent nonflat subangular indurated 20 to 76-millimeter Mixed rock fragments and 5 percent nonflat subangular indurated 2 to 5-millimeter Mixed rock fragments; strong effervescence, by HCl, 1 normal; moderately alkaline, pH 8.4, pH indicator solutions.

**PEDON DESCRIPTION -- NEON Site YELL**

**Print Date:** Apr 5 2019  
**Description Date:** Aug 11 2018  
**Describer:** Chris Fabian  
**NEON Plot ID:** YELL\_004  
**Site ID:** S2018WY029004

**Pedon ID:** S2018WY029004

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N2842

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

**Classification:** Loamy-skeletal, mixed, superactive Pachic Argicryolls

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** soil survey inventory

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** lf ground moraine  
ls mountains

**Upslope Shape:** concave

**Cross Slope Shape:** concave

**Particle Size Control Section:**

**Description origin:** Pedon PC 6.3

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

**Country:** United States

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National  
Park, Wyoming-Montana-Idaho

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 44.9627200

**Std Longitude:** -110.5931200

**Latitude:** 44 degrees 57 minutes 45.80 seconds  
north

**Longitude:** 110 degrees 35 minutes 35.23  
seconds west

**Datum:** WGS84

**UTM Zone:** 12

**UTM Easting:** 532089 meters

**UTM Northing:** 4978890 meters

**Primary Earth Cover:** Grass/herbaceous cover

**Secondary Earth Cover:** Other grass/herbaceous  
cover

**Existing Vegetation:** beardtongue, bluebunch  
wheatgrass, buckwheat, cinquefoil, Columbia  
needlegrass, fragrant bedstraw, goldenrod, Idaho  
fescue, mountain big sagebrush, phlox, pussytoes,  
sticky purple geranium, Wyoming big sagebrush

**Parent Material:** subglacial till derived from rhyolite

**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**

**Bedrock Fracture Interval:**

**Surface Fragments:** and 0.0 percent nonflat  
indurated 250- to 600-millimeter

**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)
21.0	1,996.0	37						well		

A1--0 to 7 centimeters (0.0 to 2.8 inches); black (10YR 2/1) gravelly loam, very dark grayish brown (10YR 3/2), dry; 34 percent sand; 17 percent clay; moderate fine granular structure; fine roots and coarse roots; 1 percent nonflat indurated 75 to 250-millimeter Volcanic rock fragments and 2 percent nonflat indurated 20 to 75-millimeter Volcanic rock fragments and 20 percent nonflat indurated 2 to 20-millimeter Volcanic rock fragments; noneffervescent; moderately acid, pH 6.0; clear smooth boundary. Lab sample # 18N06666

A2--7 to 28 centimeters (2.8 to 11.0 inches); very dark brown (10YR 2/2) very gravelly loam, dark grayish brown (10YR 4/2), dry; 35 percent sand; 22 percent clay; moderate medium subangular blocky structure; very fine roots and medium roots and fine roots and coarse roots; common very fine dendritic tubular pores; 10 percent nonflat indurated 75 to 250-millimeter Volcanic rock fragments and 15 percent nonflat indurated 20 to 75-millimeter Volcanic rock fragments and 25 percent nonflat indurated 2 to 20-millimeter Volcanic rock fragments; noneffervescent; moderately acid, pH 5.8; clear wavy boundary. Lab sample # 18N06667

BAt1--28 to 72 centimeters (11.0 to 28.3 inches); dark brown (7.5YR 3/3) extremely cobbly sandy clay loam, dark yellowish brown (10YR 4/4), dry; 65 percent sand; 23 percent clay; moderate fine subangular blocky structure; very fine roots and medium roots and fine roots and coarse roots; many very fine dendritic tubular pores; 10 percent clay bridges and 25 percent clay films; 15 percent nonflat indurated 2 to 20-millimeter Volcanic rock fragments and 15 percent nonflat indurated 20 to 75-millimeter Volcanic rock fragments and 15 percent nonflat indurated 250 to 600-millimeter Volcanic rock fragments and 25 percent nonflat indurated 75 to 250-millimeter Volcanic rock fragments; noneffervescent; moderately acid, pH 6.0; gradual wavy boundary. Lab sample # 18N06668

BAt2--72 to 110 centimeters (28.3 to 43.3 inches); very dark brown (7.5YR 2.5/3) extremely gravelly sandy clay loam, brown (7.5YR 4/3), dry; 65 percent sand; 24 percent clay; massive; very fine roots and medium roots; many very fine dendritic tubular pores; 10 percent clay bridges and 15 percent clay films; 25 percent nonflat indurated 2 to 20-millimeter Volcanic rock fragments and 30 percent nonflat indurated 20 to 75-millimeter Volcanic rock fragments and 30 percent nonflat indurated 75 to 250-millimeter Volcanic rock fragments; noneffervescent; moderately acid, pH 6.0. Lab sample # 18N06669

**PEDON DESCRIPTION -- NEON Site YELL**

**Print Date:** Apr 5 2019  
**Description Date:** Aug 18 2018  
**Describer:** Chris Fabian  
**NEON Plot ID:** YELL\_005  
**Site ID:** S2018WY029005

**Pedon ID:** S2018WY029005

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N2843

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

**Classification:** Fine-loamy, mixed, superactive Ustic Argicryolls

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** soil survey inventory

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** on backslope of nose slope of Is foothills  
on backslope of nose slope of If hill

**Upslope Shape:** convex

**Cross Slope Shape:** linear

**Particle Size Control Section:**

**Description origin:** Pedon PC 6.3

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

**Country:** United States

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National  
Park, Wyoming-Montana-Idaho

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 44.9482700

**Std Longitude:** -110.6315200

**Latitude:** 44 degrees 56 minutes 53.78 seconds  
north

**Longitude:** 110 degrees 37 minutes 53.47  
seconds west

**Datum:** WGS84

**UTM Zone:** 12

**UTM Easting:** 529068 meters

**UTM Northing:** 4977270 meters

**Primary Earth Cover:** Shrub cover

**Secondary Earth Cover:** Other grass/herbaceous  
cover

**Existing Vegetation:** bluebunch wheatgrass,  
bluegrass, Columbia needlegrass, creeping  
barberry, Idaho fescue, Junegrass, mountain big  
sagebrush, rabbitbrush, snowberry, sticky purple  
geranium, Wyoming big sagebrush

**Parent Material:** colluvium and/or till

**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)
37.0	2,118.0	118						well		

A--0 to 6 centimeters (0.0 to 2.4 inches); black (10YR 2/1) highly organic loam, dark grayish brown (10YR 4/2), dry; 40 percent sand; 13 percent clay; weak fine granular structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine roots and common medium roots and common fine roots and common coarse roots; common very fine and common medium and common fine and common coarse pores; 1 percent nonflat indurated 20 to 250-millimeter Volcanic rock fragments and 13 percent nonflat indurated 2 to 75-millimeter Volcanic rock fragments; noneffervescent; moderately acid, pH 6.0; clear smooth boundary. Lab sample # 18N06670

BAt--6 to 35 centimeters (2.4 to 13.8 inches); very dark brown (10YR 2/2) gravelly loam, dark grayish brown (10YR 4/2), dry; 42 percent sand; 24 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; common very fine roots and common fine roots and common coarse roots; common very fine and common fine pores; 2 percent faint clay films on surfaces along pores; 1 percent nonflat indurated 75 to 250-millimeter Volcanic rock fragments and 3 percent nonflat indurated 20 to 75-millimeter Volcanic rock fragments and 13 percent nonflat indurated 2 to 20-millimeter Volcanic rock fragments; noneffervescent; moderately acid, pH 6.0; clear wavy boundary. Lab sample # 18N06671

Bt--35 to 62 centimeters (13.8 to 24.4 inches); brown (10YR 4/3) gravelly sandy clay loam, brown (10YR 5/3), dry; 49 percent sand; 26 percent clay; moderate coarse prismatic, and weak medium subangular blocky structure; moderately hard, firm, moderately sticky, moderately plastic; common medium roots and common fine roots and common coarse roots; common very fine and common fine pores; 25 percent distinct clay bridges between sand grains; 1 percent nonflat indurated 20 to 75-millimeter Volcanic rock fragments and 5 percent nonflat indurated 75 to 250-millimeter Volcanic rock fragments and 17 percent nonflat indurated 2 to 20-millimeter Volcanic rock fragments; noneffervescent; moderately acid, pH 6.0; clear wavy boundary. Lab sample # 18N06672

BCt--62 to 105 centimeters (24.4 to 41.3 inches); brown (10YR 4/3) cobbly loam, 50 percent brown (7.5YR 4/4) and 50 percent brown (10YR 5/3), dry; 38 percent sand; 26 percent clay; 10 percent (10YR 6/2) and 10 percent (10YR 4/6) and 10 percent (10YR 4/3) and 10 percent (10YR 3/4) mottles; weak coarse subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; common very fine roots and common coarse roots; common very fine dendritic tubular pores; 5 percent distinct clay films on surfaces along pores and 8 percent distinct clay bridges between sand grains; 2 percent nonflat indurated 20 to 75-millimeter Volcanic rock fragments and 6 percent nonflat indurated 75 to 250-millimeter Volcanic rock fragments and 9 percent nonflat indurated 2 to 20-millimeter Volcanic rock fragments; noneffervescent; moderately acid, pH 6.0. Lab sample # 18N06673

**PEDON DESCRIPTION -- NEON Site YELL**

**Print Date:** Apr 5 2019  
**Description Date:** Aug 11 2018  
**Describer:** Chris Fabian  
**NEON Plot ID:** YELL\_007  
**Site ID:** S2018WY029007

**Pedon ID:** S2018WY029007

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N2844

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

**Classification:** Fine-loamy, mixed, superactive Pachic Argicryolls

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** soil survey inventory

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** on footslope of base slope of Is foothills  
on footslope of base slope of Is mountains  
on footslope of base slope of If hill

**Upslope Shape:** linear

**Cross Slope Shape:** concave

**Particle Size Control Section:**

**Description origin:** Pedon PC 6.3

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

**Country:** United States

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National Park, Wyoming-Montana-Idaho

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 44.9176500

**Std Longitude:** -110.4288300

**Latitude:** 44 degrees 55 minutes 3.54 seconds north

**Longitude:** 110 degrees 25 minutes 43.79 seconds west

**Datum:** WGS84

**UTM Zone:** 12

**UTM Easting:** 545081 meters

**UTM Northing:** 4973961 meters

**Primary Earth Cover:** Shrub cover

**Secondary Earth Cover:** Other grass/herbaceous cover

**Existing Vegetation:** arnica, basin wildrye, bluebunch wheatgrass, bluegrass, fragrant bedstraw, green needlegrass, Idaho fescue, lupine, mountain big sagebrush, mountain brome, sedge, sticky purple geranium, timothy, Tracy's bluegrass, Virginia strawberry, yarrow

**Parent Material:** colluvium derived from rhyolite and/or colluvium derived from tuff and/or colluvium derived from basalt

**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)
32.0	2,089.0	46						well		

A1--0 to 6 centimeters (0.0 to 2.4 inches); very dark brown (10YR 2/2) gravelly highly organic sandy loam, grayish brown (10YR 5/2), dry; 65 percent sand; 14 percent clay; weak fine granular structure; many very fine roots and common medium roots and common fine roots and common coarse roots; 1 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 32 percent nonflat indurated 2 to 20-millimeter unspecified fragments; slightly acid, pH 6.4; clear smooth boundary. Lab sample # 18N06674

A2--6 to 14 centimeters (2.4 to 5.5 inches); very dark brown (7.5YR 2.5/3) gravelly sandy loam, brown (10YR 4/3), dry; 60 percent sand; 16 percent clay; weak fine subangular blocky structure; common very fine roots and common medium roots and common fine roots and common coarse roots; common very fine dendritic tubular and many fine tubular pores; 2 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 28 percent nonflat indurated 2 to 20-millimeter unspecified fragments; slightly acid, pH 6.4; clear wavy boundary. Lab sample # 18N06675

BAt1--14 to 25 centimeters (5.5 to 9.8 inches); very dark grayish brown (10YR 3/2) gravelly sandy clay loam, brown (10YR 4/3), dry; 60 percent sand; 24 percent clay; weak medium subangular blocky structure; common very fine roots and common medium roots and common fine roots; many medium tubular pores; 2 percent faint clay bridges; 2 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 25 percent nonflat indurated 2 to 20-millimeter unspecified fragments; slightly acid, pH 6.2; gradual wavy boundary. Lab sample # 18N06676

BAt2--25 to 60 centimeters (9.8 to 23.6 inches); very dark grayish brown (10YR 3/2) gravelly sandy clay loam, dark grayish brown (10YR 4/2), dry; 65 percent sand; 21 percent clay; weak medium subangular blocky structure; common very fine roots and common medium roots and common fine roots; common fine dendritic tubular pores; 5 percent distinct clay bridges and 10 percent faint clay bridges; 5 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 20 percent nonflat indurated 2 to 20-millimeter unspecified fragments; moderately acid, pH 6.0; gradual wavy boundary. Lab sample # 18N06677

BCt--60 to 105 centimeters (23.6 to 41.3 inches); dark brown (10YR 3/3) gravelly sandy loam, brown (10YR 4/3), dry; 68 percent sand; 13 percent clay; weak coarse prismatic structure; common very fine roots and common medium roots and common fine roots throughout; common fine dendritic tubular pores; 10 percent faint clay bridges; 8 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 20 percent nonflat indurated 2 to 20-millimeter unspecified fragments; moderately acid, pH 6.0. Lab sample # 18N06678

**PEDON DESCRIPTION -- NEON Site YELL**

**Print Date:** Apr 5 2019  
**Description Date:** Aug 9 2018  
**Describer:** Chris Fabian  
**NEON Plot ID:** YELL\_012  
**Site ID:** S2018WY029012

**Pedon ID:** S2018WY029012

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N2845

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

**Classification:** Loamy-skeletal, mixed, superactive Pachic Haplocryolls

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** soil survey inventory

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** on footslope of base slope of Is mountains  
on footslope of base slope of If colluvial apron

**Upslope Shape:** linear

**Cross Slope Shape:** linear

**Particle Size Control Section:**

**Description origin:** Pedon PC 6.3

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

**Country:** United States

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National  
Park, Wyoming-Montana-Idaho

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 44.9445100

**Std Longitude:** -110.4338800

**Latitude:** 44 degrees 56 minutes 40.24 seconds  
north

**Longitude:** 110 degrees 26 minutes 1.97 seconds  
west

**Datum:** WGS84

**UTM Zone:** 12

**UTM Easting:** 544662 meters

**UTM Northing:** 4976942 meters

**Primary Earth Cover:** Tree cover

**Secondary Earth Cover:** Other shrub cover

**Existing Vegetation:** bluebunch wheatgrass,  
common juniper, creeping barberry, Douglas-fir,  
Idaho fescue, lodgepole pine, mountain snowberry,  
pinegrass, White Mountain sedge, white spirea

**Parent Material:** colluvium derived from gneiss  
and/or colluvium derived from volcanic rock over  
subglacial till

**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**

**Bedrock Fracture Interval:**

**Surface Fragments:** 6.0 percent nonflat indurated  
250- to 600-millimeter and 8.0 percent nonflat  
indurated 600

**Description database:** KSSL

Cont. Site ID: S2018WY029012

Pedon ID: S2018WY029012

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
24.0	1,920.0	260						well		

Oi--0 to 3 centimeters (0.0 to 1.2 inches); black (10YR 2/1) slightly decomposed plant material, very dark brown (10YR 2/2), dry; moderately acid, pH 6.0; clear smooth boundary. Lab sample # 18N06679

A1--3 to 22 centimeters (1.2 to 8.7 inches); dark olive brown (2.5Y 3/3) gravelly sandy loam, grayish brown (2.5Y 5/2), dry; 55 percent sand; 17 percent clay; weak fine subangular blocky structure; common very fine roots and common medium roots and common fine roots and common coarse roots; common fine dendritic tubular pores; 3 percent nonflat indurated 75 to 250-millimeter unspecified fragments and 3 percent nonflat indurated 250 to 600-millimeter unspecified fragments and 10 percent nonflat indurated 2 to 20-millimeter unspecified fragments; slightly acid, pH 6.2; clear wavy boundary. Lab sample # 18N06680

A2--22 to 48 centimeters (8.7 to 18.9 inches); dark brown (10YR 3/3) extremely gravelly sandy loam, brown (10YR 5/3), dry; 70 percent sand; 16 percent clay; weak medium subangular blocky structure; common very fine roots and common medium roots and common fine roots; common fine dendritic tubular pores; 8 percent nonflat indurated 600 to 3000-millimeter unspecified fragments and 10 percent nonflat indurated 2 to 20-millimeter unspecified fragments and 15 percent nonflat indurated 250 to 600-millimeter unspecified fragments and 17 percent nonflat indurated 75 to 250-millimeter unspecified fragments and 35 percent nonflat 20 to 75-millimeter unspecified fragments; slightly acid, pH 6.2; abrupt wavy boundary. Lab sample # 18N06681

CA--48 to 85 centimeters (18.9 to 33.5 inches); 80 percent dark yellowish brown (10YR 3/4) and 20 percent dark brown (10YR 3/3) extremely cobbly sandy loam, 50 percent brown (10YR 4/3) and 50 percent brown (10YR 4/3), dry; 63 percent sand; 16 percent clay; massive; common very fine roots; 10 percent nonflat indurated 2 to 20-millimeter unspecified fragments and 15 percent nonflat indurated 250 to 600-millimeter unspecified fragments and 20 percent nonflat indurated 75 to 250-millimeter unspecified fragments and 30 percent nonflat indurated 20 to 75-millimeter unspecified fragments; slightly acid, pH 6.2. Lab sample # 18N06682

**PEDON DESCRIPTION -- NEON Site YELL**

**Print Date:** Apr 5 2019  
**Description Date:** Aug 11 2018  
**Describer:** Chris Fabian  
**NEON Plot ID:** YELL\_019  
**Site ID:** S2018WY029019

**Pedon ID:** S2018WY029019

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N2846

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

**Classification:** Fine-loamy, mixed, superactive Ustic Haplocryolls

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** soil survey inventory

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** on backslope of side slope of mountainflank of If hillside

on backslope of side slope of mountainflank of Is mountains

**Upslope Shape:** linear

**Cross Slope Shape:** linear

**Particle Size Control Section:**

**Description origin:** Pedon PC 6.3

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

**Country:** United States

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National Park, Wyoming-Montana-Idaho

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 44.9554800

**Std Longitude:** -110.4945500

**Latitude:** 44 degrees 57 minutes 19.73 seconds north

**Longitude:** 110 degrees 29 minutes 40.38 seconds west

**Datum:** WGS84

**UTM Zone:** 12

**UTM Easting:** 539868 meters

**UTM Northing:** 4978129 meters

**Primary Earth Cover:** Shrub cover

**Secondary Earth Cover:** Other grass/herbaceous cover

**Existing Vegetation:** buckwheat, geranium, Geyer's sedge, Idaho fescue, lupine, mountain big sagebrush, rabbitbrush, yarrow

**Parent Material:** subglacial till derived from volcanic rock

**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**

**Bedrock Fracture Interval:**

**Surface Fragments:** 0.0 percent nonflat indurated 600

**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)
15.0	2,160.0	19						well		

A1--0 to 13 centimeters (0.0 to 5.1 inches); very dark brown (10YR 2/2) loam, very dark grayish brown (10YR 3/2), dry; 40 percent sand; 27 percent clay; weak fine granular structure; soft, very friable, nonsticky, nonplastic; very fine roots and medium roots and fine roots and coarse roots; 1 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 13 percent nonflat indurated 2 to 20-millimeter unspecified fragments; noneffervescent; slightly acid, pH 6.2; clear wavy boundary. Lab sample # 18N06683

A2--13 to 36 centimeters (5.1 to 14.2 inches); very dark brown (10YR 2/2) loam, very dark grayish brown (10YR 3/2), dry; 38 percent sand; 26 percent clay; weak fine subangular blocky structure; slightly hard, very friable, slightly sticky, moderately plastic; very fine roots and medium roots and fine roots; very fine dendritic tubular and medium tubular and dendritic tubular pores; 2 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 12 percent nonflat indurated 2 to 20-millimeter unspecified fragments; noneffervescent; moderately acid, pH 6.0; abrupt wavy boundary. Lab sample # 18N06684

2C--36 to 68 centimeters (14.2 to 26.8 inches); dark yellowish brown (10YR 3/4) extremely paragravelly sandy clay loam, dark yellowish brown (10YR 4/4), dry; 55 percent sand; 22 percent clay; massive; hard, friable, slightly sticky, moderately plastic; very fine roots and fine roots; 2 percent nonflat indurated 75 to 250-millimeter unspecified fragments and 10 percent nonflat indurated 2 to 20-millimeter unspecified fragments and 30 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 45 percent nonflat weakly cemented 2 to 20-millimeter unspecified fragments; noneffervescent; moderately acid, pH 5.8; gradual wavy boundary. Lab sample # 18N06685

2Cr--68 to 85 centimeters (26.8 to 33.5 inches); bedrock; massive; .

PEDON DESCRIPTION -- NEON Site YELL

**Print Date:** Apr 5 2019  
**Description Date:** Aug 7 2018  
**Describer:** Chris Fabian  
**NEON Plot ID:** YELL\_021  
**Site ID:** S2018WY029021

**Pedon ID:** S2018WY029021

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N2847

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

**Classification:** Loamy-skeletal over fragmental, mixed, superactive Ustic Haplocryepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** soil survey inventory

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** Is mountains  
If mountain slope  
If bench on If hillslope

**Upslope Shape:** linear

**Cross Slope Shape:** linear

**Particle Size Control Section:**

**Description origin:** Pedon PC 6.3

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

**Country:** United States

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National Park, Wyoming-Montana-Idaho

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 44.9038200

**Std Longitude:** -110.4183000

**Latitude:** 44 degrees 54 minutes 13.75 seconds north

**Longitude:** 110 degrees 25 minutes 5.88 seconds west

**Datum:** WGS84

**UTM Zone:** 12

**UTM Easting:** 545924 meters

**UTM Northing:** 4972431 meters

**Primary Earth Cover:** Tree cover

**Secondary Earth Cover:** Other shrub cover

**Existing Vegetation:** buffaloberry, common juniper, common wormwood, Douglas-fir, Engelmann spruce, grouse whortleberry, limber pine, lodgepole pine, twinflower

**Parent Material:** till derived from rhyolite

**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**

**Bedrock Fracture Interval:**

**Surface Fragments:**

**Description database:** KSSL

Cont. Site ID: S2018WY029021

Pedon ID: S2018WY029021

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
13.0	2,106.0	345						well		

Oi--0 to 7 centimeters (0.0 to 2.8 inches); black (10YR 2/1) slightly decomposed plant material, very dark brown (10YR 2/2), dry; common fine roots throughout; clear wavy boundary. Lab sample # 18N06686

E--7 to 35 centimeters (2.8 to 13.8 inches); brown (7.5YR 4/2) extremely cobbly sandy loam, pinkish gray (7.5YR 6/2), dry; 53 percent sand; 19 percent clay; weak medium subangular blocky, and moderate fine subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; many very fine roots throughout and common coarse roots throughout; 1 percent nonflat indurated 250 to 600-millimeter unspecified fragments and 20 percent nonflat indurated 75 to 250-millimeter unspecified fragments and 40 percent nonflat indurated 2 to 20-millimeter unspecified fragments; moderately acid, pH 5.8; abrupt smooth boundary. Lab sample # 18N06687

C--35 to 65 centimeters (13.8 to 25.6 inches); boulders; common medium roots throughout and many fine roots throughout; common irregular pores; 100 percent nonflat subrounded indurated 600 to 3000-millimeter unspecified fragments.

**PEDON DESCRIPTION -- NEON Site YELL**

**Print Date:** Apr 5 2019  
**Description Date:** Aug 9 2018  
**Describer:** Chris Fabian  
**NEON Plot ID:** YELL\_022  
**Site ID:** S2018WY029022

**Pedon ID:** S2018WY029022

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N2848

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

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

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** soil survey inventory

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** on backslope of side slope of Is mountains  
on backslope of side slope of If valley side  
on backslope of side slope of If strike valley

**Upslope Shape:** linear

**Cross Slope Shape:** concave

**Particle Size Control Section:**

**Description origin:** Pedon PC 6.3

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

**Country:** United States

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National Park, Wyoming-Montana-Idaho

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 44.9384600

**Std Longitude:** -110.4320300

**Latitude:** 44 degrees 56 minutes 18.46 seconds north

**Longitude:** 110 degrees 25 minutes 55.31 seconds west

**Datum:** WGS84

**UTM Zone:** 12

**UTM Easting:** 544813 meters

**UTM Northing:** 4976271 meters

**Primary Earth Cover:** Grass/herbaceous cover

**Secondary Earth Cover:** Other grass/herbaceous cover

**Existing Vegetation:** bluebunch wheatgrass, creeping barberry, dogbane, Douglas-fir, Idaho fescue, kinnikinnick, lodgepole pine, needlepod rush, roundfruit rush

**Parent Material:** colluvium derived from gneiss

**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**

**Bedrock Fracture Interval:**

**Surface Fragments:** 15.0 percent nonflat indurated 250- to 600-millimeter and 8.0 percent nonflat indurated 600

**Description database:** KSSL

Cont. Site ID: S2018WY029022

Pedon ID: S2018WY029022

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
57.0	1,943.0	270						well		

Oi--0 to 5 centimeters (0.0 to 2.0 inches); black (10YR 2/1) slightly decomposed plant material, very dark brown (10YR 2/2), dry; .  
Lab sample # 18N06688

A--5 to 15 centimeters (2.0 to 5.9 inches); very dark brown (7.5YR 2.5/3) very flaggy sandy loam, dark yellowish brown (10YR 4/4), dry; 54 percent sand; 15 percent clay; weak medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common medium roots and common fine roots and common coarse roots; common very fine interstitial and common fine dendritic tubular pores; 18 percent flat indurated 2 to 150-millimeter Gneiss fragments and 22 percent nonflat indurated 150 to 380-millimeter Gneiss fragments; noneffervescent. Lab sample # 18N06689

Bw--15 to 49 centimeters (5.9 to 19.3 inches); dark yellowish brown (10YR 3/4) extremely flaggy fine sandy loam, yellowish brown (10YR 5/4), dry; 60 percent sand; 12 percent clay; weak medium subangular blocky structure; slightly hard, friable, nonsticky, nonplastic; common very fine roots and common medium roots and common fine roots and common coarse roots; many very fine and common fine dendritic tubular and common fine pores; 25 percent nonflat indurated 2 to 150-millimeter Gneiss fragments and 45 percent nonflat indurated 150 to 380-millimeter Gneiss fragments; noneffervescent. Lab sample # 18N06690

R--49 to 100 centimeters (19.3 to 39.4 inches); bedrock; massive; .

**PEDON DESCRIPTION -- NEON Site YELL**

**Print Date:** Apr 5 2019  
**Description Date:** Aug 1 2018  
**Describer:** Chris Fabian  
**NEON Plot ID:** YELL\_024  
**Site ID:** S2018WY029024

**Pedon ID:** S2018WY029024

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N2849

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

**Classification:** Fine-loamy, mixed, superactive, frigid Calcic Haplustepts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** soil survey inventory

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** Is mountains  
If lateral moraine

**Upslope Shape:** linear

**Cross Slope Shape:** linear

**Particle Size Control Section:**

**Description origin:** Pedon PC 6.3

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

**Country:** United States

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National Park, Wyoming-Montana-Idaho

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 44.9680100

**Std Longitude:** -110.4919000

**Latitude:** 44 degrees 58 minutes 4.84 seconds north

**Longitude:** 110 degrees 29 minutes 30.84 seconds west

**Datum:** WGS84

**UTM Zone:** 12

**UTM Easting:** 540068 meters

**UTM Northing:** 4979522 meters

**Primary Earth Cover:** Grass/herbaceous cover

**Secondary Earth Cover:** Other grass/herbaceous cover

**Existing Vegetation:** bluebunch wheatgrass, horsebrush, Indian ricegrass, Junegrass, milkvetch, phlox, rabbitbrush, sage, wild onion

**Parent Material:** subglacial till

**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**

**Bedrock Fracture Interval:**

**Surface Fragments:** 2.9 percent nonflat indurated 250- to 600-millimeter and 0.7 percent nonflat indurated 600

**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)
36.0	1,999.0	210						well		

A--0 to 8 centimeters (0.0 to 3.1 inches); pale brown (10YR 6/3) cobbly sandy loam, brown (10YR 4/3), moist; 58 percent sand; 21 percent clay; weak very fine granular structure; soft, very friable, moderately sticky, moderately plastic; common very fine roots and common medium roots and common fine roots and common coarse roots; common very fine interstitial pores; 2 percent clay bridges; 5 percent nonflat indurated 2 to 20-millimeter Mixed rock fragments and 5 percent nonflat indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat indurated 20 to 75-millimeter Mixed rock fragments; slight effervescence; slightly alkaline, pH 7.4; clear smooth boundary. Lab sample # 18N06691

Bk1--8 to 32 centimeters (3.1 to 12.6 inches); brown (10YR 5/3) loam, brown (10YR 4/3), moist; 40 percent sand; 26 percent clay; weak fine platy structure; slightly hard, friable, moderately sticky, moderately plastic; common very fine roots and common fine roots; common very fine interstitial pores; 6 percent clay bridges; 3 percent nonflat indurated 20 to 75-millimeter Mixed rock fragments and 4 percent nonflat indurated 2 to 20-millimeter Mixed rock fragments; strong effervescence; slightly alkaline, pH 7.6; gradual wavy boundary. Lab sample # 18N06692

Bk2--32 to 51 centimeters (12.6 to 20.1 inches); pale yellow (2.5Y 7/3) loam, light olive brown (2.5Y 5/3), moist; 40 percent sand; 25 percent clay; moderate coarse platy structure; moderately hard, firm, moderately sticky, moderately plastic; common very fine roots; 12 percent clay bridges; 3 percent nonflat indurated 2 to 20-millimeter Mixed rock fragments; violent effervescence; slightly alkaline, pH 7.8; gradual wavy boundary. Lab sample # 18N06693

Bk3--51 to 66 centimeters (20.1 to 26.0 inches); pale yellow (2.5Y 7/3) loam, light olive brown (2.5Y 5/3), moist; 45 percent sand; 23 percent clay; moderate medium platy structure; moderately hard, firm, moderately sticky, moderately plastic; common very fine roots; 10 percent clay bridges; 2 percent nonflat indurated 20 to 75-millimeter Mixed rock fragments and 3 percent nonflat indurated 2 to 20-millimeter Mixed rock fragments; very slight effervescence; slightly alkaline, pH 7.6; gradual wavy boundary. Lab sample # 18N06694

CBk--66 to 104 centimeters (26.0 to 40.9 inches); light olive brown (2.5Y 5/3) loam, olive brown (2.5Y 4/3), moist; 45 percent sand; 22 percent clay; massive; moderately hard, firm, moderately sticky, moderately plastic; common very fine roots; 10 percent nonflat indurated 20 to 75-millimeter Mixed rock fragments; very slight effervescence; slightly alkaline, pH 7.4. Lab sample # 18N06695

**PEDON DESCRIPTION -- NEON Site YELL**

**Print Date:** Apr 5 2019  
**Description Date:** Aug 31 2018  
**Describer:** Chris Fabian  
**NEON Plot ID:** YELL\_025  
**Site ID:** S2018WY029025

**Pedon ID:** S2018WY029025

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N2850

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

**Classification:** Fine-loamy, mixed, superactive Ustic Argicryolls

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** soil survey inventory

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** on nose slope of Is mountains  
on nose slope of If hill

**Upslope Shape:** linear

**Cross Slope Shape:** convex

**Particle Size Control Section:**

**Description origin:** Pedon PC 6.3

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

**Country:** United States

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National  
Park, Wyoming-Montana-Idaho

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 44.9663500

**Std Longitude:** -110.5034000

**Latitude:** 44 degrees 57 minutes 58.86 seconds  
north

**Longitude:** 110 degrees 30 minutes 12.24  
seconds west

**Datum:** WGS84

**UTM Zone:** 12

**UTM Easting:** 539163 meters

**UTM Northing:** 4979332 meters

**Primary Earth Cover:** Shrub cover

**Secondary Earth Cover:** Other grass/herbaceous  
cover

**Existing Vegetation:** bluebunch wheatgrass,  
buckwheat, Idaho fescue, Junegrass, milkvetch,  
mountain big sagebrush, phlox, rubber rabbitbrush,  
Sandberg bluegrass

**Parent Material:** subglacial till over residuum  
weathered from rhyolite

**Bedrock Kind:**

**Bedrock Depth:**

**Bedrock Hardness:**

**Bedrock Fracture Interval:**

**Surface Fragments:**

**Description database:** KSSL

Cont. Site ID: S2018WY029025

Pedon ID: S2018WY029025

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
5.0	2,032.0	170						well		

A--0 to 4 centimeters (0.0 to 1.6 inches); very dark brown (10YR 2/2) sandy clay loam, grayish brown (10YR 5/2), dry; 55 percent sand; 24 percent clay; weak fine granular structure; soft; many very fine roots and common medium roots and common fine roots; 7 percent nonflat indurated 2 to 20-millimeter unspecified fragments; noneffervescent; clear smooth boundary. Lab sample # 18N06696

BAt1--4 to 20 centimeters (1.6 to 7.9 inches); dark brown (10YR 3/3) clay loam, brown (10YR 4/3), dry; 42 percent sand; 32 percent clay; weak medium subangular blocky, and moderate fine granular structure; hard; common very fine roots and common fine roots; 5 percent clay films and 25 percent clay bridges; 3 percent nonflat indurated 2 to 20-millimeter unspecified fragments; noneffervescent; clear wavy boundary. Lab sample # 18N06697

BAt2--20 to 37 centimeters (7.9 to 14.6 inches); dark brown (10YR 3/3) clay loam, brown (10YR 4/3), dry; 40 percent sand; 28 percent clay; moderate fine subangular blocky structure; hard; common very fine roots and common medium roots and common fine roots; 25 percent clay bridges; 1 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 2 percent nonflat indurated 2 to 20-millimeter unspecified fragments; noneffervescent; gradual wavy boundary. Lab sample # 18N06698

C--37 to 57 centimeters (14.6 to 22.4 inches); olive brown (2.5Y 4/3) clay loam, weak red (2.5YR 4/2), dry; 40 percent sand; 29 percent clay; massive; hard; common very fine roots throughout; 45 percent carbonate coats; 1 percent nonflat subangular weakly cemented 20 to 75-millimeter unspecified fragments and 5 percent nonflat subrounded indurated 75 to 250-millimeter unspecified fragments and 8 percent nonflat subangular weakly cemented 2 to 20-millimeter unspecified fragments; slight effervescence; gradual wavy boundary. Lab sample # 18N06699

Cr--57 to 75 centimeters (22.4 to 29.5 inches); bedrock; massive; hard; .

**PEDON DESCRIPTION -- NEON Site YELL**

**Print Date:** Apr 5 2019  
**Description Date:** Aug 10 2018  
**Describer:** Chris Fabian  
**NEON Plot ID:** YELL\_029  
**Site ID:** S2018WY029029

**Pedon ID:** S2018WY029029

**Site Note:**

**Pedon Note:**

**Lab Source ID:** KSSL

**Lab Pedon #:** 18N2851

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

**Classification:** Loamy-skeletal, mixed, superactive Ustic Haplocrypts

**Soil Name as Correlated:**

**Classification:**

**Pedon Type:**

**Pedon Purpose:** soil survey inventory

**Taxon Kind:** series

**Associated Soils:**

**Physiographic Division:**

**Physiographic Province:**

**Physiographic Section:**

**State Physiographic Area:**

**Local Physiographic Area:**

**Geomorphic Setting:** on shoulder of side slope of Is mountains  
on shoulder of side slope of If hillslope

**Upslope Shape:** linear

**Cross Slope Shape:** convex

**Particle Size Control Section:**

**Description origin:** Pedon PC 6.3

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

**Country:** United States

**State:** Wyoming

**County:** Park

**MLRA:** 43B -- Central Rocky Mountains

**Soil Survey Area:** WY665 -- Yellowstone National  
Park, Wyoming-Montana-Idaho

**Map Unit:**

**Pit Location:**

**Quad Name:**

**Std Latitude:** 44.9398800

**Std Longitude:** -110.6414900

**Latitude:** 44 degrees 56 minutes 23.57 seconds  
north

**Longitude:** 110 degrees 38 minutes 29.36  
seconds west

**Datum:** WGS84

**UTM Zone:** 12

**UTM Easting:** 528286 meters

**UTM Northing:** 4976334 meters

**Primary Earth Cover:** Tree cover

**Secondary Earth Cover:** Other shrub cover

**Existing Vegetation:** aster, currant, Douglas-fir,  
fireweed, fragrant bedstraw, goldenrod, lodgepole  
pine, pinegrass, sagebrush rockcress, sweetcicely,  
vetch, Virginia strawberry, White Mountain sedge,  
white spirea

**Parent Material:** colluvium derived from tuff

**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)
45.0	2,032.0	0						well		

A--0 to 5 centimeters (0.0 to 2.0 inches); dark grayish brown (10YR 4/2) very gravelly sandy loam, light brownish gray (10YR 6/2), dry; 55 percent sand; 15 percent clay; weak medium subangular blocky, and weak fine granular structure; common very fine roots and common fine roots; 5 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 45 percent nonflat indurated 2 to 20-millimeter unspecified fragments; moderately acid, pH 6.0; clear wavy boundary. Lab sample # 18N06700

Bw1--5 to 14 centimeters (2.0 to 5.5 inches); brown (10YR 4/3) extremely gravelly sandy loam, light brownish gray (10YR 6/2), dry; 62 percent sand; 18 percent clay; weak medium subangular blocky structure; common very fine roots and common medium roots and common fine roots and common coarse roots; many very fine dendritic tubular and common fine dendritic tubular pores; 8 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 55 percent nonflat indurated 2 to 20-millimeter unspecified fragments; slightly acid, pH 6.2; gradual wavy boundary. Lab sample # 18N06701

Bw2--14 to 39 centimeters (5.5 to 15.4 inches); brown (10YR 4/3) extremely gravelly sandy loam, light brownish gray (10YR 6/2), dry; 65 percent sand; 16 percent clay; weak medium subangular blocky structure; common very fine roots and common very coarse roots and common medium roots and common fine roots; many coarse interstitial pores; 20 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 45 percent nonflat indurated 2 to 20-millimeter unspecified fragments; slightly acid, pH 6.4; gradual wavy boundary. Lab sample # 18N06702

C--39 to 96 centimeters (15.4 to 37.8 inches); brown (10YR 4/3) extremely gravelly sandy loam, light brownish gray (10YR 6/2), dry; 65 percent sand; 13 percent clay; massive; many very fine roots and common medium roots and common fine roots; many coarse interstitial pores; 20 percent nonflat indurated 20 to 75-millimeter unspecified fragments and 50 percent nonflat indurated 2 to 20-millimeter unspecified fragments; strongly acid, pH 5.4. Lab sample # 18N06703