PEDON DESCRIPTION -- NEON Site MLBS

Print Date: Jan 22 2019
Description Date: May 16 2018
Describer: Jennifer Mason
NEON Plot ID: MLBS_001

Site ID: S2018VA071001
Pedon ID: S2018VA071001

Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N1996
Soil Name as Described/Sampled: Hazleton
Classification: Loamy-skeletal, mesic Typic Dystrudepts

Soil Name as Correlated:

Classification:
Pedon Type: confirmation description
Pedon Purpose: research site
Taxon Kind: taxon above family
Associated Soils:
Physiographic Division: Appalachian Highlands
Physiographic Province: Valley and Ridge Province
Physiographic Section: Middle section
State Physiographic Area:

Local Physiographic Area:
Geomorphic Setting: on mountaintop of mountains on mountain
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 65 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 10 cm. cambic horizon 30 to 65 cm.

Country: United States
State: Virginia
County: Giles
MLRA: 128 -- Southern Appalachian Ridges and Valleys
Soil Survey Area: 6-CLI -- Clinton, Tennessee
Map Unit: 27C -- Lily-Bailegap complex, very stony, 2 to 15 percent slopes
Pit Location:
Quad Name: Eggleston, Virginia
Std Latitude: 37.360555
Std Longitude: -80.525194

Latitude: 37 degrees 21 minutes 38.00 seconds north
Longitude: 80 degrees 31 minutes 30.70 seconds west
Datum: WGS84
UTM Zone: 17
UTM Easting: 542046 meters
UTM Northing: 4334977 meters

Primary Earth Cover: Tree cover
Secondary Earth Cover: Hardwoods
Existing Vegetation:
Parent Material: skeletal loamy residuum weathered from sandstone
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL
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A--0 to 10 centimeters (0.0 to 3.9 inches); black (7.5YR 2.5/1) broken face very gravelly loam; weak medium granular, and weak fine subangular blocky structure; very friable; many very fine roots throughout and many fine roots throughout; 5 percent nonflat subangular indurated 2 to 5-millimeter Sandstone fragments and 15 percent nonflat subangular indurated 20 to 76-millimeter Sandstone fragments and 30 percent nonflat subangular indurated 5 to 20-millimeter Sandstone fragments; very strongly acid, pH 5.0, pH indicator solutions; gradual smooth boundary. Lab sample # 18N06031

BA--10 to 30 centimeters (3.9 to 11.8 inches); dark brown (7.5YR 3/4) broken face very gravelly loam; weak medium subangular blocky structure; very friable; common very fine roots throughout and few medium roots throughout and common fine roots throughout and common coarse roots throughout; many medium moderate-continuity tubular pores; 5 percent nonflat subangular indurated 2 to 5-millimeter Sandstone fragments and 15 percent nonflat subangular indurated 20 to 76-millimeter Sandstone fragments and 30 percent nonflat subangular indurated 5 to 20-millimeter Sandstone fragments; very strongly acid, pH 5.0, pH indicator solutions; gradual smooth boundary. Lab sample # 18N06032

Bw1--30 to 50 centimeters (11.8 to 19.7 inches); brown (7.5YR 4/4) broken face extremely gravelly loam; weak fine subangular blocky structure; friable; few very fine roots throughout and common medium roots throughout and few fine roots throughout; common very fine moderate-continuity tubular and common very fine moderate-continuity tubular pores; 10 percent nonflat subangular indurated 2 to 5-millimeter Sandstone fragments and 20 percent nonflat subangular indurated 20 to 76-millimeter Sandstone fragments and 40 percent nonflat subangular indurated 20 to 76-millimeter Sandstone fragments; very strongly acid, pH 4.5, pH indicator solutions; gradual smooth boundary. Lab sample # 18N06033

Bw2--50 to 65 centimeters (19.7 to 25.6 inches); brown (7.5YR 4/3) broken face extremely gravelly sandy loam; weak fine subangular blocky structure; friable; few medium roots throughout; 40 percent nonflat subangular indurated 20 to 76-millimeter Sandstone fragments; very strongly acid, pH 4.5, pH indicator solutions; gradual smooth boundary. Lab sample # 18N06034
PEDON DESCRIPTION -- NEON Site MLBS

Print Date: Jan 22 2019  
Description Date: May 16 2018  
Describer: Scott Aldridge  
NEON Plot ID: MLBS_004

Site ID: S2018VA071004  
Pedon ID: S2018VA071004

Site Note:  
Pedon Note: The soil survey staff entered the classification to the highest level we could in the field due to lack of data. Without mineralogy we cannot classify the pedon to the series level which is the reason taxon above the family was selected. The activity class can be populated once the lab analysis are conducted.  
Lab Source ID: KSSL  
Lab Pedon #: 18N1993  
Soil Name as Described/Sampled: Series Not Desiganted  
Classification: Loamy-skeletal, mesic Typic Hapludults

Soil Name as Correlated:  
Classification:  
Pedon Type: confirmation description  
Pedon Purpose: research site  
Taxon Kind: taxon above family  
Associated Soils:  
Physiographic Division: Appalachian Highlands  
Physiographic Province: Valley and Ridge Province  
Physiographic Section: Middle section  
State Physiographic Area:

Local Physiographic Area:  
Geomorphic Setting: on mountainbase of mountains on mountain slope  
Upland Shape: concave  
Cross Slope Shape: linear  
Particle Size Control Section: 27 to 72 cm.  
Description origin: NASIS  
Diagnostic Features: ochric epipedon 2 to 13 cm.  
argillic horizon 27 to 72 cm.  
lithic contact 72 to 97 cm.

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Country: United States  
State: Virginia  
County: Giles  
MLRA: 128 -- Southern Appalachian Ridges and Valleys

Soil Survey Area: 6-CLI -- Clinton, Tennessee  
VA606 -- Jefferson National Forest, Virginia

Map Unit: 59D -- Gilpin channery silt loam, 15 to 35 percent slopes  
Pit Location:

Quad Name: Interior, Virginia

Std Longitude: -80.512000  
Std Latitude: 37.4292777

Latitude: 37 degrees 25 minutes 45.40 seconds north  
Longitude: 80 degrees 30 minutes 43.20 seconds west

Datum: WGS84  
UTM Zone: 17  
UTM Easting: 543175 meters  
UTM Northing: 4142607 meters

Primary Earth Cover: Tree cover  
Secondary Earth Cover: Hardwoods  
Existing Vegetation:

Parent Material: colluvium derived from interbedded sedimentary rock  
Bedrock Kind: Sandstone  
Bedrock Depth: 72 centimeters  
Bedrock Hardness: indurated  
Bedrock Fracture Interval:  
Surface Fragments:  
Description database: KSSL
Cont. Site ID: S2018VA071004  Pedon ID: S2018VA071004

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</table>

Oi--0 to 1 centimeters (0.0 to 0.4 inches); slightly decomposed plant material; .

Oa--1 to 2 centimeters (0.4 to 0.8 inches); highly decomposed plant material; .

A--2 to 13 centimeters (0.8 to 5.1 inches); dark yellowish brown (10YR 4/4) broken face gravelly silt loam; moderate medium granular structure; very friable; many medium roots throughout and many fine roots throughout and few coarse roots throughout; 15 percent nonflat rounded indurated 5 to 20-millimeter Sandstone fragments and 20 percent nonflat rounded indurated 2 to 5-millimeter Sandstone fragments; abrupt smooth boundary. Lab sample # 18N06016

BA--13 to 27 centimeters (5.1 to 10.6 inches); yellowish brown (10YR 5/4) broken face silt loam; weak fine subangular blocky structure; friable; 5 percent nonflat rounded indurated 2 to 5-millimeter Sandstone fragments; clear smooth boundary. Lab sample # 18N06017

Bt1--27 to 44 centimeters (10.6 to 17.3 inches); 85 percent yellowish brown (10YR 5/6) broken face very gravelly silt loam; 15 percent medium distinct irregular (10YR 6/8) mottles; weak medium subangular blocky structure; friable; many medium roots throughout and many fine roots throughout and many coarse roots throughout; 20 percent nonflat rounded indurated 2 to 5-millimeter Sandstone fragments and 20 percent nonflat rounded indurated 5 to 20-millimeter Sandstone fragments; gradual smooth boundary. Lab sample # 18N06018. Fragment and root content prohibited the sampling team from sampling clods.

Bt2--44 to 72 centimeters (17.3 to 28.3 inches); 70 percent yellowish brown (10YR 5/6) broken face very gravelly clay loam; 5 percent medium distinct irregular (5YR 4/6) and 25 percent medium distinct irregular (10YR 6/8) mottles; weak medium subangular blocky structure; friable; few medium roots throughout and few fine roots throughout; abrupt wavy boundary. Lab sample # 18N06019

R--72 to 97 centimeters (28.3 to 38.2 inches); indurated Sandstone bedrock; . Indurated sandstone bedrock (R) at 72cm.
PEDON DESCRIPTION -- NEON Site MLBS

Print Date: Jan 22 2019
Description Date: May 15 2018
Describer: Scott Aldridge
NEON Plot ID: MLBS_006

Site ID: S2018VA071006
Pedon ID: S2018VA071006

Site Note:
Pedon Note: The soil survey staff entered the classification to the highest level we could in the field due to lack of data. Without mineralogy we cannot classify the pedon to the series level which is the reason taxon above the family was selected. The activity class can be populated once the lab analysis are conducted. The pcs is 25-48 cm, however it should be 25-100 cm but description stops at 48 cm due to water table. Could not manually override the taxonomic classification. It classified as Fine-loamy, mesic Oxyaquic udepts. Could not classify further due to reason described above.

Lab Source ID: KSSL
Lab Pedon #: 18N1991
Soil Name as Described/Sampled: Series Not Designated
Classification: Fine-loamy, mesic Uderts

Soil Name as Correlated:
Classification:
Pedon Type: confirmation description
Pedon Purpose: research site
Taxon Kind: taxon above family
Associated Soils: Jefferson, Shelocta
Physiographic Division: Appalachian Highlands
Physiographic Province: Valley and Ridge Province
Physiographic Section: Middle section
State Physiographic Area:

Local Physiographic Area:
Geomorphic Setting: on tread of mountains on terrace
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 48 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 19 cm.
cambic horizon 19 to 48 cm.
redox depletions with chroma 2 or less 19 to 48 cm.
reduced matrix 30 to 48 cm.
aquic conditions 30 to 48 cm.

Country: United States
State: Virginia
County: Giles
MLRA: 128 -- Southern Appalachian Ridges and Valleys
Soil Survey Area: 6-CLI -- Clinton, Tennessee VA606 -- Jefferson National Forest, Virginia
Map Unit: 26C -- Jefferson loam, 3 to 15 percent slopes

Quad Name: Interior, Virginia
Std Latitude: 37.4266111
Std Longitude: -80.5642500
Latitude: 37 degrees 25 minutes 35.80 seconds north
Longitude: 80 degrees 33 minutes 51.30 seconds west
Datum: WGS84
UTM Zone: 17
UTM Easting: 538554 meters
UTM Northing: 4142289 meters

Primary Earth Cover: Tree cover
Secondary Earth Cover: Hardwoods
Existing Vegetation:
Parent Material: fine-silty alluvium derived from shale and siltstone
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL
Cont. Site ID: S2018VA071006
Pedon ID: S2018VA071006

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A--0 to 19 centimeters (0.0 to 7.5 inches); dark yellowish brown (10YR 3/4) broken face silt loam; weak fine granular structure; very friable; many medium roots throughout and many fine roots throughout; clear wavy boundary. Lab sample # 18N06010

Bw--19 to 30 centimeters (7.5 to 11.8 inches); yellowish brown (10YR 5/6) broken face silt loam; weak fine subangular blocky structure; very friable; common medium roots throughout and common fine roots throughout; 5 percent fine faint irregular 10YR 6/2), moist, iron depletions with diffuse boundaries Throughout and 10 percent medium distinct irregular 10YR 5/2), moist, iron depletions with clear boundaries Throughout; abrupt wavy boundary. Lab sample # 18N06011

Bwg--30 to 48 centimeters (11.8 to 18.9 inches); grayish brown (10YR 5/2) broken face silty clay loam; weak coarse subangular blocky structure; very friable; few fine roots throughout; 20 percent medium prominent irregular 7.5YR 5/6), moist, masses of oxidized iron with sharp boundaries Throughout. Lab sample # 18N06012. This site was somewhat poorly drained. A water table was encountered at 48cm and the hole could not be described beyond 48cm due to water filling the pit.
Print Date: Jan 22 2019
Description Date: May 14 2018
Descriptor: David Moore
NEON Plot ID: MLBS_009

Site ID: S2018VA071009
Pedon ID: S2018VA071009

Site Note:
Pedon Note: The soil survey staff entered the classification to the highest level we could in the field due to lack of data. Without mineralogy we cannot classify the pedon to the series level which is the reason taxon above the family was selected. The activity class can be populated once the lab analysis are conducted.

Lab Source ID: KSSL
Lab Pedon #: 18N1995

Soil Name as Described/Sampled: Series Not Designated
Classification: Fine-loamy, mesic Oxyaquic Hapludults

Soil Name as Correlated:
Classification:
Pedon Type: confirmation description
Pedon Purpose: research site
Taxon Kind: taxon above family

Pedon Type: confirmation description
Pedon Purpose: research site
Taxon Kind: taxon above family

Associated Soils:
Physiographic Division: Appalachian Highlands
Physiographic Province: Valley and Ridge Province
Physiographic Section: Middle section
State Physiographic Area:

Local Physiographic Area:
Geomorphic Setting: on mountain flank, center third of mountains on saddle
Upslope Shape: convex
Cross Slope Shape: linear
Particle Size Control Section: 42 to 92 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 7 cm.
argillic horizon 12 to 120 cm.
A--0 to 7 centimeters (0.0 to 2.8 inches); 10YR 2/3 (10YR 2/3) broken face channery loam; weak fine granular structure; very friable; many very fine roots throughout and many fine roots throughout; many very fine moderate-continuity irregular and many fine moderate-continuity irregular pores; flat subangular indurated 2 to 150-millimeter Sandstone fragments; very strongly acid, pH 5.0; clear smooth boundary. Lab sample # 18N06026

BA--7 to 12 centimeters (2.8 to 4.7 inches); 85 percent dark brown (7.5YR 3/3) broken face channery loam; 15 percent medium faint irregular (7.5YR 2.5/2) mottles; weak fine subangular blocky structure; friable; common very fine roots throughout and common fine roots throughout and few coarse roots throughout; many very fine moderate-continuity irregular and many fine moderate-continuity irregular pores; flat subangular indurated 2 to 150-millimeter Sandstone fragments and nonflat subrounded indurated 5 to 20-millimeter Sandstone fragments; very strongly acid, pH 5.0; clear smooth boundary. Lab sample # 18N06027

Bt1--12 to 42 centimeters (4.7 to 16.5 inches); dark brown (7.5YR 3/4) broken face very channery clay loam; weak medium subangular blocky structure; friable; few very fine roots throughout; common very fine moderate-continuity irregular and common fine moderate-continuity irregular pores; 30 percent distinct 7.5YR 3/6), moist, clay films on all faces of peds; flat subangular indurated 2 to 150-millimeter Sandstone fragments and nonflat subrounded indurated 5 to 20-millimeter Sandstone fragments; strongly acid, pH 5.5; gradual smooth boundary. Lab sample # 18N06028

Bt2--42 to 85 centimeters (16.5 to 33.5 inches); reddish brown (5YR 4/4) broken face very channery clay loam; moderate medium subangular blocky structure; friable; common very fine moderate-continuity irregular pores; 35 percent distinct 5YR 4/6), moist, clay films on all faces of peds; 15 percent fine prominent spherical weakly cemented iron-manganese nodules with sharp boundaries Throughout; nonflat subrounded indurated 5 to 20-millimeter Sandstone fragments and flat subangular indurated 2 to 150-millimeter Sandstone fragments and flat subangular noncemented 5 to 20-millimeter Charcoal fragments; strongly acid, pH 5.5; diffuse smooth boundary. Lab sample # 18N06029

Bt3--85 to 100 centimeters (33.5 to 39.4 inches); 85 percent yellowish red (5YR 4/6) broken face channery clay loam; 15 percent medium distinct irregular (2.5YR 5/8) mottles; moderate medium subangular blocky structure; friable; 40 percent distinct 5YR 4/4), moist, clay films on all faces of peds; flat subangular indurated 2 to 150-millimeter Calcareous sandstone fragments; strongly acid, pH 5.5; diffuse smooth boundary. Lab sample # 18N06030
Country: United States  
State: Virginia  
County: Giles  
MLRA: 128 -- Southern Appalachian Ridges and Valleys  
Soil Survey Area: 6-CLI -- Clinton, Tennessee VA606 -- Jefferson National Forest, Virginia  
Map Unit: 41D -- Berks-Weikert complex, 15 to 35 percent slopes  
Site Location:  
Quad Name: Interior, Virginia  
Std Latitude: 37.4323330  
Std Longitude: -80.5597500  
Latitude: 37 degrees 25 minutes 56.40 seconds north  
Longitude: 80 degrees 33 minutes 35.10 seconds west  
Datum: WGS84  
UTM Zone: 17  
UTM Easting: 538949 meters  
UTM Northing: 4142929 meters  
Primary Earth Cover: Tree cover  
Secondary Earth Cover: Hardwoods  
Existing Vegetation:  
Parent Material: colluvium derived from chert and/or residuum weathered from chert  
Bedrock Kind: Chert  
Bedrock Depth: 40 centimeters  
Bedrock Hardness: indurated  
Bedrock Fracture Interval:  
Surface Fragments:  
Description database: KSSL  

Soil Name as Described/Sampled: Series Not Designated  
Classification: Fine-loamy, mesic Lithic Dystrudepts  
Soil Name as Correlated:  
Classification:  
Pedon Type: confirmation description  
Pedon Purpose: research site  
Taxon Kind: taxon above family  
Associated Soils:  
Physiographic Division: Appalachian Highlands  
Physiographic Province: Valley and Ridge Province  
Physiographic Section: Middle section  
State Physiographic Area:  
Local Physiographic Area:  
Geomorphic Setting: on mountainflank, lower third of mountains on mountain slope  
Upslope Shape: linear  
Cross Slope Shape: convex  
Particle Size Control Section: 20 to 41 cm.  
Description origin: NASIS  
Diagnostic Features: ochric epipedon 2 to 11 cm.  
cambic horizon 11 to 40 cm.  
lithic contact 40 to 65 cm.  

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Oi--0 to 1 centimeters (0.0 to 0.4 inches); slightly decomposed plant material;.

Oa--1 to 2 centimeters (0.4 to 0.8 inches); highly decomposed plant material;.

A--2 to 11 centimeters (0.8 to 4.3 inches); dark brown (10YR 3/3) broken face gravelly loam; weak fine granular structure; very friable; many medium roots throughout and many fine roots throughout; 10 percent nonflat angular indurated 2 to 5-millimeter Chert fragments and 10 percent nonflat angular indurated 5 to 20-millimeter Chert fragments; abrupt wavy boundary. Lab sample # 18N06007

Bw1--11 to 27 centimeters (4.3 to 10.6 inches); light yellowish brown (10YR 6/4) broken face silt loam; friable; common medium roots throughout and common fine roots throughout and few coarse roots throughout; 5 percent nonflat angular indurated 2 to 5-millimeter Chert fragments; abrupt smooth boundary. Lab sample # 18N06008

Bw2--27 to 40 centimeters (10.6 to 15.7 inches); yellowish brown (10YR 5/4) broken face silt loam; moderate medium subangular blocky structure; friable; few medium roots throughout and few fine roots throughout and few coarse roots throughout; 5 percent nonflat angular indurated 2 to 5-millimeter Chert fragments; abrupt smooth boundary. Lab sample # 18N06009

R--40 to 65 centimeters (15.7 to 25.6 inches); indurated Chert bedrock;.
**PEDON DESCRIPTION -- NEON Site MLBS**

**Print Date:** Jan 22 2019  
**Description Date:** May 15 2018  
**Describer:** David Moore  
**NEON Plot ID:** MLBS_014

**Site ID:** S2018VA071014  
**Pedon ID:** S2018VA071014

**Site Note:**  
**Pedon Note:** The soil survey staff entered the classification to the highest level we could in the field due to lack of data. Without mineralogy we cannot classify the pedon to the series level which is the reason taxon above the family was selected. The activity class can be populated once the lab analysis are conducted. This is a field classification without mineralogy and lab data it is difficult to determine the full taxonomic classification. This pedon fits loosely into the Grimsely Soil Series.

**Lab Source ID:** KSSL  
**Lab Pedon #:** 18N1997  
**Soil Name as Described/Sampled:** Grimsley  
**Classification:** Loamy-skeletal, mesic Typic Hapludults

**Soil Name as Correlated:**

**Classification:**  
**Pedon Type:** confirmation description  
**Pedon Purpose:** research site  
**Taxon Kind:** taxon above family

**Associated Soils:**  
**Physiographic Division:** Appalachian Highlands  
**Physiographic Province:** Valley and Ridge Province  
**Physiographic Section:** Middle section  
**State Physiographic Area:**  
**Local Physiographic Area:**  
**Geomorphic Setting:** on mountainbase of mountains on mountain slope  
**Upslope Shape:** concave  
**Cross Slope Shape:** linear  
**Particle Size Control Section:** 19 to 69 cm.  
**Description origin:** NASIS

**Diagnostic Features:** ochric epipedon 0 to 12 cm.  
argillic horizon 12 to 62 cm.

**Country:** United States  
**State:** Virginia  
**County:** Giles  
**MLRA:** 128 -- Southern Appalachian Ridges and Valleys  
**Soil Survey Area:** 6-CLI -- Clinton, Tennessee  
VA606 -- Jefferson National Forest, Virginia  
**Map Unit:** 26C -- Jefferson loam, 3 to 15 percent slopes  
**Quad Name:** Interior, Virginia

**Std Latitude:** 37.4169444  
**Std Longitude:** -80.5576944

**Latitude:** 37 degrees 25 minutes 1.00 seconds north  
**Longitude:** 80 degrees 33 minutes 27.70 seconds west  
**Datum:** WGS84  
**UTM Zone:** 17  
**UTM Easting:** 539139 meters  
**UTM Northing:** 4141219 meters

**Primary Earth Cover:** Tree cover  
**Secondary Earth Cover:** Hardwoods  
**Existing Vegetation:**  
**Parent Material:** colluvium derived from sandstone  
**Bedrock Kind:**  
**Bedrock Depth:**  
**Bedrock Hardness:**  
**Bedrock Fracture Interval:**  
**Surface Fragments:**  
**Description database:** KSSL
Cont. Site ID: S2018VA071014

Pedon ID: S2018VA071014

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Oe--0 to 1 centimeters (0.0 to 0.4 inches); 85 percent dark brown (7.5YR 3/3) broken face moderately decomposed plant material; 15 percent medium faint irregular (7.5YR 2.5/2) mottles; . Lab sample # 18N06035

A--1 to 6 centimeters (0.4 to 2.4 inches); very channery loam; weak fine granular structure; very friable; many very fine roots throughout and many fine roots throughout; flat subangular indurated 2 to 150-millimeter Sandstone fragments; very strongly acid, pH 5.0, pH indicator solutions; gradual smooth boundary. Lab sample # 18N06036

BA--6 to 19 centimeters (2.4 to 7.5 inches); extremely channery loam; moderate medium granular and weak fine subangular blocky structure; friable; few very fine roots throughout and few medium roots throughout and common medium roots throughout; common very fine moderate-continuity irregular and common fine moderate-continuity irregular pores; flat subangular indurated 2 to 150-millimeter Sandstone fragments; very strongly acid, pH 5.0, pH indicator solutions; gradual smooth boundary. Lab sample # 18N06037

Bt1--19 to 36 centimeters (7.5 to 14.2 inches); very channery clay loam; moderate medium subangular blocky structure; friable; few very fine roots throughout and few medium roots throughout and few fine roots throughout; many very fine moderate-continuity irregular pores; 15 percent distinct clay films on all faces of peds; flat subangular indurated 2 to 150-millimeter Sandstone fragments; very strongly acid, pH 5.0, pH indicator solutions; diffuse smooth boundary. Lab sample # 18N06038

Bt2--36 to 69 centimeters (14.2 to 27.2 inches); extremely flaggy clay loam; strong medium subangular blocky, and strong coarse subangular blocky structure; friable; few very fine roots throughout and few medium roots throughout and few fine roots throughout and common coarse roots throughout; common very fine moderate-continuity irregular and common fine moderate-continuity irregular pores; flat subangular indurated 2 to 150-millimeter Sandstone fragments and flat subangular indurated 150 to 380-millimeter Sandstone fragments; very strongly acid, pH 5.0, pH indicator solutions; diffuse smooth boundary. Lab sample # 18N06039

Bt3--69 to 100 centimeters (27.2 to 39.4 inches); extremely flaggy clay loam; strong coarse subangular blocky structure; friable; few very fine roots throughout; 15 percent distinct 5YR 4/6), moist, clay films on all faces of peds; flat subangular indurated 2 to 150-millimeter Sandstone fragments and flat subangular indurated 150 to 380-millimeter Sandstone fragments; very strongly acid, pH 5.0, pH indicator solutions; diffuse boundary. Lab sample # 18N06040
PEDON DESCRIPTION -- NEON Site MLBS

Print Date: Jan 22 2019  
Description Date: May 18 2018  
Describer: Scott Aldridge  
NEON Plot ID: MLBS_019  

Site ID: S2018VA071019  
Pedon ID: S2018VA071019  

Country: United States  
State: Virginia  
County: Giles  
MLRA: 128 -- Southern Appalachian Ridges and Valleys  
Soil Survey Area: 6-CLI -- Clinton, Tennessee VA606 -- Jefferson National Forest, Virginia  
Map Unit: 28C -- Shelocta channery silt loam, 3 to 15 percent slopes  

Pit Location:  
Quad Name: Interior, Virginia  
Std Latitude: 37.4242220  
Std Longitude: -80.5513888  

Soil Name as Described/Sampled: Series Not Designated  
Classification: Fine-loamy, mesic Typic Hapludults  
Soil Name as Correlated:  
Classification:  
Pedon Type: confirmation description  
Pedon Purpose: research site  
Taxon Kind: taxon above family  

Soil Name as Correlated:  
Pedon Type: confirmation description  
Pedon Purpose: research site  
Taxon Kind: taxon above family  

Associated Soils:  
Physiographic Division: Appalachian Highlands  
Physiographic Province: Valley and Ridge Province  
Physiographic Section: Middle section  
State Physiographic Area:  
Local Physiographic Area:  
Geomorphic Setting: on mountainbase of mountains on mountain slope  
Upslope Shape: linear  
Cross Slope Shape: concave  
Particle Size Control Section: 26 to 61 cm.  
Description origin: NASIS  
Diagnostic Features: ochric epipedon 4 to 9 cm.  
argillic horizon 26 to 61 cm.  
lithic contact 61 to 86 cm.  

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Primary Earth Cover: Tree cover  
Secondary Earth Cover: Hardwoods  
Existing Vegetation:  
Parent Material: colluvium derived from interbedded sedimentary rock  
Bedrock Kind: Sandstone  
Bedrock Depth: 61 centimeters  
Bedrock Hardness: indurated  
Bedrock Fracture Interval:  
Surface Fragments:  
Description database: KSSL
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<th>MSAT (°C)</th>
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Oi--0 to 2 centimeters (0.0 to 0.8 inches); slightly decomposed plant material; .

Oa--2 to 4 centimeters (0.8 to 1.6 inches); highly decomposed plant material; .

A--4 to 9 centimeters (1.6 to 3.5 inches); dark yellowish brown (10YR 4/4) broken face silt loam; moderate medium granular structure; very friable; many medium roots throughout and many fine roots throughout and few coarse roots throughout; abrupt smooth boundary. Lab sample # 18N06013

BA--9 to 26 centimeters (3.5 to 10.2 inches); dark yellowish brown (10YR 4/6) broken face loam; weak fine subangular blocky structure; friable; common medium roots throughout and common fine roots throughout; clear smooth boundary. Lab sample # 18N06014

Bt--26 to 61 centimeters (10.2 to 24.0 inches); 98 percent yellowish brown (10YR 5/6) broken face clay loam; 2 percent medium distinct irregular (10YR 6/8) mottles; moderate medium subangular blocky structure; friable; few medium roots throughout and few fine roots throughout; 2 percent distinct clay films on vertical faces of peds; abrupt irregular boundary. Lab sample # 18N06015

R--61 to 86 centimeters (24.0 to 33.9 inches); indurated Sandstone bedrock; . Indurated sandstone bedrock at 61cm.
Site Note:
Pedon Note: The soil survey staff entered the classification to the highest level we could in the field due to lack of data. Without mineralogy we cannot classify the pedon to the series level which is the reason taxon above the family was selected. The activity class can be populated once the lab analysis are conducted. This is a field classification without mineralogy and lab data it is difficult to determine the full taxonomic classification. This pedon fits loosely into the Grimsley Soil Series.

Lab Source ID: KSSL
Lab Pedon #: 18N1994
Soil Name as Described/Sampled: Grimsley
Classification: Loamy-skeletal, mesic Typic Hapludults

Soil Name as Correlated:
Classification:
Pedon Type: confirmation description
Pedon Purpose: research site
Taxon Kind: taxon above family
Associated Soils:
Physiographic Division: Appalachian Highlands
Physiographic Province: Valley and Ridge Province
Physiographic Section: Middle section
State Physiographic Area:

Local Physiographic Area:
Geomorphic Setting: on mountaintop, center third of mountains on mountain slope
Upslope Shape: convex
Cross Slope Shape: convex
Particle Size Control Section: 20 to 70 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 20 cm.
argillic horizon 20 to 43 cm.
Oe--0 to 2 centimeters (0.0 to 0.8 inches); moderately decomposed plant material; . Lab sample # 18N06020

Ap1--2 to 11 centimeters (0.8 to 4.3 inches); dusky red (7.5R 3/3) broken face very gravelly loam; weak fine granular structure; very friable; common very fine roots throughout and few fine roots throughout and few coarse roots throughout; strongly acid, pH 5.5, pH indicator solutions; gradual smooth boundary. Lab sample # 18N06021

Ap2--11 to 20 centimeters (4.3 to 7.9 inches); dusky red (7.5R 3/4) broken face very gravelly loam; weak fine granular, and weak medium granular structure; very friable; common very fine roots throughout and few medium roots throughout and common fine roots throughout and few coarse roots throughout; common very fine moderate-continuity irregular pores; strongly acid, pH 5.5, pH indicator solutions; gradual smooth boundary. Lab sample # 18N06022

Bt1--20 to 37 centimeters (7.9 to 14.6 inches); strong brown (7.5YR 4/6) broken face very channery loam; weak fine subangular blocky, and weak medium subangular blocky structure; friable; common very fine roots throughout and few medium roots throughout and common fine roots throughout and few coarse roots throughout; common very fine moderate-continuity irregular and common fine moderate-continuity irregular pores; strongly acid, pH 5.5, pH indicator solutions; diffuse smooth boundary. Lab sample # 18N06023

Bt2--37 to 53 centimeters (14.6 to 20.9 inches); yellowish red (5YR 4/6) broken face extremely channery clay loam; weak fine subangular blocky, and moderate medium subangular blocky structure; friable; few very fine roots throughout and few medium roots throughout and few fine roots throughout; common very fine moderate-continuity irregular and common fine moderate-continuity irregular pores; very strongly acid, pH 5.0, pH indicator solutions; diffuse smooth boundary. Lab sample # 18N06024

Bt3--53 to 100 centimeters (20.9 to 39.4 inches); yellowish red (5YR 5/6) broken face very channery clay loam; friable; few very fine roots throughout and few medium roots throughout and few fine roots throughout; many very fine moderate-continuity irregular pores; very strongly acid, pH 5.0, pH indicator solutions. Lab sample # 18N06025
PEDON DESCRIPTION -- NEON Site MLBS

Print Date: Jan 22 2019
Description Date: May 8 2018
Describer: Scott Aldridge
NEON Plot ID: MLBS_061

Site ID: S2018VA071061
Pedon ID: S2018VA071061
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N1988
Soil Name as Described/Sampled: Series Not Designated
Classification: Fine-loamy, mesic Fluvaquentic Dystrudepts

Soil Name as Correlated:

Classification:
Pedon Type: confirmation description
Pedon Purpose: research site
Taxon Kind: taxon above family
Associated Soils: Bailegap, Cotaco, Lily
Physiographic Division: Appalachian Highlands
Physiographic Province: Valley and Ridge Province
Physiographic Section: Middle section
State Physiographic Area: 

Local Physiographic Area:
Geomorphic Setting: on mountainflank, center third of mountains on saddle
Upslope Shape: concave
Cross Slope Shape: linear
Particle Size Control Section: 25 to 91 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 6 to 14 cm.
cambic horizon 14 to 36 cm.
argillic horizon 36 to 91 cm.

Country: United States
State: Virginia
County: Giles
MLRA: 128 -- Southern Appalachian Ridges and Valleys
Soil Survey Area: 6-CLI -- Clinton, Tennessee
Map Unit: 12 -- Fluvaquents, nearly level
Pit Location:
Quad Name: Interior, Virginia
Std Latitude: 37.3764722
Std Longitude: -80.5200000

Latitude: 37 degrees 22 minutes 35.30 seconds north
Longitude: 80 degrees 31 minutes 12.00 seconds west
Datum: WGS84
UTM Zone: 17
UTM Easting: 542497 meters
UTM Northing: 4136745 meters

Primary Earth Cover: Tree cover
Secondary Earth Cover: Hardwoods
Existing Vegetation:
Parent Material: fine-loamy colluvium derived from sandstone
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL
Cont. Site ID: S2018VA071061

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Oe--0 to 2 centimeters (0.0 to 0.8 inches); slightly decomposed plant material; .

Oa--2 to 6 centimeters (0.8 to 2.4 inches); highly decomposed plant material; .

A--6 to 14 centimeters (2.4 to 5.5 inches); black (10YR 2/1) broken face mucky fine sandy loam; moderate medium granular structure; very friable; common medium roots throughout and common fine roots throughout; . Lab sample # 18N05999

AB--14 to 21 centimeters (5.5 to 8.3 inches); very dark grayish brown (10YR 3/2) broken face fine sandy loam; weak medium granular structure; very friable; few medium roots throughout and few fine roots throughout; . Lab sample # 18N06000

Bw1--21 to 30 centimeters (8.3 to 11.8 inches); brown (10YR 4/3) broken face loam; weak fine subangular blocky structure; friable; few fine roots throughout; . Lab sample # 18N06001

Bw2--30 to 36 centimeters (11.8 to 14.2 inches); yellowish brown (10YR 5/4) broken face loam; moderate fine subangular blocky structure; friable; few fine roots throughout; . Lab sample # 18N06002

Bt1--36 to 91 centimeters (14.2 to 35.8 inches); 60 percent yellowish brown (10YR 5/4) broken face clay loam; 10 percent medium faint irregular (10YR 4/4) and 10 percent fine faint irregular (10YR 6/3) and 20 percent medium prominent irregular (7.5YR 5/6) mottles; moderate fine subangular blocky structure; friable; common medium roots throughout and common coarse roots throughout; . Lab sample # 18N06003. Upon boring with a bucket auger, the soils team encountered a high rock fragment content at 91cm and could not bore past this depth.
PEDON DESCRIPTION -- NEON Site MLBS

Print Date: Jan 22 2019
Description Date: May 14 2018
Describer: Scott Aldridge
NEON Plot ID: MLBS_064

Country: United States
State: Virginia
County: Giles
MLRA: 128 -- Southern Appalachian Ridges and Valleys

Site ID: S2018VA071064
Pedon ID: S2018VA071064
Site Note:
Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 18N1989

Soil Name as Described/Sampled: Series Not Designated
Classification: Fine-loamy, mesic Typic Dystrudepts

Soil Name as Correlated:

Classification:
Pedon Type: confirmation description
Pedon Purpose: research site
Taxon Kind: taxon above family

Associated Soils: Bailegap, Cotaco, Lily
Physiographic Division: Appalachian Highlands
Physiographic Province: Valley and Ridge Province
Physiographic Section: Middle section
State Physiographic Area:

Local Physiographic Area:
Geomorphic Setting: on mountainflank, center third of mountains on saddle
Upslope Shape: linear
Cross Slope Shape: linear
Particle Size Control Section: 25 to 94 cm.
Description origin: NASIS

Diagnostic Features: ochric epipedon 8 to 11 cm.
cambic horizon 20 to 94 cm.

Latitude: 37 degrees 22 minutes 31.40 seconds north
Longitude: 80 degrees 31 minutes 14.20 seconds west
Datum: WGS84
UTM Zone: 17
UTM Easting: 542444 meters
UTM Northing: 4136625 meters

Primary Earth Cover: Tree cover
Secondary Earth Cover: Hardwoods

Existing Vegetation:
Parent Material: coarse-loamy colluvium derived from sandstone

Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL
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Oe--0 to 3 centimeters (0.0 to 1.2 inches); moderately decomposed plant material; .

Oa--3 to 8 centimeters (1.2 to 3.1 inches); highly decomposed plant material; .

A--8 to 11 centimeters (3.1 to 4.3 inches); very dark grayish brown (10YR 3/2) broken face fine sandy loam; weak medium granular structure; very friable, nonsticky, nonplastic; 5 percent nonflat angular indurated 2 to 5-millimeter Quartzite fragments; abrupt smooth boundary. Lab sample # 18N06004

AB--11 to 20 centimeters (4.3 to 7.9 inches); dark yellowish brown (10YR 4/4) broken face fine sandy loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; 5 percent nonflat angular indurated 2 to 5-millimeter Quartzite fragments; abrupt smooth boundary. Lab sample # 18N06005

Bw--20 to 94 centimeters (7.9 to 37.0 inches); 85 percent brown (7.5YR 4/4) broken face fine sandy loam; 15 percent medium distinct irregular (5YR 5/8) mottles; weak fine subangular blocky structure; friable, nonsticky, nonplastic; 12 percent nonflat angular indurated 10 to 12-millimeter Quartzite fragments; clear smooth boundary. Lab sample # 18N06006