PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 6 2016

Describer: Greg Taylor

NEON Plot ID: SERC_001

Site ID: S2016MD003001

Pedon ID: S2016MD003001

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 16N0801

Soil Name as Described/Sampled: Woodstown

Classification: Fine-loamy, mixed, active, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: research site

Taxon Kind: series

Associated Soils: Adelphia, Annapolis, Colemantown, Collington, Cumberstone, Deale, Donlonton, Holmdel, Shadyoak, Shrewsbury

Physiographic Division: Appalachian Highlands

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on backslope of riser of side slope of coastal plain
on backslope of riser of side slope of upland
on backslope of riser of side slope of fluviomarine terrace

Upslope Shape: convex

Cross Slope Shape: linear

Particle Size Control Section: 23 to 66 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 23 cm.
argillic horizon 23 to 66 cm.
aquic conditions 23 to 88 cm.
redox depletions with chroma 2 or less 41 to 66 cm.
redox concentrations 41 to 88 cm.
reduced matrix 66 to 88 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: AdB -- Adelphia-Holmdel complex, 2 to 5 percent slopes

Pit Location: Plot ID SERC_001 Distance: 11.0 meters Compass Bearing: 225 degrees Reference Point: from the 20x20 SW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sampled

Quad Name: Deale, Maryland

Std Latitude: 38.8684333

Std Longitude: -76.5338139

Latitude: 38 degrees 52 minutes 6.36 seconds north

Longitude: 76 degrees 32 minutes 1.73 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 366935 meters

UTM Northing: 4303295 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: silty eolian and/or silty fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016MD003001 **Pedon ID:** S2016MD003001

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
3.0	3.0	80						moderately well		

A--0 to 8 centimeters (0.0 to 3.1 inches); dark brown (10YR 3/3) fine sandy loam; weak fine subangular blocky structure; friable, nonsticky, nonplastic; very fine roots throughout and medium roots throughout and fine roots throughout and coarse roots throughout; clear smooth boundary. Lab sample # 16N03559

BA--8 to 23 centimeters (3.1 to 9.1 inches); brown (10YR 4/3) fine sandy loam; 16 percent clay; weak medium granular structure; friable, nonsticky, nonplastic; very fine roots throughout and medium roots throughout and fine roots throughout; very fine vesicular pores; 3 percent glauconite pellets throughout; clear smooth boundary. Lab sample # 16N03560

Bt1--23 to 41 centimeters (9.1 to 16.1 inches); dark yellowish brown (10YR 4/6) loam; 25 percent clay; moderate medium subangular blocky structure; firm, slightly sticky, slightly plastic; very fine roots throughout and medium roots throughout; very fine vesicular pores; 5 percent fine irregular 10YR 5/3), moist, iron depletions Throughout; 3 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; gradual wavy boundary. Lab sample # 16N03561

Bt2--41 to 66 centimeters (16.1 to 26.0 inches); brown (7.5YR 4/4) clay loam; 28 percent clay; 3 percent coarse spherical (2.5YR4) and 10 percent very fine irregular (10YR 4/2) mottles; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; very fine roots throughout and fine roots throughout; very fine vesicular pores; 15 percent faint 10YR 4/6), moist, clay films on all faces of peds; 15 percent irregular 7.5YR 4/6), moist, masses of oxidized iron Throughout and 30 percent irregular 2.5Y 3/2), moist, iron depletions Throughout; 10 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; gradual wavy boundary. Lab sample # 16N03562

BCtg--66 to 88 centimeters (26.0 to 34.6 inches); light brownish gray (2.5Y 6/2) silt loam; 23 percent clay; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; very fine roots throughout and medium roots throughout and fine roots throughout; 15 percent faint 2.5Y 5/2), moist, clay films on all faces of peds; 5 percent irregular 5YR 5/6), moist, masses of oxidized iron Throughout and 10 percent irregular 7.5YR 5/6), moist, masses of oxidized iron Throughout; 20 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; clear wavy boundary. Lab sample # 16N03563

Ab--88 to 100 centimeters (34.6 to 39.4 inches); very dark grayish brown (2.5Y 3/2) silt loam; 28 percent clay; moderate thin platy structure; firm, slightly sticky, slightly plastic; very fine roots throughout; 15 percent faint 2.5Y 6/3), moist, clay films on all faces of peds; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N03564

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 5 2016

Describer: Greg Taylor

NEON Plot ID: SERC_004

Site ID: S2016MD003004

Pedon ID: S2016MD003004

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 16N0802

Soil Name as Described/Sampled: Collington

Classification: Fine-loamy, mixed, active, mesic Typic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: research site

Taxon Kind: series

Associated Soils: Adelphia, Annapolis, Colemantown, Dodon, Donlonton, Holmdel, Marr, Shrewsbury, Westphalia, Wist

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on backslope of interfluve of coastal plain
on backslope of interfluve of upland
on backslope of interfluve of hill
on backslope of interfluve of interfluve

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section: 13 to 63 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 13 cm.
argillic horizon 13 to 67 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: CRD -- Collington and Annapolis soils, 10 to 15 percent slopes

Pit Location: Plot ID SERC_004 Distance: 5.9 meters Compass Bearing: 350 degrees Reference Point: from the 20x20 NE marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sampled

Quad Name: Deale, Maryland

Std Latitude: 38.8726000

Std Longitude: -76.5539000

Latitude: 38 degrees 52 minutes 21.36 seconds north

Longitude: 76 degrees 33 minutes 14.04 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 365201 meters

UTM Northing: 4303786 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: glauconite bearing eolian and/or fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016MD003004 **Pedon ID:** S2016MD003004

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
18.0	7.0	250						well		

Ap--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; weak medium subangular blocky structure; friable, nonsticky, nonplastic; very fine roots throughout and medium roots throughout and coarse roots throughout; very fine vesicular pores; moderately acid, pH 5.8, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N03565

Bt1--13 to 43 centimeters (5.1 to 16.9 inches); dark brown (7.5YR 3/4) clay loam; 30 percent clay; weak coarse subangular blocky structure; firm, moderately sticky, slightly plastic; very fine roots throughout and medium roots throughout and coarse roots throughout; very fine vesicular pores; 45 percent distinct 10YR 4/6), moist, clay films on all faces of peds; 15 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; gradual wavy boundary. Lab sample # 16N03566

Bt2--43 to 67 centimeters (16.9 to 26.4 inches); brown (7.5YR 4/4) sandy clay loam; 23 percent clay; weak medium subangular blocky structure; friable, slightly sticky, nonplastic; medium roots throughout and fine roots throughout; very fine vesicular pores; 10 percent distinct 10YR 4/6), moist, clay films on vertical faces of peds; 20 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; gradual wavy boundary. Lab sample # 16N03567

BC--67 to 100 centimeters (26.4 to 39.4 inches); 80 percent grayish brown (2.5Y 5/2) and 20 percent dark brown (7.5YR 3/4) fine sandy loam; weak medium subangular blocky structure; very friable, nonsticky, nonplastic; very fine roots throughout and fine roots throughout; medium tubular pores; 50 percent glauconite pellets throughout and 15 percent glauconite pellets throughout; moderately acid, pH 5.6, pH indicator solutions. Lab sample # 16N03568

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 7 2016

Describer: Dean Shields, Carl Robinette, Phil King, Greg Taylor, Chad Ferguson, Ben Marshall, Mark Van Lear, and Rob Tunstead

NEON Plot ID: SERC_006

Site ID: S2016MD003006

Pedon ID: S2016MD003006

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #:

Soil Name as Described/Sampled: Adelphia

Classification: Fine-loamy, mixed, active, nonacid, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: representative pedon for component

Pedon Purpose: ecological site data

Taxon Kind: series

Associated Soils: Annapolis, Collington, Donlonton

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on shoulder of riser of coastal plain
on shoulder of riser of fluviomarine terrace

Upslope Shape: linear

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 100 cm.
aquic conditions 52 to 100 cm.
redox concentrations 52 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: AsC -- Annapolis fine sandy loam, 5 to 10 percent slopes

Pit Location: Plot ID SERC_006 Distance: 8.7 meters Compass Bearing: 28 degrees Reference Point: from the 20x20 NE marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sampled Sampled soil pit location was 8.7 meters from the inner 20 meter northeast corner stake / flag pole (1 orange and 1 blue) that was pre-located by NEON personnel. Azimuth from the 20 meter NE flag to the soil pit was 28 degrees (north-northeast).

Quad Name: South River, Maryland

Std Latitude: 38.8812167

Std Longitude: -76.5470889

Latitude: 38 degrees 52 minutes 52.38 seconds north

Longitude: 76 degrees 32 minutes 49.52 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 365808 meters

UTM Northing: 4304733 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: fine-loamy fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA03_Raleigh

Cont. Site ID: S2016MD003006 **Pedon ID:** S2016MD003006

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	3.0	160						moderately well		

A--0 to 7 centimeters (0.0 to 2.8 inches); dark brown (10YR 3/3) interior loam, grayish brown (10YR 5/2) interior, dry; 36 percent sand; 13 percent clay; weak medium subangular blocky structure; friable, slightly sticky, nonplastic; very fine roots throughout and medium roots throughout and fine roots throughout; slightly acid, pH 6.2, pH indicator solutions; abrupt smooth boundary.

Ap--7 to 20 centimeters (2.8 to 7.9 inches); brown (10YR 4/3) interior loam, brown (10YR 5/3) interior, dry; 17 percent clay; weak medium subangular blocky structure; friable, slightly sticky, nonplastic; very fine roots throughout and medium roots throughout and fine roots throughout; moderately acid, pH 5.6, pH indicator solutions; clear smooth boundary.

Bt1--20 to 52 centimeters (7.9 to 20.5 inches); dark yellowish brown (10YR 4/6) interior loam; 21 percent clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; very fine roots throughout and fine roots throughout; strongly acid, pH 5.3, pH indicator solutions; clear wavy boundary.

Bt2--52 to 100 centimeters (20.5 to 39.4 inches); dark yellowish brown (10YR 4/6) interior loam; 23 percent clay; moderate medium subangular blocky structure; firm, slightly sticky, nonplastic; very fine roots throughout and fine roots throughout; 7 percent medium faint irregular 7.5YR 4/6), moist, iron-manganese masses with clear boundaries Throughout and 10 percent medium distinct irregular 10YR 5/3), moist, iron depletions with clear boundaries Throughout; strongly acid, pH 5.1, pH indicator solutions.

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017
Description Date: Apr 19 2016
Describer: Dean Shields
NEON Plot ID: SERC_007
Site ID: S2016MD003007

Pedon ID: S2016MD003007

Site Note:

Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0804
Soil Name as Described/Sampled: Donlonton
Classification: Fine-loamy, glauconitic, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils: Adelphia, Annapolis, Colemantown, Collington, Dodon, Holmdel, Marr, Shrewsbury, Westphalia, Wist
Physiographic Division: Atlantic Plain
Physiographic Province: Coastal Plain
Physiographic Section: Embayed section
State Physiographic Area:

Local Physiographic Area: SERC
Geomorphic Setting: on shoulder of riser of fluviomarine terrace on shoulder of riser of coastal plain
Upslope Shape: linear
Cross Slope Shape: convex
Particle Size Control Section: 29 to 75 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 29 cm.
redox concentrations 29 to 100 cm.
argillic horizon 29 to 75 cm.
aquic conditions 29 to 100 cm.
redox depletions with chroma 2 or less 58 to 100 cm.

Country: United States
State: Maryland
County: Anne Arundel
MLRA: 149A -- Northern Coastal Plain
Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey
Map Unit: AsB -- Annapolis fine sandy loam, 2 to 5 percent slopes
Pit Location: Plot ID SERC_007 No plot marker found Distance: meters Compass Bearing: degrees Reference Point: from the marker Measurement Location: to the pit face that was sampled Remarks: Locate use Latitude 38 52 25.8871 Longitude 76 32 23.5895 for pit location; flagged with yellow orange or pink pin flag marking pit face sampled
Quad Name: Deale, Maryland
Std Latitude: 38.8738556
Std Longitude: -76.5398833

Latitude: 38 degrees 52 minutes 25.88 seconds north
Longitude: 76 degrees 32 minutes 23.58 seconds west
Datum: WGS84
UTM Zone: 18
UTM Easting: 366416 meters
UTM Northing: 4303903 meters

Primary Earth Cover: Crop cover
Secondary Earth Cover: Row crop
Existing Vegetation:
Parent Material: loamy glauconitic fluviomarine deposits
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016MD003007 **Pedon ID:** S2016MD003007

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	3.0	240						moderately well		

Ap--0 to 29 centimeters (0.0 to 11.4 inches); brown (10YR 4/3) sandy clay loam, light olive brown (2.5Y 5/3), dry; 22 percent clay; weak medium subangular blocky, and moderate medium granular structure; very firm, slightly sticky, nonplastic; very fine roots throughout; 25 percent glauconite pellets throughout; slightly acid, pH 6.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N03573

Bt1--29 to 58 centimeters (11.4 to 22.8 inches); yellowish brown (10YR 5/6) clay loam; 32 percent clay; strong coarse subangular blocky structure; friable; very fine roots throughout; 35 percent distinct 10YR 4/3), moist, clay films on all faces of peds; 5 percent irregular 2.5Y 6/3), moist, iron depletions and 10 percent irregular 7.5YR 5/6), moist, masses of oxidized iron; 25 percent glauconite pellets throughout; moderately acid, pH 5.8, pH indicator solutions; clear smooth boundary. Lab sample # 16N03574

Bt2--58 to 75 centimeters (22.8 to 29.5 inches); yellowish brown (10YR 5/4) clay loam; 30 percent clay; strong coarse subangular blocky structure; friable; very fine roots throughout; 25 percent distinct 5YR 4/4), moist, clay films on all faces of peds and 25 percent distinct 10YR 4/3), moist, clay films on all faces of peds; 5 percent irregular 2.5Y 6/2), moist, iron depletions and 15 percent irregular 5YR 4/6), moist, masses of oxidized iron; 25 percent glauconite pellets throughout; 2 percent nonflat rounded strongly cemented 25 to 30-millimeter Quartz fragments; strongly acid, pH 5.4, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N03575

BCt--75 to 100 centimeters (29.5 to 39.4 inches); pale brown (10YR 6/3) loam; 23 percent clay; strong medium subangular blocky structure; friable; very fine roots throughout; 10 percent distinct 5YR 4/4), moist, clay films on all faces of peds and 10 percent distinct 10YR 4/3), moist, clay films on all faces of peds; 10 percent irregular 10YR 5/3), moist, iron depletions with clear boundaries and 10 percent irregular 7.5YR 4/6), moist, iron-manganese masses with clear boundaries; 40 percent glauconite pellets throughout; 10 percent nonflat rounded strongly cemented 2 to 5-millimeter Quartz fragments; strongly acid, pH 5.2, pH indicator solutions. Lab sample # 16N03576

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 7 2016

Describer: Phil King, Chad Ferguson, Greg Taylor, Ben Marshall, Dave Verdone, Mark Van Lear, Dean Shields and Rob Tunstead

NEON Plot ID: SERC_009

Site ID: S2016MD003009

Pedon ID: S2016MD003009

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #:

Soil Name as Described/Sampled: Marr

Classification: Fine-loamy, siliceous, semiactive, mesic Oxyaquic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: taxadjunct to the series

Pedon Purpose: ecological site data

Taxon Kind: taxadjunct

Associated Soils: Dodon, Piccowaxen

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on backslope of side slope of coastal plain on backslope of side slope of interfluve

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section: 56 to 103 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 25 cm.
argillic horizon 56 to 100 cm.
redox concentrations 56 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: MaD -- Marr-Dodon complex, 10 to 15 percent slopes

Pit Location: Plot ID SERC_009 Distance: 8.6 meters Compass Bearing: 220 degrees Reference Point: from the 20x20 SW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sampled

Quad Name: South River, Maryland

Std Latitude: 38.8974056

Std Longitude: -76.5615472

Latitude: 38 degrees 53 minutes 50.66 seconds north

Longitude: 76 degrees 33 minutes 41.57 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 364584 meters

UTM Northing: 4306551 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: fine-loamy fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA03_Raleigh

Cont. Site ID: S2016MD003009 **Pedon ID:** S2016MD003009

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
14.0	14.0	240						moderately well		

A--0 to 14 centimeters (0.0 to 5.5 inches); very dark gray (10YR 3/1) interior fine sandy loam, grayish brown (10YR 5/2) interior, dry; 7 percent clay; weak fine granular parts to weak fine subangular blocky structure; very friable; very fine roots throughout and medium roots throughout and fine roots throughout and coarse roots throughout; neutral, pH 6.8, pH indicator solutions; clear smooth boundary.

Ap--14 to 25 centimeters (5.5 to 9.8 inches); very dark grayish brown (10YR 3/2) interior fine sandy loam, pale brown (10YR 6/3) interior, dry; 11 percent clay; weak medium subangular blocky structure; very friable; very fine roots throughout and medium roots throughout and fine roots throughout; moderately acid, pH 5.8, pH indicator solutions; clear wavy boundary.

BA--25 to 39 centimeters (9.8 to 15.4 inches); dark yellowish brown (10YR 4/4) interior fine sandy loam; 12 percent clay; weak medium subangular blocky structure; very friable; very fine roots throughout and medium roots throughout and fine roots throughout and coarse roots throughout; moderately acid, pH 5.6, pH indicator solutions; clear wavy boundary.

BE--39 to 56 centimeters (15.4 to 22.0 inches); dark yellowish brown (10YR 4/6) interior fine sandy loam; 15 percent clay; weak medium subangular blocky structure; friable; very fine roots throughout and fine roots throughout; 15 percent faint 10YR 4/4), moist, clay films on all faces of peds; strongly acid, pH 5.2, pH indicator solutions; clear wavy boundary.

Bt--56 to 100 centimeters (22.0 to 39.4 inches); strong brown (7.5YR 4/6) interior loam; 23 percent clay; moderate medium subangular blocky structure; friable; very fine roots throughout and fine roots throughout; 15 percent distinct 10YR 4/4), moist, clay films on all faces of peds; 5 percent medium prominent irregular 10YR 6/3), moist, iron depletions Throughout and 10 percent medium faint irregular 5YR 4/6), moist, iron-manganese masses Throughout; strongly acid, pH 5.2, pH indicator solutions.

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 8 2016

Describer: Mark Van Lear, Ben Marshall and Dean Shields

NEON Plot ID: SERC_010

Site ID: S2016MD003010

Pedon ID: S2016MD003010

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #:

Soil Name as Described/Sampled: Wist

Classification: Fine-loamy, mixed, subactive, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: taxadjunct to the series

Pedon Purpose: ecological site data

Taxon Kind: taxadjunct

Associated Soils: Adelphia, Collington

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on footslope of base slope of coastal plain on footslope of base slope of hillslope

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 49 to 99 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 27 cm.
argillic horizon 49 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: CoC -- Collington-Wist complex, 5 to 10 percent slopes

Pit Location: Plot ID SERC_010 Distance: 17.1 meters Compass Bearing: 333 degrees Reference Point: from the 20x20 NW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sample Sampled soil pit location was 17 meters from the southwest inner 20 meter flag pole (1 orange and 1 blue) that was pre-located by NEON personnel. Azimuth from the 20 meter flag to the soil pit was 344 degrees (northwest).

Quad Name: South River, Maryland

Std Latitude: 38.9096389

Std Longitude: -76.5464722

Latitude: 38 degrees 54 minutes 34.70 seconds north

Longitude: 76 degrees 32 minutes 47.30 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 365915 meters

UTM Northing: 4307886 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: fine-loamy fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA03_Raleigh

Cont. Site ID: S2016MD003010 **Pedon ID:** S2016MD003010

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
7.0	110.0	194						well		

A--0 to 11 centimeters (0.0 to 4.3 inches); very dark grayish brown (10YR 3/2) interior fine sandy loam; 10 percent clay; moderate medium granular structure; very friable, nonsticky, nonplastic; medium roots throughout and fine roots throughout; neutral, pH 6.6, pH indicator solutions; clear smooth boundary.

Ap--11 to 27 centimeters (4.3 to 10.6 inches); brown (10YR 4/3) interior fine sandy loam; 12 percent clay; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; medium roots throughout and coarse roots throughout; slightly acid, pH 6.2, pH indicator solutions; clear smooth boundary.

BE--27 to 49 centimeters (10.6 to 19.3 inches); dark yellowish brown (10YR 4/4) interior sandy loam; 10 percent clay; weak medium subangular blocky structure; very friable, nonsticky, nonplastic; fine roots throughout; 3 percent coarse prominent cylindrical 2.5YR 4/8), moist, iron-manganese masses with sharp boundaries Throughout; moderately acid, pH 6.0, pH indicator solutions; clear wavy boundary.

Bt1--49 to 78 centimeters (19.3 to 30.7 inches); yellowish brown (10YR 5/4) interior sandy loam; 15 percent clay; weak medium subangular blocky structure; very friable, slightly sticky, slightly plastic; fine roots throughout; 15 percent faint 10YR 4/4), moist, clay films on all faces of peds; slightly acid, pH 6.2, pH indicator solutions; clear wavy boundary.

Bt2--78 to 100 centimeters (30.7 to 39.4 inches); yellowish brown (10YR 5/4) interior clay loam; 27 percent clay; moderate coarse subangular blocky structure; friable, moderately sticky, moderately plastic; fine roots throughout; 25 percent distinct 7.5YR 4/4), moist, clay films on all faces of peds; 5 percent medium prominent irregular 7.5YR 5/8), moist, iron-manganese masses with clear boundaries Throughout and 15 percent medium distinct irregular 10YR 6/2), moist, iron depletions with clear boundaries Throughout; 10 percent fine glauconite pellets throughout; moderately acid, pH 5.6, pH indicator solutions.

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 6 2016

Describer: Phil King

NEON Plot ID: SERC_011

Site ID: S2016MD003011

Pedon ID: S2016MD003011

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 16N0807

Soil Name as Described/Sampled: Sassafras

Classification: Fine-loamy, siliceous, semiactive, mesic Typic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: research site

Taxon Kind: series

Associated Soils: Adelphia, Annapolis, Colemantown, Collington, Donlonton, Holmdel, Marr, Westphalia, Wist

Physiographic Division: Appalachian Highlands

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on shoulder of interfluve of coastal plain
on shoulder of interfluve of upland
on shoulder of interfluve of hill
on shoulder of interfluve of interfluve

Upslope Shape: convex

Cross Slope Shape: linear

Particle Size Control Section: 40 to 90 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 40 cm.
argillic horizon 40 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: MaD -- Marr-Dodon complex, 10 to 15 percent slopes

Pit Location: Plot ID SERC_011 Distance: 16.3 meters Compass Bearing: 333 degrees Reference Point: from the 20x20 NW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sampled

Quad Name: South River, Maryland

Std Latitude: 38.8985889

Std Longitude: -76.5511889

Latitude: 38 degrees 53 minutes 54.92 seconds north

Longitude: 76 degrees 33 minutes 4.28 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 365485 meters

UTM Northing: 4306667 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: loamy fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016MD003011 **Pedon ID:** S2016MD003011

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	22.0	14						well		

A--0 to 9 centimeters (0.0 to 3.5 inches); very dark grayish brown (10YR 3/2) loam; 13 percent clay; strong fine granular structure; very friable; very fine roots throughout and fine roots throughout; neutral, pH 6.7, pH indicator solutions; clear wavy boundary. Lab sample # 16N03587

Ap--9 to 29 centimeters (3.5 to 11.4 inches); dark yellowish brown (10YR 3/4) sandy loam; 12 percent clay; weak medium subangular blocky, and weak fine subangular blocky structure; friable; very coarse roots throughout and coarse roots throughout; slightly acid, pH 6.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N03588

BE--29 to 40 centimeters (11.4 to 15.7 inches); brown (7.5YR 4/4) sandy loam; 14 percent clay; moderate medium subangular blocky structure; friable; many medium roots throughout and many fine roots throughout; moderately acid, pH 5.8, pH indicator solutions; clear wavy boundary. Lab sample # 16N03589

Bt1--40 to 68 centimeters (15.7 to 26.8 inches); strong brown (7.5YR 4/6) sandy loam; 18 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; friable; many medium roots and many fine roots; 20 percent distinct clay films on all faces of peds; moderately acid, pH 5.6, pH indicator solutions; clear wavy boundary. Lab sample # 16N03590

Bt2--68 to 100 centimeters (26.8 to 39.4 inches); strong brown (7.5YR 4/6) sandy clay loam; 22 percent clay; moderate coarse subangular blocky structure; friable; common fine roots; 20 percent distinct clay films on vertical faces of peds; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N03591

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 5 2016

Describer: Greg Taylor

NEON Plot ID: SERC_012

Site ID: S2016MD003012

Pedon ID: S2016MD003012

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 16N0808

Soil Name as Described/Sampled: Collington

Classification: Fine-loamy, mixed, active, mesic Typic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: research site

Taxon Kind: series

Associated Soils: Adelphia, Annapolis, Colemantown, Collington, Dodon, Donlonton, Holmdel, Westphalia, Wist

Physiographic Division: Appalachian Highlands

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on backslope of side slope of coastal plain
on backslope of side slope of upland
on backslope of side slope of hill

Upslope Shape: convex

Cross Slope Shape: linear

Particle Size Control Section: 34 to 84 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 34 cm.
argillic horizon 34 to 93 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: CSE -- Collington, Wist, and Westphalia soils, 15 to 25 percent slopes

Pit Location: PLot ID SERC_012 Distance: 4.15 meters Compass Bearing: 162 degrees Reference Point: from the 20x20 SW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sampled

Quad Name: South River, Maryland

Std Latitude: 38.8785778

Std Longitude: -76.5611583

Latitude: 38 degrees 52 minutes 42.88 seconds north

Longitude: 76 degrees 33 minutes 40.17 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 364582 meters

UTM Northing: 4304461 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: glauconite bearing eolian and/or fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016MD003012 **Pedon ID:** S2016MD003012

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
33.0	27.0	220						well		

Ap--0 to 21 centimeters (0.0 to 8.3 inches); very dark grayish brown (10YR 3/2) fine sandy loam; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; very fine roots throughout and medium roots throughout and fine roots throughout and coarse roots throughout; strongly acid, pH 5.4, pH indicator solutions; clear smooth boundary. Lab sample # 16N03592

BE--21 to 34 centimeters (8.3 to 13.4 inches); yellowish brown (10YR 5/4) fine sandy loam; weak medium subangular blocky structure; very friable, nonsticky, nonplastic; very fine roots throughout and medium roots throughout and fine roots throughout; very fine vesicular pores; 3 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; gradual wavy boundary. Lab sample # 16N03593

Bt1--34 to 70 centimeters (13.4 to 27.6 inches); strong brown (7.5YR 5/6) clay loam; 33 percent clay; moderate medium subangular blocky structure; firm, moderately sticky, moderately plastic; medium roots throughout and fine roots throughout; very fine vesicular pores; 3 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; gradual wavy boundary. Lab sample # 16N03594

Bt2--70 to 93 centimeters (27.6 to 36.6 inches); strong brown (7.5YR 5/6) clay loam; 35 percent clay; 3 percent coarse spherical (2.5YR4) and 10 percent very fine irregular (10YR 4/2) mottles; moderate medium subangular blocky structure; firm, slightly sticky, nonplastic; very coarse roots throughout and medium roots throughout; very fine vesicular pores; 10 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; clear wavy boundary. Lab sample # 16N03595

BCt--93 to 100 centimeters (36.6 to 39.4 inches); 80 percent strong brown (7.5YR 5/6) and 20 percent 10YR 2.5/1 (10YR 2.5/1) very gravelly sandy clay loam; moderate medium subangular blocky structure; friable, slightly sticky, nonplastic; medium roots throughout; 20 percent glauconite pellets throughout; 35 percent nonflat subrounded strongly cemented 2 to 76-millimeter unspecified fragments; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N03596

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 19 2016

Describer: Dean Shields

NEON Plot ID: SERC_013

Site ID: S2016MD003013

Pedon ID: S2016MD003013

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 16N0809

Soil Name as Described/Sampled: Donlonton

Classification: Fine-loamy, glauconitic, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: research site

Taxon Kind: series

Associated Soils: Adelphia, Annapolis, Colemantown, Collington, Dodon, Holmdel, Marr, Shrewsbury, Westphalia, Wist

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on backslope of side slope of coastal plain
on backslope of side slope of hillslope

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section: 10 to 60 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 10 cm.
argillic horizon 10 to 68 cm.
aquic conditions 34 to 100 cm.
redox concentrations 34 to 100 cm.
redox depletions with chroma 2 or less 68 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: SsA -- Shrewsbury loam, 0 to 2 percent slopes

Pit Location: Plot ID SERC_013 Distance: 11.2 meters Compass Bearing: 170 degrees Reference Point: from the 20x20 SE marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag marking pit face sampled PDOP 2.3

Quad Name: Deale, Maryland

Std Latitude: 38.8716667

Std Longitude: -76.5442278

Latitude: 38 degrees 52 minutes 18.00 seconds north

Longitude: 76 degrees 32 minutes 39.22 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 366038 meters

UTM Northing: 4303669 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: loamy glauconitic fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016MD003013 **Pedon ID:** S2016MD003013

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	4.0	315						moderately well		

A--0 to 10 centimeters (0.0 to 3.9 inches); 50 percent very dark grayish brown (10YR 3/2) and 50 percent brown (10YR 4/3) loam; 23 percent clay; moderate medium granular parts to weak fine subangular blocky structure; friable, nonsticky, nonplastic; very fine roots throughout and medium roots throughout; 10 percent glauconite pellets; strongly acid, pH 5.4, pH indicator solutions; clear wavy boundary. Lab sample # 16N03597

Bt1--10 to 34 centimeters (3.9 to 13.4 inches); dark yellowish brown (10YR 4/4) loam; 25 percent clay; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; very fine roots throughout and very coarse roots throughout and medium roots throughout; 15 percent faint 10YR 3/4), moist, clay films on all faces of peds; 25 percent glauconite pellets; strongly acid, pH 5.4, pH indicator solutions; clear smooth boundary. Lab sample # 16N03598

Bt2--34 to 68 centimeters (13.4 to 26.8 inches); dark yellowish brown (10YR 4/4) sandy clay loam; 25 percent clay; strong coarse subangular blocky structure; friable, moderately sticky, moderately plastic; very coarse roots throughout and fine roots throughout; 70 percent prominent 10YR 4/6), moist, clay films on all faces of peds; 10 percent medium irregular 10YR 5/3), moist, iron depletions and 10 percent medium irregular 10YR 5/6), moist, masses of oxidized iron; 50 percent glauconite pellets; strongly acid, pH 5.2, pH indicator solutions; clear wavy boundary. Lab sample # 16N03599

BCt--68 to 100 centimeters (26.8 to 39.4 inches); 70 percent light yellowish brown (2.5Y 6/3) and 30 percent light olive brown (2.5Y 5/3) loam; 21 percent clay; strong coarse subangular blocky structure; firm, slightly sticky, slightly plastic; very coarse roots throughout and fine roots throughout; 40 percent faint 10YR 4/3), moist, clay films on all faces of peds; 5 percent medium irregular 10YR 5/2), moist, iron depletions and 10 percent medium irregular 10YR 3/6), moist, masses of oxidized iron and 10 percent jarosite masses; 70 percent glauconite pellets; strongly acid, pH 5.2, pH indicator solutions. Lab sample # 16N03600

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 19 2016

Describer: Chris Seitz, Phil King, Dave Verdone, and Carl Robinette

NEON Plot ID: SERC_014

Site ID: S2016MD003014

Pedon ID: S2016MD003014

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #:

Soil Name as Described/Sampled: Donlonton

Classification: Fine-loamy, glauconitic, semiactive, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: ecological site data

Taxon Kind: series

Associated Soils: Annapolis, Colemantown

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on tread of fluviomarine terrace
on tread of coastal plain

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 41 to 82 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 25 cm.
aquic conditions 25 to 100 cm.
redox depletions with chroma 2 or less 25 to 100 cm.
argillic horizon 41 to 82 cm.
redox concentrations 41 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: AdB -- Adelphia-Holmdel complex, 2 to 5 percent slopes

Pit Location: Plot ID SERC_014 Distance: 9.5 meters Compass Bearing: 180 degrees Reference Point: from the 40x40 NW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag marking pit face sampled

Quad Name: South River, Maryland

Std Latitude: 38.8758610

Std Longitude: -76.5413610

Latitude: 38 degrees 52 minutes 33.10 seconds north

Longitude: 76 degrees 32 minutes 28.90 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 366294 meters

UTM Northing: 4304130 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: glauconitic fine-loamy fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA03_Raleigh

Cont. Site ID: S2016MD003014 **Pedon ID:** S2016MD003014

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	2.0	320						moderately well		

A--0 to 14 centimeters (0.0 to 5.5 inches); very dark grayish brown (10YR 3/2) interior fine sandy loam, grayish brown (10YR 5/2) interior, dry; 6 percent clay; strong fine granular structure; very friable, nonsticky, nonplastic; medium roots throughout and fine roots throughout and coarse roots throughout; strongly acid, pH 5.4, pH indicator solutions; clear smooth boundary.

Ap--14 to 25 centimeters (5.5 to 9.8 inches); dark brown (10YR 3/3) interior fine sandy loam, pale brown (10YR 6/3) interior, dry; 6 percent clay; moderate fine subangular blocky structure; very friable, nonsticky, nonplastic; medium roots throughout and fine roots throughout and coarse roots throughout; strongly acid, pH 5.4, pH indicator solutions; clear smooth boundary.

BE--25 to 41 centimeters (9.8 to 16.1 inches); olive brown (2.5Y 4/3) interior fine sandy loam; 15 percent clay; moderate medium subangular blocky structure; friable, slightly sticky, moderately plastic; medium roots throughout and fine roots throughout and coarse roots throughout; 5 percent fine distinct irregular 2.5Y 5/2), moist, iron depletions with clear boundaries Throughout; strongly acid, pH 5.4, pH indicator solutions; clear wavy boundary.

Bt--41 to 82 centimeters (16.1 to 32.3 inches); brown (10YR 4/3) interior sandy clay loam; 24 percent clay; moderate medium subangular blocky structure; friable, slightly sticky, moderately plastic; medium roots throughout and fine roots throughout and coarse roots throughout; 5 percent medium prominent irregular 7.5YR 4/6), moist, iron-manganese masses with clear boundaries Throughout and 10 percent medium faint irregular 2.5Y 5/2), moist, iron depletions with clear boundaries Throughout; strongly acid, pH 5.4, pH indicator solutions; clear smooth boundary.

BCt--82 to 100 centimeters (32.3 to 39.4 inches); brown (10YR 4/3) interior sandy loam; 17 percent clay; weak very coarse prismatic parts to weak fine subangular blocky, and weak very coarse prismatic parts to weak medium subangular blocky structure; friable, slightly sticky, moderately plastic; very fine roots throughout; 23 percent medium faint irregular 2.5Y 4/2), moist, iron depletions with clear boundaries Throughout and 23 percent medium distinct irregular 5YR 4/4), moist, iron-manganese masses with clear boundaries Throughout; strongly acid, pH 5.4, pH indicator solutions.

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017
Description Date: Apr 7 2016
Describer: Dean Shields
NEON Plot ID: SERC_019
Site ID: S2016MD003019

Pedon ID: S2016MD003019

Site Note:

Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0811
Soil Name as Described/Sampled: Donlonton
Classification: Fine-loamy, glauconitic, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils: Adelphia, Annapolis, Colemantown, Collington, Dodon, Holmdel, Marr, Shrewsbury, Westphalia, Wist
Physiographic Division: Atlantic Plain
Physiographic Province: Coastal Plain
Physiographic Section: Embayed section
State Physiographic Area:

Local Physiographic Area: SERC
Geomorphic Setting: on footslope of base slope of hillslope
on footslope of base slope of coastal plain
Upslope Shape: linear
Cross Slope Shape: concave
Particle Size Control Section: 30 to 78 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 30 cm.
argillic horizon 30 to 78 cm.
aquic conditions 54 to 100 cm.
redox concentrations 54 to 100 cm.
redox depletions with chroma 2 or less 54 to 100 cm.

Country: United States
State: Maryland
County: Anne Arundel
MLRA: 149A -- Northern Coastal Plain
Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey
Map Unit: SsA -- Shrewsbury loam, 0 to 2 percent slopes
Pit Location: Plot ID SERC_019 Distance: 3.2 meters Compass Bearing: 264 degrees Reference Point: from the 20x20 SW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag marking pit face sampled
Quad Name: Deale, Maryland
Std Latitude: 38.8715861
Std Longitude: -76.5509528

Latitude: 38 degrees 52 minutes 17.71 seconds north
Longitude: 76 degrees 33 minutes 3.43 seconds west
Datum: WGS84
UTM Zone: 18
UTM Easting: 365454 meters
UTM Northing: 4303670 meters

Primary Earth Cover: Tree cover
Secondary Earth Cover: Hardwoods
Existing Vegetation:
Parent Material: loamy glauconitic fluviomarine deposits
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016MD003019 **Pedon ID:** S2016MD003019

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
7.0	11.0	190						moderately well		

A--0 to 10 centimeters (0.0 to 3.9 inches); black (2.5Y 2.5/1) fine sandy loam; 12 percent clay; moderate fine granular structure; friable; very fine roots throughout and fine roots throughout; moderately acid, pH 6.0, pH indicator solutions; clear smooth boundary. Lab sample # 16N03606

Ap--10 to 30 centimeters (3.9 to 11.8 inches); dark olive brown (2.5Y 3/3) sandy loam; 13 percent clay; moderate fine subangular blocky structure; friable; very coarse roots throughout and medium roots throughout; 20 percent glauconite pellets; moderately acid, pH 5.6, pH indicator solutions; clear smooth boundary. Lab sample # 16N03607

Bt1--30 to 54 centimeters (11.8 to 21.3 inches); olive brown (2.5Y 4/4) sandy clay loam; 22 percent clay; strong fine subangular blocky structure; friable; medium roots throughout; 30 percent distinct clay films on all faces of peds; 35 percent glauconite pellets; 1 percent nonflat rounded strongly cemented 2 to 75-millimeter Quartz fragments; strongly acid, pH 5.4, pH indicator solutions; clear wavy boundary. Lab sample # 16N03608

Bt2--54 to 78 centimeters (21.3 to 30.7 inches); dark olive brown (2.5Y 3/3) sandy clay loam; 25 percent clay; moderate medium subangular blocky structure; friable; medium roots throughout; 10 percent distinct clay films on all faces of peds; 10 percent 7.5YR 4/6), moist, and 7.5YR 3/4), moist, masses of oxidized iron and 15 percent 2.5Y 4/1), moist, iron depletions; 55 percent glauconite pellets; strongly acid, pH 5.5, pH indicator solutions; clear smooth boundary. Lab sample # 16N03609

CBt--78 to 100 centimeters (30.7 to 39.4 inches); very dark grayish brown (2.5Y 3/2) sandy loam; 10 percent clay; weak coarse subangular blocky structure; friable; fine roots throughout; 10 percent 7.5YR 3/4), moist, masses of oxidized iron and 15 percent 2.5Y 4/1), moist, iron depletions; 70 percent glauconite pellets; strongly acid, pH 5.2, pH indicator solutions. Lab sample # 16N03610

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017
Description Date: Apr 6 2016
Describer: Phil King
NEON Plot ID: SERC_020
Site ID: S2016MD003020

Pedon ID: S2016MD003020

Site Note:

Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0812
Soil Name as Described/Sampled: Holmdel
Classification: Fine-loamy, glauconitic, active, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:
Pedon Type: taxadjunct to the series
Pedon Purpose: research site
Taxon Kind: taxadjunct
Associated Soils: Adelphia, Colemantoen, Collington, Dodon, Donlonton, Holmdel, Marr, Shrewsbury, Wist
Physiographic Division: Atlantic Plain
Physiographic Province: Coastal Plain
Physiographic Section: Embayed section
State Physiographic Area:
Local Physiographic Area: SERC
Geomorphic Setting: on backslope of interfluve of coastal plain
on backslope of interfluve of upland
on backslope of interfluve of hill
on backslope of interfluve of interfluve
Upslope Shape: linear
Cross Slope Shape: convex
Particle Size Control Section: 24 to 58 cm.
Description origin: NASIS

Country: United States
State: Maryland
County: Anne Arundel
MLRA: 149A -- Northern Coastal Plain
Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey
Map Unit: AsB -- Annapolis fine sandy loam, 2 to 5 percent slopes
Pit Location: Plot ID SERC_020 Distance: 11.9 meters Compass Bearing: 55 degrees Reference Point: from the 20x20 SW marker Measurement Location: to the pit face that was sampled Remarks: Flagged with yellow orange or pink pin flag marking pit face sampled. This site was the first open field site within a cultivated field. Diana with NEON was onsite during the pit location discussion and agreed to our selection. We were told not to worry about being within the 20x20 or even the 40x40 plots since the sites were under cultivation and could not be marked. Also the sensitiveness of these sites are not the same as the forested sites due to active farming practices.
Quad Name: Deale, Maryland
Std Latitude: 38.8700056
Std Longitude: -76.5360833

Latitude: 38 degrees 52 minutes 12.02 seconds north
Longitude: 76 degrees 32 minutes 9.90 seconds west
Datum: WGS84
UTM Zone: 18
UTM Easting: 366741 meters
UTM Northing: 4303472 meters

Primary Earth Cover: Crop cover
Secondary Earth Cover: Row crop
Existing Vegetation:
Parent Material: loamy marine deposits
Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016MD003020 **Pedon ID:** S2016MD003020

Diagnostic Features: ochric epipedon 0 to 24 cm.
argillic horizon 24 to 58 cm.
redox depletions with chroma 2 or less 24 to 58 cm.
aquic conditions 24 to 100 cm.
redox concentrations 24 to 100 cm.
reduced matrix 58 to 100 cm.

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
3.0	6.0	70						somewhat poorly		

Ap--0 to 24 centimeters (0.0 to 9.4 inches); 70 percent very dark gray (10YR 3/1) and 25 percent light olive brown (2.5Y 5/6) and 5 percent brown (7.5YR 4/4) loam, light olive brown (2.5Y 5/3), dry; weak fine subangular blocky, and weak medium subangular blocky structure; friable; very fine roots throughout; 30 percent glauconite pellets throughout; neutral, pH 6.8, pH indicator solutions; abrupt wavy boundary. Lab sample # 16N03611

Bt1--24 to 38 centimeters (9.4 to 15.0 inches); 90 percent olive brown (2.5Y 4/4) and 5 percent strong brown (7.5YR 4/6) sandy clay loam; 25 percent clay; moderate medium subangular blocky, and moderate coarse subangular blocky structure; friable; very fine roots throughout; 5 percent 7.5YR 5/2), moist, iron depletions; 30 percent glauconite pellets throughout; neutral, pH 6.6, pH indicator solutions; clear wavy boundary. Lab sample # 16N03612

Bt2--38 to 58 centimeters (15.0 to 22.8 inches); 60 percent dark grayish brown (2.5Y 4/2) and 30 percent strong brown (7.5YR 4/6) and 10 percent dark brown (7.5YR 3/4) sandy clay loam; 22 percent clay; weak medium subangular blocky, and weak coarse subangular blocky structure; friable; very fine roots throughout; 30 percent glauconite pellets throughout; strongly acid, pH 5.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N03613

Cg1--58 to 88 centimeters (22.8 to 34.6 inches); 70 percent very dark grayish brown (2.5Y 3/2) and 30 percent strong brown (7.5YR 4/6) loamy sand; 7 percent clay; massive; friable; 90 percent glauconite pellets throughout; strongly acid, pH 5.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N03614

Cg2--88 to 100 centimeters (34.6 to 39.4 inches); 75 percent light brownish gray (2.5Y 6/2) and 25 percent strong brown (7.5YR 5/8) clay loam; 28 percent clay; massive; friable; 40 percent glauconite pellets throughout; strongly acid, pH 5.2, pH indicator solutions. Lab sample # 16N03615

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 5 2016

Describer: Phil King

NEON Plot ID: SERC_022

Site ID: S2016MD003022

Pedon ID: S2016MD003022

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 16N0813

Soil Name as Described/Sampled: Dodon

Classification: Fine-loamy, siliceous, semiactive, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: taxadjunct to the series

Pedon Purpose: research site

Taxon Kind: taxadjunct

Associated Soils: Adelphia, Annapolis, Colemantown, Collington, Donlonton, Holmdel, Marr, Westphalia, Wist

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on shoulder of side slope of coastal plain
on shoulder of side slope of upland
on shoulder of side slope of hill
on shoulder of side slope of interfluve

Upslope Shape: convex

Cross Slope Shape: convex

Particle Size Control Section: 36 to 79 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 36 cm.
argillic horizon 36 to 79 cm.
aquic conditions 79 to 100 cm.
redox concentrations 79 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: MaD -- Marr-Dodon complex, 10 to 15 percent slopes

Pit Location: Plot ID SERC_022 Distance: 20.6 meters Compass Bearing: 356 degrees Reference Point: from the 20x20 SW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sampled

Quad Name: South River, Maryland

Std Latitude: 38.8755600

Std Longitude: -76.5548100

Latitude: 38 degrees 52 minutes 32.01 seconds north

Longitude: 76 degrees 33 minutes 17.31 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 365127 meters

UTM Northing: 4304116 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: loamy marine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016MD003022 **Pedon ID:** S2016MD003022

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	15.0	315						moderately well		

Ap--0 to 13 centimeters (0.0 to 5.1 inches); very dark grayish brown (10YR 3/2) fine sandy loam; 14 percent clay; strong medium granular structure; friable, nonsticky, nonplastic; very fine roots and fine roots; strongly acid, pH 5.4, pH indicator solutions; clear smooth boundary. Lab sample # 16N03616

E--13 to 36 centimeters (5.1 to 14.2 inches); dark yellowish brown (10YR 3/4) fine sandy loam; 16 percent clay; weak medium subangular blocky structure; friable, nonsticky, nonplastic; medium roots; moderately acid, pH 5.6, pH indicator solutions; clear wavy boundary. Lab sample # 16N03617

Bt--36 to 79 centimeters (14.2 to 31.1 inches); 70 percent dark yellowish brown (10YR 4/6) and 30 percent brownish yellow (10YR 6/6) clay loam; 32 percent clay; strong medium subangular blocky, and strong fine subangular blocky structure; friable, slightly sticky, slightly plastic; medium roots; prominent 10YR 4/4), moist, clay films; moderately acid, pH 5.6, pH indicator solutions; clear wavy boundary. Lab sample # 16N03618

BCt--79 to 100 centimeters (31.1 to 39.4 inches); yellowish brown (10YR 5/6) sandy clay loam; 29 percent clay; medium prismatic parts to subangular blocky structure; friable, moderately sticky, moderately plastic; distinct 10YR 4/4), moist, clay films; 5 percent 7.5YR 4/6), moist, masses of oxidized iron and 7 percent 10YR 5/3), moist, iron depletions; moderately acid, pH 5.6, pH indicator solutions. Lab sample # 16N03619

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 4 2016

Describer: Greg Taylor

NEON Plot ID: SERC_025

Site ID: S2016MD003025

Pedon ID: S2016MD003025

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 16N0814

Soil Name as Described/Sampled: Annapolis

Classification: Fine-loamy, glauconitic, mesic Typic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: research site

Taxon Kind: series

Associated Soils: Adelphia, Colemantown, Collington, Dodon, Donlonton, Holmdel, Marr, Westphalia, Wist

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on backslope of side slope of upland
on backslope of side slope of coastal plain
on backslope of side slope of hill

Upslope Shape: convex

Cross Slope Shape: convex

Particle Size Control Section: 11 to 25 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 11 cm.
argillic horizon 11 to 25 cm.
redox concentrations 48 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: AsC -- Annapolis fine sandy loam, 5 to 10 percent slopes

Pit Location: Plot ID SERC_025 Distance: 11.7 meters Compass Bearing: 130 degrees Reference Point: from the 20x20 SW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sampled

Quad Name: South River, Maryland

Std Latitude: 38.8861917

Std Longitude: -76.5516667

Latitude: 38 degrees 53 minutes 10.29 seconds north

Longitude: 76 degrees 33 minutes 6.00 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 365415 meters

UTM Northing: 4305295 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: loamy glauconitic fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016MD003025 **Pedon ID:** S2016MD003025

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
17.0	17.0	50						well		

Ap--0 to 11 centimeters (0.0 to 4.3 inches); very dark grayish brown (10YR 3/2) loam, brown (10YR 5/3), dry; 14 percent clay; strong fine granular, and strong medium granular structure; friable, nonsticky, nonplastic; very fine roots throughout and medium roots throughout and fine roots throughout; many medium tubular and many fine tubular pores; 10 percent clay films on vertical faces of peds; slightly acid, pH 6.2, pH indicator solutions; clear smooth boundary. Lab sample # 16N03620

Bt--11 to 25 centimeters (4.3 to 9.8 inches); dark grayish brown (10YR 4/2) clay loam; 30 percent clay; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; medium roots throughout and fine roots throughout; many fine tubular and common coarse tubular pores; 20 percent clay films on all faces of peds; 25 percent glauconite pellets throughout; moderately acid, pH 5.6, pH indicator solutions; clear smooth boundary. Lab sample # 16N03621

BCt--25 to 48 centimeters (9.8 to 18.9 inches); olive brown (2.5Y 4/3) fine sandy loam; weak very coarse prismatic parts to weak coarse single grain; friable, nonsticky, nonplastic; fine roots throughout and coarse roots throughout; common coarse tubular pores; 10 percent clay films on vertical faces of peds; 60 percent glauconite pellets throughout; strongly acid, pH 5.5, pH indicator solutions; clear smooth boundary. Lab sample # 16N03622

BCj--48 to 73 centimeters (18.9 to 28.7 inches); 50 percent very dark grayish brown (2.5Y 3/2) and 30 percent olive brown (2.5Y 4/3) and 20 percent brown (7.5YR 4/4) fine sandy loam; structureless massive parts to single grain; friable, nonsticky, nonplastic; fine roots throughout; 7 percent prominent irregular jarosite masses Throughout; 60 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; clear wavy boundary. Lab sample # 16N03623

Cj--73 to 100 centimeters (28.7 to 39.4 inches); 75 percent very dark gray (2.5Y 3/1) and 15 percent olive brown (2.5Y 4/3) and 10 percent brown (7.5YR 4/4) fine sandy loam; structureless massive parts to single grain; friable, nonsticky, nonplastic; fine roots throughout; 30 percent prominent irregular jarosite masses Throughout; 70 percent glauconite pellets throughout; strongly acid, pH 5.2, pH indicator solutions. Lab sample # 16N03624

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 6 2016

Describer: Greg Taylor

NEON Plot ID: SERC_026

Site ID: S2016MD003026

Pedon ID: S2016MD003026

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 16N0815

Soil Name as Described/Sampled: Donlonton

Classification: Fine-loamy, glauconitic, mesic Oxyaquic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: taxadjunct to the series

Pedon Purpose: research site

Taxon Kind: taxadjunct

Associated Soils: Adelphia, Annapolis, Colemantown, Collington, Dodon, Holmdel, Marr, Shrewsbury, Westphalia, Wist

Physiographic Division: Appalachian Highlands

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on backslope of side slope of coastal plain
on backslope of side slope of upland
on backslope of side slope of hill
on backslope of side slope of interfluve

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 19 to 69 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 19 cm.
argillic horizon 19 to 94 cm.
aquic conditions 54 to 100 cm.
redox concentrations 54 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: SsA -- Shrewsbury loam, 0 to 2 percent slopes

Pit Location: Plot ID SERC_026 Distance: 4.9 meters Compass Bearing: 110 degrees Reference Point: from the 20x20 NE marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sampled

Quad Name: South River, Maryland

Std Latitude: 38.9012833

Std Longitude: -76.5504139

Latitude: 38 degrees 54 minutes 4.62 seconds north

Longitude: 76 degrees 33 minutes 1.49 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 364230 meters

UTM Northing: 4267789 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Intermixed conifers and hardwoods

Existing Vegetation:

Parent Material: loamy fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Cont. Site ID: S2016MD003026 **Pedon ID:** S2016MD003026

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
8.0	13.0	14						moderately well		

A--0 to 8 centimeters (0.0 to 3.1 inches); brown (10YR 4/3) loam; 17 percent clay; moderate fine granular structure; very friable, nonsticky, nonplastic; medium roots throughout and fine roots throughout and coarse roots throughout; moderately acid, pH 5.8, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N03625

BA--8 to 19 centimeters (3.1 to 7.5 inches); brown (10YR 4/3) loam; 24 percent clay; weak medium subangular blocky, and moderate medium subangular blocky structure; very friable, slightly sticky, slightly plastic; fine roots throughout and fine roots throughout; very fine vesicular pores; 10 percent faint 10YR 4/3), moist, clay films on all faces of peds; 3 percent glauconite pellets throughout; moderately acid, pH 5.6, pH indicator solutions; clear smooth boundary. Lab sample # 16N03626

Bt1--19 to 54 centimeters (7.5 to 21.3 inches); dark yellowish brown (10YR 4/4) clay loam; 36 percent clay; moderate medium subangular blocky, and moderate medium angular blocky structure; firm, moderately sticky, moderately plastic; fine roots throughout; very fine vesicular pores; 65 percent faint 10YR 4/4), moist, clay films on all faces of peds; 5 percent glauconite pellets throughout; 1 percent nonflat rounded strongly cemented 2 to 75-millimeter Quartzite fragments; moderately acid, pH 5.8, pH indicator solutions; clear wavy boundary. Lab sample # 16N03627

Bt2--54 to 94 centimeters (21.3 to 37.0 inches); olive brown (2.5Y 4/4) clay loam; 31 percent clay; moderate medium subangular blocky structure; firm, slightly sticky, slightly plastic; fine roots throughout; very fine vesicular pores; 50 percent faint 2.5Y 4/4), moist, clay films on all faces of peds; 10 percent coarse irregular 5YR 4/6), moist, masses of oxidized iron Throughout and 25 percent coarse irregular 2.5Y 6/3), moist, iron depletions Throughout; 20 percent glauconite pellets throughout; moderately acid, pH 5.6, pH indicator solutions; clear wavy boundary. Lab sample # 16N03628

BCt--94 to 100 centimeters (37.0 to 39.4 inches); light yellowish brown (2.5Y 6/3) loam; 26 percent clay; moderate medium platy parts to moderate fine angular blocky structure; friable, slightly sticky, slightly plastic; fine roots throughout; very fine vesicular pores; 20 percent faint 2.5Y 4/4), moist, clay films on all faces of peds; 10 percent medium irregular 5YR 4/4), moist, masses of oxidized iron Throughout and 21 percent medium irregular 10YR 5/6), moist, masses of oxidized iron Throughout; 23 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N03629

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017
Description Date: Apr 19 2016
Describer: Chris Seitz
NEON Plot ID: SERC_027
Site ID: S2016MD003027

Pedon ID: S2016MD003027

Site Note:

Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0816
Soil Name as Described/Sampled: Annapolis
Classification: Fine-loamy, glauconitic, mesic Typic Hapludults

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils: Adelphia, Colemantown, Collington, Donlonton, Holmdel, Shrewsbury, Wist
Physiographic Division: Atlantic Plain
Physiographic Province: Coastal Plain
Physiographic Section: Embayed section
State Physiographic Area:

Local Physiographic Area: SERC
Geomorphic Setting: on tread of fluviomarine terrace
on tread of coastal plain
Upslope Shape: convex
Cross Slope Shape: linear
Particle Size Control Section: 23 to 73 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 23 cm.
argillic horizon 23 to 76 cm.

Country: United States
State: Maryland
County: Anne Arundel
MLRA: 149A -- Northern Coastal Plain
Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey
Map Unit: AsB -- Annapolis fine sandy loam, 2 to 5 percent slopes
Pit Location: Plot ID SERC_027 Distance: 9.5 meters Compass Bearing: 43 degrees Reference Point: from the 40x40 SW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow orange or pink pin flag or stick with flagging marking pit face sampled
Quad Name: Deale, Maryland
Std Latitude: 38.8735556
Std Longitude: -76.5438333

Latitude: 38 degrees 52 minutes 24.80 seconds north
Longitude: 76 degrees 32 minutes 37.80 seconds west
Datum: WGS84
UTM Zone: 18
UTM Easting: 366294 meters
UTM Northing: 4304130 meters

Primary Earth Cover: Crop cover
Secondary Earth Cover: Row crop
Existing Vegetation:
Parent Material: glauconitic fine-loamy fluviomarine deposits
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016MD003027 **Pedon ID:** S2016MD003027

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
3.0	2.0							well		

Ap--0 to 23 centimeters (0.0 to 9.1 inches); very dark grayish brown (2.5Y 3/2) sandy loam, light olive brown (2.5Y 5/3), dry; 6 percent clay; weak coarse subangular blocky structure; friable, nonsticky, nonplastic; very fine roots throughout; moderately acid, pH 6.0, pH indicator solutions; abrupt smooth boundary. Lab sample # 16N03630

Bt1--23 to 49 centimeters (9.1 to 19.3 inches); brown (10YR 4/3) sandy clay loam; 30 percent clay; weak medium subangular blocky structure; friable, slightly sticky, moderately plastic; common very fine roots throughout; 2.5Y 4/3), moist, clay films; 5 percent glauconite pellets throughout; neutral, pH 6.6, pH indicator solutions; clear wavy boundary. Lab sample # 16N03631

Bt2--49 to 76 centimeters (19.3 to 29.9 inches); brown (10YR 4/3) sandy clay loam; 25 percent clay; 10 percent medium prominent irregular (2.5Y 5/2) mottles; weak medium prismatic parts to moderate fine subangular blocky structure; friable, nonsticky, nonplastic; common very fine roots throughout; 2.5YR 3/3), moist, clay films; 40 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; clear wavy boundary. Lab sample # 16N03632

CB--76 to 100 centimeters (29.9 to 39.4 inches); very dark gray (10YR 3/1) sandy loam; 15 percent clay; 10 percent medium distinct irregular (2.5YR 5/3) and 40 percent medium distinct irregular (10YR 4/3) mottles; weak coarse prismatic parts to weak thick platy structure; friable, nonsticky, nonplastic; common very fine roots throughout; 55 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N03633

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 18 2016

Describer: Ben Marshall, Dave Verdone, Phil King, Dean Shields, Chris Seitz and Rob Tunstead

NEON Plot ID: SERC_028

Site ID: S2016MD003028

Pedon ID: S2016MD003028

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #:

Soil Name as Described/Sampled: Sharptown

Classification: Fine-silty, mixed, active, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: ecological site data

Taxon Kind: series

Associated Soils: Adelphia, Cumberstone, Mattapex

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on summit of tread of fluviomarine terrace
on summit of tread of coastal plain

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 28 to 78 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 28 cm.
argillic horizon 28 to 100 cm.
redox depletions with chroma 2 or less 44 to 63 cm.
aquic conditions 44 to 100 cm.
reduced matrix 63 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: CxA -- Cumberstone-Mattapex complex, 0 to 2 percent slopes

Pit Location: Plot ID SERC_028 No plot marker found Distance: meters Compass Bearing: degrees Reference Point: from the marker Measurement Location: to the pit face that was sampled Remarks: Field recently plowed could not locate any corner marker; flagged with yellow orange or pink pin flag marking pit face sampled; GPS point taken 38.8718734 Latitude; -76.5221286 Longitude

Quad Name: Deale, Maryland

Std Latitude: 38.8718620

Std Longitude: -76.5221340

Latitude: 38 degrees 52 minutes 18.70 seconds north

Longitude: 76 degrees 31 minutes 19.67 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 367955 meters

UTM Northing: 4303659 meters

Primary Earth Cover: Crop cover

Secondary Earth Cover: Row crop

Existing Vegetation:

Parent Material: fine-silty fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA03_Raleigh

Cont. Site ID: S2016MD003028 **Pedon ID:** S2016MD003028

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
0.5	4.0	220						moderately well		

Ap--0 to 28 centimeters (0.0 to 11.0 inches); dark brown (10YR 3/3) interior silt loam, pale brown (10YR 6/3) interior, dry; 15 percent clay; weak medium subangular blocky parts to strong fine subangular blocky structure; friable, nonsticky, nonplastic; very fine roots throughout and fine roots throughout; neutral, pH 6.8, pH indicator solutions; abrupt wavy boundary.

Bt1--28 to 44 centimeters (11.0 to 17.3 inches); yellowish brown (10YR 5/4) interior silt loam; 24 percent clay; moderate medium subangular blocky structure; firm, slightly sticky, slightly plastic; very fine roots throughout; very fine low-continuity vesicular pores; 20 percent faint 10YR 5/4), moist, clay films on all faces of peds; 15 percent medium prominent irregular 10YR 5/8), moist, iron-manganese masses with clear boundaries Throughout; neutral, pH 6.6, pH indicator solutions; clear wavy boundary.

Bt2--44 to 63 centimeters (17.3 to 24.8 inches); light olive brown (2.5Y 5/4) interior silty clay loam; 30 percent clay; weak coarse prismatic parts to moderate medium subangular blocky structure; friable, slightly sticky, moderately plastic; very fine roots throughout; very fine low-continuity vesicular pores; 30 percent faint 10YR 5/4), moist, clay films on all faces of peds; 10 percent medium distinct irregular 2.5Y 6/2), moist, iron depletions with clear boundaries Throughout and 20 percent medium distinct irregular 10YR 5/6), moist, iron-manganese masses with clear boundaries Throughout; neutral, pH 6.6, pH indicator solutions; gradual wavy boundary.

Btg--63 to 100 centimeters (24.8 to 39.4 inches); gray (5Y 6/1) interior silt loam; 20 percent clay; weak coarse prismatic, and weak coarse platy structure; friable, slightly sticky, slightly plastic; very fine roots throughout; very fine low-continuity vesicular pores; 15 percent faint 2.5Y 5/2), moist, clay films on all faces of peds; 20 percent medium prominent irregular 7.5YR 5/6), moist, iron-manganese masses with sharp boundaries Throughout; strongly acid, pH 5.1, pH indicator solutions.

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017
Description Date: Apr 18 2016
Describer: Ben Marshall
NEON Plot ID: SERC_029
Site ID: S2016MD003029

Pedon ID: S2016MD003029

Site Note:

Pedon Note:
Lab Source ID: KSSL
Lab Pedon #: 16N0818
Soil Name as Described/Sampled: Donlonton
Classification: Fine-loamy, glauconitic, mesic Aquic Hapludults

Soil Name as Correlated:

Classification:
Pedon Type: correlates to named soil
Pedon Purpose: research site
Taxon Kind: series
Associated Soils: Adelphia, Cumberstone, Mattapex
Physiographic Division: Atlantic Plain
Physiographic Province: Coastal Plain
Physiographic Section: Embayed section
State Physiographic Area:

Local Physiographic Area: SERC
Geomorphic Setting: on footslope of tread of fluviomarine terrace on footslope of tread of coastal plain
Upslope Shape: concave
Cross Slope Shape: concave
Particle Size Control Section: 36 to 75 cm.
Description origin: NASIS
Diagnostic Features: ochric epipedon 0 to 36 cm.
argillic horizon 36 to 75 cm.
aquic conditions 36 to 100 cm.
redox concentrations 36 to 100 cm.

Country: United States
State: Maryland
County: Anne Arundel
MLRA: 149A -- Northern Coastal Plain
Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey
Map Unit: AdB -- Adelphia-Holmdel complex, 2 to 5 percent slopes
Pit Location: Plot ID SERC_029 Distance: 16.0 meters Compass Bearing: 30 degrees Reference Point: from the 40x40 SW marker Measurement Location: to the pit face that was sampled Remarks: In a recently plowed field flagged with yellow or orange or pink pin flag marking pit face sampled
Quad Name: Deale, Maryland
Std Latitude: 38.8711400
Std Longitude: -76.5291563

Latitude: 38 degrees 52 minutes 16.10 seconds north
Longitude: 76 degrees 31 minutes 44.96 seconds west
Datum: WGS84
UTM Zone: 18
UTM Easting: 367344 meters
UTM Northing: 4303588 meters

Primary Earth Cover: Crop cover
Secondary Earth Cover: Row crop
Existing Vegetation:
Parent Material: loamy glauconitic fluviomarine deposits
Bedrock Kind:
Bedrock Depth:
Bedrock Hardness:
Bedrock Fracture Interval:
Surface Fragments:
Description database: KSSL

Cont. Site ID: S2016MD003029 **Pedon ID:** S2016MD003029

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	7.0	320						moderately well		

Ap--0 to 36 centimeters (0.0 to 14.2 inches); brown (10YR 4/3) sandy loam, light brownish gray (10YR 6/2), dry; 12 percent clay; weak medium subangular blocky structure; very friable, slightly sticky, nonplastic; very fine roots throughout; moderately acid, pH 6.0, pH indicator solutions; clear smooth boundary. Lab sample # 16N03638

Bt1--36 to 56 centimeters (14.2 to 22.0 inches); olive brown (2.5Y 4/3) sandy clay loam; 22 percent clay; moderate coarse subangular blocky structure; friable, slightly sticky, slightly plastic; very fine roots throughout; 30 percent 5Y 4/3), moist, clay films on all faces of peds; 30 percent fine irregular 5Y 4/4), moist, masses of oxidized iron Throughout; 10 percent glauconite pellets throughout; moderately acid, pH 5.8, pH indicator solutions; clear smooth boundary. Lab sample # 16N03639

Bt2--56 to 75 centimeters (22.0 to 29.5 inches); olive (5Y 4/3) sandy clay loam; 20 percent clay; moderate coarse subangular blocky structure; friable, slightly sticky, slightly plastic; very fine roots throughout; 25 percent 5Y 4/3), moist, clay films on all faces of peds; 20 percent irregular 5YR 4/4), moist, masses of oxidized iron Throughout; 50 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions; clear wavy boundary. Lab sample # 16N03640. A thin layer of plinthite occupies about 25 percent at the bottom of this horizon.

BCt--75 to 100 centimeters (29.5 to 39.4 inches); dark grayish olive (10Y 4/2) sandy loam; 18 percent clay; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; very fine roots throughout; 10 percent 7.5YR 4/3), moist, clay bridges between sand grains; 40 percent irregular 7.5YR 4/6), moist, masses of oxidized iron Throughout; 75 percent glauconite pellets throughout; strongly acid, pH 5.4, pH indicator solutions. Lab sample # 16N03641

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 8 2016

Describer: Chad Ferguson, Greg Taylor and Rob Tunstead

NEON Plot ID: SERC_030

Site ID: S2016MD003030

Pedon ID: S2016MD003030

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #:

Soil Name as Described/Sampled: Hurlock

Classification: Coarse-loamy, siliceous, semiactive, mesic Typic Endoaquults

Soil Name as Correlated:

Classification:

Pedon Type: taxadjunct to the series

Pedon Purpose: ecological site data

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on footslope of base slope of coastal plain on footslope of base slope of interfluve

Upslope Shape: linear

Cross Slope Shape: concave

Particle Size Control Section: 28 to 76 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 28 cm.
aquic conditions 17 to 100 cm.
redox concentrations 17 to 100 cm.
argillic horizon 28 to 76 cm.
reduced matrix 28 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: DnB -- Donlonton fine sandy loam, 2 to 5 percent slopes

Pit Location: Plot ID SERC_030 Distance: 8.2 meters Compass Bearing: 80 degrees Reference Point: from the 40x40 SW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow or orange or pink pin flag or stick with flagging marking pit face sampled Sampled soil pit location was 8 meters from the southwest outer 40 meter flag that was pre-located by NEON personnel. Azimuth from the outer 40 meter flag to the soil pit was 80 degrees.

Quad Name: South River, Maryland

Std Latitude: 38.9098639

Std Longitude: -76.5491139

Latitude: 38 degrees 54 minutes 35.51 seconds north

Longitude: 76 degrees 32 minutes 56.81 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 365686 meters

UTM Northing: 4307914 meters

Primary Earth Cover: Crop cover

Secondary Earth Cover: Row crop

Existing Vegetation:

Parent Material: coarse-loamy fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA03_Raleigh

Cont. Site ID: S2016MD003030 **Pedon ID:** S2016MD003030

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	18.0	175						somewhat poorly		

Ap1--0 to 17 centimeters (0.0 to 6.7 inches); brown (10YR 4/3) interior fine sandy loam, brown (10YR 5/3) interior, dry; moderate fine granular, and moderate medium granular structure; friable, nonsticky, nonplastic; very fine roots throughout and fine roots throughout; 1 percent nonflat subangular indurated 2 to 5-millimeter Quartzite fragments; slightly acid, pH 6.2, pH indicator solutions; clear smooth boundary.

Ap2--17 to 28 centimeters (6.7 to 11.0 inches); grayish brown (10YR 5/2) interior fine sandy loam, pale brown (10YR 6/3) interior, dry; moderate medium granular, and moderate coarse granular structure; friable, nonsticky, nonplastic; fine roots throughout; fine low-continuity dendritic tubular pores; 20 percent fine faint irregular 7.5YR 4/4), moist, iron-manganese masses with clear boundaries Throughout; moderately acid, pH 5.8, pH indicator solutions; clear smooth boundary.

Btg1--28 to 45 centimeters (11.0 to 17.7 inches); grayish brown (2.5Y 5/2) interior loam; 17 percent clay; moderate medium subangular blocky structure; firm, 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; 7 percent faint 2.5Y 5/2), moist, clay films on all faces of peds; 10 percent fine prominent irregular 7.5YR 5/6), moist, iron-manganese masses with clear boundaries Throughout; moderately acid, pH 5.6, pH indicator solutions; gradual wavy boundary.

Btg2--45 to 76 centimeters (17.7 to 29.9 inches); light brownish gray (2.5Y 6/2) interior loam; 16 percent clay; moderate medium subangular blocky structure; firm, slightly sticky, slightly plastic; very fine roots throughout and fine roots throughout; fine low-continuity vesicular pores; 25 percent faint 2.5Y 6/2), moist, clay films on all faces of peds; 8 percent fine prominent irregular 7.5YR 5/6), moist, iron-manganese masses with clear boundaries Throughout; strongly acid, pH 5.4, pH indicator solutions; gradual wavy boundary.

BCg--76 to 100 centimeters (29.9 to 39.4 inches); gray (2.5Y 6/1) interior fine sandy loam; 10 percent clay; weak medium subangular blocky structure; friable, nonsticky, nonplastic; 5 percent fine prominent irregular 7.5YR 6/4), moist, iron-manganese masses with clear boundaries Throughout; strongly acid, pH 5.2, pH indicator solutions.

PEDON DESCRIPTION -- NEON Site SERC

Print Date: Nov 5 2017

Description Date: Apr 5 2016

Describer: P. King, D. Shields, M. Van Lear, B. Marshall

NEON Plot ID: SERC_068

Site ID: S2016MD003068

Pedon ID: S2016MD003068

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #:

Soil Name as Described/Sampled: Marr

Classification: Fine-loamy, siliceous, semiactive, mesic Typic Hapludults

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: ecological site data

Taxon Kind: series

Associated Soils: Adelphia, Annapolis, Colemantown, Collington, Dodon, Donlonton, Holmdel, Westphalia, Wist

Physiographic Division: Atlantic Plain

Physiographic Province: Coastal Plain

Physiographic Section: Embayed section

State Physiographic Area:

Local Physiographic Area: SERC

Geomorphic Setting: on summit of nose slope of coastal plain
on summit of nose slope of upland
on summit of nose slope of interfluve

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 40 to 90 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 40 cm.
argillic horizon 40 to 100 cm.

Country: United States

State: Maryland

County: Anne Arundel

MLRA: 149A -- Northern Coastal Plain

Soil Survey Area: MD003 -- Anne Arundel County, Maryland
3-HAM -- Hammonton, New Jersey

Map Unit: MaC -- Marr-Dodon complex, 5 to 10 percent slopes

Pit Location: Plot ID SERC_068 Distance: 9.2 meters Compass Bearing: 242 degrees Reference Point: from the 20x20 SW marker Measurement Location: to the pit face that was sampled Remarks: flagged with yellow; orange or pink pin flag or stick with flagging marking pit face sampled

Quad Name: South River, Maryland

Std Latitude: 38.8799722

Std Longitude: -76.5567778

Latitude: 38 degrees 52 minutes 47.90 seconds north

Longitude: 76 degrees 33 minutes 24.40 seconds west

Datum: WGS84

UTM Zone: 18

UTM Easting: 365420 meters

UTM Northing: 4305292 meters

Primary Earth Cover: Tree cover

Secondary Earth Cover: Hardwoods

Existing Vegetation:

Parent Material: sandy fluviomarine deposits

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA03_Raleigh

Cont. Site ID: S2016MD003068 **Pedon ID:** S2016MD003068

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
8.0	20.0	350						well		

Ap--0 to 25 centimeters (0.0 to 9.8 inches); brown (10YR 4/3) fine sandy loam; 16 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; medium roots throughout and fine roots throughout; clear smooth boundary.

BE--25 to 40 centimeters (9.8 to 15.7 inches); yellowish brown (10YR 5/4) fine sandy loam; 16 percent clay; weak medium subangular blocky, and weak coarse subangular blocky structure; friable, nonsticky, slightly plastic; medium roots throughout; abrupt smooth boundary.

Bt1--40 to 64 centimeters (15.7 to 25.2 inches); dark yellowish brown (10YR 4/4) sandy clay loam; 27 percent clay; strong medium subangular blocky structure; friable, moderately sticky, moderately plastic; medium roots throughout; 20 percent prominent 10YR 4/4), moist, clay films; 10 percent glauconite pellets throughout; clear wavy boundary.

Bt2--64 to 100 centimeters (25.2 to 39.4 inches); strong brown (7.5YR 5/6) sandy clay loam; 24 percent clay; friable, moderately sticky, moderately plastic; medium roots throughout; 15 percent distinct 7.5YR 4/4), moist, clay films; 19 percent glauconite pellets throughout.