

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Aug 3 2017

Describer: Erik Dahlke

NEON Plot ID: ABBY_001

Site ID: S2017WA011001

Pedon ID: S2017WA011001

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Cinebar

Classification: Medial, mixed, mesic Humic Haploxerands

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of terrace

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 9 to 109 cm.

Description origin: NASIS

Diagnostic Features: andic soil properties 9 to 55 cm.
umbric epipedon 9 to 44 cm.
cambic horizon 44 to cm.
lithologic discontinuity 55 to cm.

Country:

State: Washington

County: Clark

MLRA: 2 -- Willamette and Puget Sound Valleys

Soil Survey Area: WA011 -- Clark County, Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7724960

Std Longitude: -122.3462280

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: beaked hazelnut, Cascade barberry, Douglas-fir, Pacific trillium, red huckleberry, salal, vine maple, western brackenfern, western swordfern

Parent Material: volcanic ash mixed with colluvium over alpine glacial drift

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Cont. Site ID: S2017WA011001

Pedon ID: S2017WA011001

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	290.0	298						well		

Oi--0 to 9 centimeters (0.0 to 3.5 inches); slightly decomposed plant material; abrupt smooth boundary.

A--9 to 23 centimeters (3.5 to 9.1 inches); medial silt loam, very dark brown (7.5YR 2.5/2) broken face, moist; 25 percent sand; 20 percent clay; strong medium granular structure; soft, friable, slightly sticky, slightly plastic; weakly smeary; common fine roots; many fine irregular pores; 5 percent nonflat indurated 75 to 250-millimeter Andesite fragments; abrupt wavy boundary.

Bw1--23 to 44 centimeters (9.1 to 17.3 inches); medial silt loam, dark brown (7.5YR 3/3) broken face, moist; 23 percent sand; 21 percent clay; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; weakly smeary; few medium roots and common fine roots and few coarse roots; common fine tubular pores; clear wavy boundary.

Bw2--44 to 55 centimeters (17.3 to 21.7 inches); medial silt loam, dark brown (7.5YR 3/4) broken face, moist; 16 percent sand; 27 percent clay; moderate fine subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; weakly smeary; few medium roots and few fine roots and few coarse roots; common fine tubular pores; 5 percent nonflat moderately cemented 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat indurated 75 to 250-millimeter Andesite fragments; clear smooth boundary.

2Bw3--55 to 100 centimeters (21.7 to 39.4 inches); silty clay loam, yellowish red (5YR 4/6) broken face, moist; 10 percent sand; 29 percent clay; moderate fine subangular blocky structure; hard, firm, moderately sticky, very plastic; few fine roots; common fine tubular pores; 10 percent nonflat moderately cemented 2 to 75-millimeter Mixed rock fragments.

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 17 2017

Describer: Jason Martin

NEON Plot ID: ABBY_002

Site ID: S2017WA011002

Pedon ID: S2017WA011002

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Aschoff

Classification: Loamy-skeletal, isotic, mesic Andic Humudepts

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of nose slope of high hill
on backslope of nose slope of hills

Upslope Shape: convex

Cross Slope Shape: convex

Particle Size Control Section: 26 to 101 cm.

Description origin: NASIS

Diagnostic Features: umbric epipedon 1 to 48 cm.
andic soil properties 1 to 31 cm.
cambic horizon 48 to cm.

Country:

State: Washington

County: Clark

MLRA: 3 -- Olympic and Cascade Mountains

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7389250

Std Longitude: -122.3090480

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: Douglas-fir, fireweed, salal,
western brackenfern, western pearly everlasting

Parent Material: colluvium derived from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

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	646.8	255						well		

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

A1--1 to 15 centimeters (0.4 to 5.9 inches); very dark brown (10YR 2/2) broken face very gravelly medial loam, very dark brown (7.5YR 2.5/2) broken face, dry; 40 percent sand; 22 percent clay; moderate fine granular structure; soft, very friable, nonsticky, nonplastic; weakly smeary; many very fine roots and common medium roots and common fine roots; 3 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 5 percent nonflat indurated 20 to 75-millimeter Andesite fragments and 10 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 25 percent nonflat indurated 2 to 5-millimeter Andesite fragments; clear smooth boundary.

A2--15 to 31 centimeters (5.9 to 12.2 inches); very dark brown (10YR 2/2) broken face gravelly medial loam, dark brown (10YR 3/3) broken face, dry; 40 percent sand; 22 percent clay; moderate medium subangular blocky structure; soft, very friable, nonsticky, nonplastic; weakly smeary; many very fine roots and common medium roots and common fine roots; 5 percent nonflat indurated 20 to 75-millimeter Andesite fragments and 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments; clear wavy boundary.

Bw1--31 to 48 centimeters (12.2 to 18.9 inches); dark brown (10YR 3/3) broken face loam, dark yellowish brown (10YR 4/4) broken face, dry; 45 percent sand; 20 percent clay; moderate medium subangular blocky structure; soft, very friable, nonsticky, nonplastic; common very fine roots and few medium roots and few fine roots; 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments; gradual smooth boundary.

Bw2--48 to 67 centimeters (18.9 to 26.4 inches); dark yellowish brown (10YR 3/4) broken face very gravelly clay loam, dark yellowish brown (10YR 4/4) broken face, dry; 40 percent sand; 28 percent clay; moderate medium subangular blocky structure; soft, very friable, slightly sticky, nonplastic; few medium roots and few fine roots; 5 percent nonflat indurated 20 to 75-millimeter Andesite fragments and 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 10 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 15 percent nonflat indurated 75 to 250-millimeter Andesite fragments; gradual wavy boundary.

Bw3--67 to 100 centimeters (26.4 to 39.4 inches); dark yellowish brown (10YR 4/4) broken face very cobbly loam, yellowish brown (10YR 5/4) broken face, dry; 40 percent sand; 26 percent clay; moderate coarse subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; few medium roots and few fine roots; 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 20 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 30 percent nonflat indurated 250 to 600-millimeter Andesite fragments.

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 18 2017

Describer: Daniel Ufnar

NEON Plot ID: ABBY_007

Site ID: S2017WA011007

Pedon ID: S2017WA011007

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Cinebar

Classification: Medial, mixed, mesic Humic Haploxerands

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of hillslope
on backslope of side slope of hills

Upslope Shape: convex

Cross Slope Shape: convex

Particle Size Control Section: 3 to 103 cm.

Description origin: NASIS

Diagnostic Features: andic soil properties 3 to cm.
umbric epipedon 3 to 53 cm.
cambic horizon 53 to cm.

Country:

State: Washington

County: Clark

MLRA: 2 -- Willamette and Puget Sound Valleys

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7690370

Std Longitude: -122.3611930

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation:

Parent Material: volcanic ash mixed with colluvium
derived from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Cont. Site ID: S2017WA011007

Pedon ID: S2017WA011007

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
21.0	454.0	61						well		

Oi--0 to 3 centimeters (0.0 to 1.2 inches); slightly decomposed plant material; abrupt wavy boundary.

A1--3 to 26 centimeters (1.2 to 10.2 inches); medial loam, very dark brown (7.5YR 2.5/3) broken face, moist; 35 percent sand; 20 percent clay; moderate fine granular structure; soft, very friable, nonsticky, slightly plastic; weakly smeary; common very fine roots and few very coarse roots and common medium roots and few coarse roots; gradual irregular boundary.

A2--26 to 53 centimeters (10.2 to 20.9 inches); cobbly medial loam, dark brown (7.5YR 3/3) broken face, moist; 35 percent sand; 22 percent clay; moderate very fine subangular blocky structure; soft, friable, slightly sticky, slightly plastic; weakly smeary; common very fine roots and few very coarse roots and common medium roots and common fine roots; 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 10 percent nonflat indurated 75 to 250-millimeter Andesite fragments; gradual irregular boundary.

Bw1--53 to 69 centimeters (20.9 to 27.2 inches); medial silt loam, brown (7.5YR 4/4) broken face, moist; 22 percent sand; 24 percent clay; moderate very fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; weakly smeary; few very coarse roots and common medium roots and common fine roots; 1 percent nonflat indurated 5 to 20-millimeter Andesite fragments; gradual wavy boundary.

Bw2--69 to 100 centimeters (27.2 to 39.4 inches); very gravelly medial clay loam, brown (7.5YR 4/4) broken face, moist; 25 percent sand; 30 percent clay; moderate fine subangular blocky structure; moderately hard, firm, slightly sticky, slightly plastic; weakly smeary; few medium roots and few fine roots and few coarse roots; 2 percent nonflat moderately cemented 5 to 20-millimeter Andesite fragments and 10 percent nonflat moderately cemented 250 to 600-millimeter Andesite fragments and 30 percent nonflat moderately cemented 2 to 5-millimeter Andesite fragments.

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 18 2017

Describer: Daniel Ufnar

NEON Plot ID: ABBY_008

Site ID: S2017WA011008

Pedon ID: S2017WA011008

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Cinebar

Classification: Medial, mixed, mesic Humic Haploxerands

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of hills
on backslope of side slope of hillslope

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 3 to 103 cm.

Description origin: NASIS

Diagnostic Features: umbric epipedon 3 to 34 cm.
andic soil properties 3 to cm.
cambic horizon 34 to cm.

Country:

State: Washington

County: Clark

MLRA: 2 -- Willamette and Puget Sound Valleys

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7711950

Std Longitude: -122.3551000

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: beaked hazelnut, California
blackberry, Cascade barberry, Douglas-fir, red
alder, red huckleberry, salal, vine maple, western
brackenfern, western swordfern

Parent Material: volcanic ash mixed with colluvium
derived from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Cont. Site ID: S2017WA011008

Pedon ID: S2017WA011008

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	354.0	21						well		

Oi--0 to 3 centimeters (0.0 to 1.2 inches); slightly decomposed plant material; abrupt smooth boundary.

A1--3 to 16 centimeters (1.2 to 6.3 inches); medial loam, very dark brown (7.5YR 2.5/2) broken face, moist; 28 percent sand; 24 percent clay; strong fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; weakly smeary; common very fine roots and few medium roots and common fine roots and few coarse roots; many very fine irregular pores; clear smooth boundary.

A2--16 to 34 centimeters (6.3 to 13.4 inches); medial loam, dark brown (7.5YR 3/3) broken face, moist; 28 percent sand; 24 percent clay; strong fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; weakly smeary; common very fine roots and common medium roots and few coarse roots; many very fine tubular and common very fine irregular pores; gradual wavy boundary.

AB--34 to 61 centimeters (13.4 to 24.0 inches); medial loam, dark brown (7.5YR 3/4) broken face, moist; 25 percent sand; 27 percent clay; moderate medium subangular blocky structure; moderately hard, friable, slightly sticky, moderately plastic; weakly smeary; few very fine roots and common medium roots and few fine roots; many very fine tubular and common very fine tubular pores; gradual wavy boundary.

Bw--61 to 100 centimeters (24.0 to 39.4 inches); medial silty clay loam, dark brown (7.5YR 3/4) broken face, moist; 20 percent sand; 28 percent clay; moderate medium subangular blocky structure; hard, firm, slightly sticky, moderately plastic; weakly smeary; few very fine roots; many very fine tubular and common fine tubular pores; .

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 19 2017

Describer: Daniel Ufnar

NEON Plot ID: ABBY_009

Site ID: S2017WA011009

Pedon ID: S2017WA011009

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Kinney

Classification: Fine-loamy, isotic, mesic Andic Humudepts

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of hills
on backslope of side slope of hillslope terrace

Upslope Shape: convex

Cross Slope Shape: convex

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: andic soil properties 0 to 25 cm.
umbric epipedon 0 to 57 cm.
cambic horizon 57 to cm.

Country:

State: Washington

County: Clark

MLRA: 3 -- Olympic and Cascade Mountains

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7654770

Std Longitude: -122.2994770

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: Douglas-fir, foxglove, oxeeye
daisy, western brackenfern

Parent Material: colluvium derived from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
22.0	551.0	211						well		

A1--0 to 7 centimeters (0.0 to 2.8 inches); very dark brown (10YR 2/2) broken face gravelly medial loam, dark brown (10YR 3/3) broken face, dry; 40 percent sand; 19 percent clay; strong fine granular structure; soft, very friable, nonsticky, slightly plastic; weakly smeary; many very fine roots and few fine roots; many very fine irregular pores; 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 10 percent nonflat indurated 20 to 75-millimeter Andesite fragments; abrupt smooth boundary.

A2--7 to 25 centimeters (2.8 to 9.8 inches); very dark brown (10YR 2/2) broken face gravelly medial loam, dark brown (10YR 3/3) broken face, dry; 40 percent sand; 20 percent clay; strong fine granular structure; slightly hard, friable, nonsticky, slightly plastic; weakly smeary; common very fine roots and few fine roots; many very fine irregular and few medium irregular and few medium tubular pores; 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 15 percent nonflat indurated 20 to 75-millimeter Andesite fragments; gradual wavy boundary.

AB--25 to 57 centimeters (9.8 to 22.4 inches); very dark grayish brown (10YR 3/2) broken face very gravelly loam, brown (10YR 4/3) broken face, dry; 40 percent sand; 22 percent clay; moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; few very fine roots and few fine roots; common very fine tubular and few medium irregular pores; 10 percent nonflat indurated 20 to 75-millimeter Andesite fragments and 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 10 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 10 percent nonflat indurated 75 to 250-millimeter Andesite fragments; gradual wavy boundary.

Bw--57 to 100 centimeters (22.4 to 39.4 inches); very dark grayish brown (10YR 3/2) broken face very gravelly loam; 40 percent sand; 26 percent clay; weak fine subangular blocky structure; slightly hard, firm, slightly sticky, slightly plastic; 5 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 10 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 15 percent nonflat indurated 20 to 75-millimeter Andesite fragments.

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 20 2017

Describer: Max Ross

NEON Plot ID: ABBY_011

Site ID: S2017WA011011

Pedon ID: S2017WA011011

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Kinney

Classification: Fine-loamy, isotic, mesic Andic Humudepts

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of hillslope
on backslope of side slope of hills

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: umbric epipedon 0 to 49 cm.
andic soil properties 0 to 20 cm.
cambic horizon 49 to cm.
lithologic discontinuity 49 to cm.

Country:

State: Washington

County: Clark

MLRA: 3 -- Olympic and Cascade Mountains

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7434460

Std Longitude: -122.3587610

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: Douglas-fir, salal,
salmonberry, western brackenfern, western
swordfern

Parent Material: volcanic ash mixed with colluvium
over residuum weathered from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Cont. Site ID: S2017WA011011

Pedon ID: S2017WA011011

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
27.0	476.9	2						well		

A--0 to 20 centimeters (0.0 to 7.9 inches); very dark grayish brown (10YR 3/2) broken face medial silt loam; 20 percent sand; 20 percent clay; strong fine granular structure; soft, very friable, slightly sticky, slightly plastic; weakly smeary; many very fine roots and few medium roots and many fine roots; common fine irregular pores; 5 percent nonflat indurated 75 to 250-millimeter Andesite fragments; clear smooth boundary.

Bw1--20 to 38 centimeters (7.9 to 15.0 inches); very dark brown (7.5YR 2.5/3) broken face loam; 45 percent sand; 25 percent clay; strong fine subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; few medium roots and common fine roots; common fine irregular and few fine tubular pores; 5 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 5 percent nonflat indurated 250 to 600-millimeter Andesite fragments; clear smooth boundary.

Bw2--38 to 49 centimeters (15.0 to 19.3 inches); very dark brown (7.5YR 2.5/3) broken face silty clay loam; 45 percent sand; 22 percent clay; moderate fine subangular blocky structure; moderately hard, friable, slightly sticky, slightly plastic; few medium roots and few fine roots; few fine tubular and few fine irregular pores; 5 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 5 percent nonflat indurated 250 to 600-millimeter Andesite fragments; abrupt wavy boundary.

2BC--49 to 100 centimeters (19.3 to 39.4 inches); very dark brown (10YR 2/2) broken face silty clay loam; 45 percent sand; 31 percent clay; strong medium subangular blocky structure; hard, very firm, slightly sticky, slightly plastic; few medium roots and few coarse roots; few fine tubular pores; .

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 20 2017

Describer: Daniel Ufnar

NEON Plot ID: ABBY_016

Site ID: S2017WA011016

Pedon ID: S2017WA011016

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Ferteg

Classification: Medial over loamy-skeletal, amorphous over isotropic, mesic
Aquic Haploxerands

Soil Name as Correlated:

Classification:

Pedon Type: taxadjunct to the series

Pedon Purpose: laboratory sampling site

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on toeslope of side slope of hillslope
on toeslope of side slope of hills

Upslope Shape: linear

Cross Slope Shape: concave

Particle Size Control Section: 3 to 103 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon to cm.
andic soil properties 3 to 75 cm.
cambic horizon 17 to 75 cm.
lithologic discontinuity 75 to cm.
redox concentrations 75 to cm.
redox depletions with chroma 2 or less 75 to cm.
aquic conditions 75 to cm.

Country:

State: Washington

County: Clark

MLRA: 2 -- Willamette and Puget Sound Valleys

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7468580

Std Longitude: -122.3324070

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: deer fern, red huckleberry,
salal, vine maple, western brackenfern, western
hemlock, western swordfern

Parent Material: volcanic ash mixed with alluvium
over alpine glacial drift

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

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	387.0	313						moderately well		

Oi--0 to 3 centimeters (0.0 to 1.2 inches); slightly decomposed plant material; abrupt smooth boundary.

A--3 to 17 centimeters (1.2 to 6.7 inches); medial silt loam, dark brown (10YR 3/3) broken face, moist; 20 percent sand; 21 percent clay; strong fine granular structure; soft, very friable, slightly sticky, slightly plastic; weakly smeary; few very coarse roots and many medium roots and common fine roots and few coarse roots; many very fine irregular pores; gradual wavy boundary.

Bw1--17 to 46 centimeters (6.7 to 18.1 inches); medial silt loam, dark yellowish brown (10YR 4/6) broken face, moist; 20 percent sand; 25 percent clay; moderate very fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; weakly smeary; common very fine roots and common medium roots and few coarse roots; common very fine irregular and few medium tubular and few medium tubular pores; gradual wavy boundary.

Bw2--46 to 75 centimeters (18.1 to 29.5 inches); medial loam, dark yellowish brown (10YR 3/4) broken face, moist; 30 percent sand; 22 percent clay; moderate very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; weakly smeary; common very fine roots and few very coarse roots and common medium roots and common fine roots and common coarse roots; many very fine tubular and few fine irregular pores; abrupt wavy boundary.

2Cg--75 to 100 centimeters (29.5 to 39.4 inches); very gravelly loam, light olive brown (2.5Y 5/6) broken face, moist; 30 percent sand; 32 percent clay; massive; moderately hard, firm, slightly sticky, moderately plastic; few medium roots and few fine roots; few very fine tubular pores; 2 percent fine prominent 2.5Y 4/1), moist, iron depletions Throughout and 15 percent medium prominent 10YR 6/8), moist, masses of oxidized iron Throughout; 5 percent nonflat indurated 2 to 5-millimeter Mixed rock fragments and 10 percent nonflat indurated 75 to 250-millimeter Mixed rock fragments and 15 percent nonflat indurated 5 to 20-millimeter Mixed rock fragments and 20 percent nonflat indurated 20 to 75-millimeter Mixed rock fragments.

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 18 2007

Describer: Jason Martin

NEON Plot ID: ABBY_017

Site ID: S2017WA011017

Pedon ID: S2017WA011017

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Kinney

Classification: Fine-loamy, isotic, mesic Andic Humudepts

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of hill
on backslope of side slope of hillslope

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 32 to 107 cm.

Description origin: NASIS

Diagnostic Features: umbric epipedon 7 to 36 cm.
andic soil properties 7 to 36 cm.
cambic horizon 36 to cm.

Country:

State: Washington

County: Clark

MLRA: 3 -- Olympic and Cascade Mountains

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7726120

Std Longitude: -122.3699010

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: Cascade barberry, Cascara
buckthorn, Douglas-fir, salal, salmonberry, wall-
lettuce, western brackenfern, western hemlock,
western swordfern

Parent Material: colluvium derived from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
43.0	515.3	50						well		

Oi--0 to 7 centimeters (0.0 to 2.8 inches); slightly decomposed plant material; many very fine roots and many fine roots; .

A--7 to 19 centimeters (2.8 to 7.5 inches); dark brown (7.5YR 3/2) broken face medial loam; 40 percent sand; 16 percent clay; weak fine granular structure; soft, very friable, nonsticky, nonplastic; weakly smeary; .

AB--19 to 36 centimeters (7.5 to 14.2 inches); dark brown (7.5YR 3/2) broken face medial loam; 30 percent sand; 17 percent clay; moderate fine granular structure; soft, very friable, nonsticky, nonplastic; weakly smeary; common very fine roots and common medium roots and common fine roots and few coarse roots; 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments.

Bw1--36 to 62 centimeters (14.2 to 24.4 inches); dark brown (7.5YR 3/4) broken face silty clay loam; 15 percent sand; 32 percent clay; strong medium subangular blocky structure; slightly hard, very friable, slightly sticky, slightly plastic; few medium roots and few coarse roots; .

Bw2--62 to 78 centimeters (24.4 to 30.7 inches); dark brown (7.5YR 3/4) broken face silty clay loam; 15 percent sand; 28 percent clay; moderate medium subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; few medium roots and few fine roots and few coarse roots; 2 percent nonflat indurated 75 to 250-millimeter Andesite fragments.

Bw3--78 to 100 centimeters (30.7 to 39.4 inches); dark brown (7.5YR 3/3) broken face silty clay loam; 15 percent sand; 32 percent clay; strong coarse subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; few very fine roots and few medium roots and common fine roots and few coarse roots; common medium tubular and few fine irregular pores; .

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 19 2017

Describer: Daniel Ufnar

NEON Plot ID: ABBY_019

Site ID: S2017WA011019

Pedon ID: S2017WA011019

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Cinebar

Classification: Medial, mixed, mesic Humic Haploxerands

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on shoulder of nose slope of hillslope
on shoulder of nose slope of hills

Upslope Shape: linear

Cross Slope Shape: concave

Particle Size Control Section: 0 to 100 cm.

Description origin: NASIS

Diagnostic Features: andic soil properties 0 to cm.
umbric epipedon 0 to 25 cm.
cambic horizon 25 to cm.

Country:

State: Washington

County: Clark

MLRA: 2 -- Willamette and Puget Sound Valleys

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7524770

Std Longitude: -122.3260530

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: California blackberry,
Cascara buckthorn, Douglas-fir, fireweed, foxglove,
salal, western brackenfern

Parent Material: volcanic ash mixed with colluvium
derived from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Cont. Site ID: S2017WA011019

Pedon ID: S2017WA011019

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
22.0	431.0	224						well		

A--0 to 9 centimeters (0.0 to 3.5 inches); medial loam, very dark brown (7.5YR 2.5/3) broken face, moist; 35 percent sand; 18 percent clay; strong fine granular structure; soft, very friable, nonsticky, slightly plastic; moderately smeary; many very fine roots and common fine roots and few coarse roots; many very fine irregular and few coarse irregular pores; 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments; abrupt irregular boundary.

AB--9 to 25 centimeters (3.5 to 9.8 inches); medial silt loam, dark brown (7.5YR 3/3) broken face, moist; 25 percent sand; 22 percent clay; strong fine granular structure; slightly hard, friable, slightly sticky, slightly plastic; moderately smeary; many very fine roots and few very coarse roots and few medium roots and common fine roots; many very fine tubular pores; 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments; gradual wavy boundary.

Bw1--25 to 69 centimeters (9.8 to 27.2 inches); medial silt loam, reddish brown (5YR 4/4) broken face, moist; 20 percent sand; 25 percent clay; moderate medium subangular blocky structure; moderately hard, friable, slightly sticky, moderately plastic; moderately smeary; few very fine roots and few medium roots and few fine roots; common very fine tubular and few medium tubular pores; gradual wavy boundary.

Bw2--69 to 100 centimeters (27.2 to 39.4 inches); medial silt loam, strong brown (7.5YR 4/6) broken face, moist; 20 percent sand; 24 percent clay; weak medium subangular blocky structure; slightly hard, very friable, slightly sticky, moderately plastic; moderately smeary; few very fine roots; common very fine tubular pores; .

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 19 2017

Describer: Daniel Ufnar

NEON Plot ID: ABBY_020

Site ID: S2017WA011020

Pedon ID: S2017WA011020

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Kinney

Classification: Fine-loamy, isotic, mesic Vitrandic Humudepts

Soil Name as Correlated:

Classification:

Pedon Type: taxadjunct to the series

Pedon Purpose: laboratory sampling site

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of hills
on backslope of side slope of hillslope

Upslope Shape: linear

Cross Slope Shape: concave

Particle Size Control Section: 28 to 103 cm.

Description origin: NASIS

Diagnostic Features: andic soil properties 3 to 18 cm.
umbric epipedon 3 to 46 cm.
lithologic discontinuity 18 to cm.
cambic horizon 46 to cm.

Country:

State: Washington

County: Clark

MLRA: 3 -- Olympic and Cascade Mountains

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7676300

Std Longitude: -122.3034680

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: beaked hazelnut, Cascade
barberry, currant, Douglas-fir, oceanspray, red
huckleberry, vine maple, western swordfern

Parent Material: colluvium derived from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
31.0	503.0	261						well		

Oi--0 to 3 centimeters (0.0 to 1.2 inches); slightly decomposed plant material; abrupt smooth boundary.

A1--3 to 18 centimeters (1.2 to 7.1 inches); very dark brown (7.5YR 2.5/2) broken face gravelly medial loam; 40 percent sand; 18 percent clay; strong fine granular structure; soft, very friable, slightly sticky, nonplastic; weakly smeary; many very fine roots and many medium roots and common fine roots and few coarse roots; many very fine irregular and few medium irregular pores; 2 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 20 to 75-millimeter Andesite fragments and 15 percent nonflat indurated 75 to 250-millimeter Andesite fragments; gradual wavy boundary.

2A2--18 to 46 centimeters (7.1 to 18.1 inches); very dark brown (7.5YR 2.5/3) broken face very cobbly loam; 35 percent sand; 19 percent clay; strong fine granular structure; soft, very friable, slightly sticky, slightly plastic; common very fine roots and common medium roots and common fine roots; many very fine irregular and few medium irregular pores; 5 percent nonflat indurated 20 to 75-millimeter Andesite fragments and 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 5 percent nonflat indurated 250 to 600-millimeter Andesite fragments and 25 percent nonflat indurated 75 to 250-millimeter Andesite fragments; abrupt wavy boundary.

2Bw1--46 to 89 centimeters (18.1 to 35.0 inches); dark brown (7.5YR 3/3) broken face gravelly loam; 35 percent sand; 22 percent clay; moderate very fine subangular blocky structure; moderately hard, friable, slightly sticky, slightly plastic; common very fine roots and few medium roots and common fine roots; common very fine tubular pores; 1 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 2 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 10 percent nonflat indurated 20 to 75-millimeter Andesite fragments; gradual wavy boundary.

2Bw2--89 to 100 centimeters (35.0 to 39.4 inches); dark brown (7.5YR 3/3) broken face loam; 38 percent sand; 22 percent clay; moderate fine subangular blocky structure; moderately hard, friable, slightly sticky, slightly plastic; common very fine roots; common very fine tubular pores; 1 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 1 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 2 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 10 percent nonflat indurated 20 to 75-millimeter Andesite fragments.

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 20 2017

Describer: Daniel Ufnar

NEON Plot ID: ABBY_021

Site ID: S2017WA011021

Pedon ID: S2017WA011021

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Cinebar

Classification: Medial, mixed, mesic Humic Haploxerands

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of hills
on backslope of side slope of hillslope

Upslope Shape: linear

Cross Slope Shape: concave

Particle Size Control Section: 4 to 104 cm.

Description origin: NASIS

Diagnostic Features: andic soil properties 4 to cm.
umbric epipedon 4 to 35 cm.
cambic horizon 35 to cm.

Country:

State: Washington

County: Clark

MLRA: 2 -- Willamette and Puget Sound Valleys

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7438130

Std Longitude: -122.3171250

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: Douglas-fir, fireweed, salal,
western brackenfern

Parent Material: volcanic ash mixed with colluvium
derived from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
19.0	501.0	245						well		

Oi--0 to 4 centimeters (0.0 to 1.6 inches); slightly decomposed plant material; abrupt smooth boundary.

A--4 to 18 centimeters (1.6 to 7.1 inches); dark yellowish brown (10YR 4/4) broken face medial silt loam, dark brown (10YR 3/3) broken face, moist; 20 percent sand; 20 percent clay; strong fine granular structure; slightly hard, friable, slightly sticky, nonplastic; weakly smeary; many very fine roots and few medium roots; common very fine irregular and few coarse irregular pores; 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 20 to 75-millimeter Andesite fragments and 5 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 5 percent nonflat indurated 250 to 600-millimeter Andesite fragments and 10 percent nonflat indurated 5 to 20-millimeter Andesite fragments; abrupt wavy boundary.

AB--18 to 35 centimeters (7.1 to 13.8 inches); dark yellowish brown (10YR 4/6) broken face medial silt loam, dark brown (10YR 3/3) broken face, moist; 24 percent sand; 22 percent clay; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky, nonplastic; weakly smeary; few very fine roots and common medium roots and common fine roots; common very fine tubular pores; 5 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 5 percent nonflat indurated 250 to 600-millimeter Andesite fragments and 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 20 to 75-millimeter Andesite fragments and 10 percent nonflat indurated 5 to 20-millimeter Andesite fragments; gradual wavy boundary.

Bw1--35 to 67 centimeters (13.8 to 26.4 inches); medial clay loam, brown (7.5YR 4/4) broken face, moist; 30 percent sand; 30 percent clay; moderate fine subangular blocky structure; moderately hard, friable, slightly sticky, moderately plastic; weakly smeary; few very fine roots; few very fine tubular pores; 1 percent nonflat indurated 20 to 75-millimeter Andesite fragments and 5 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments; clear wavy boundary.

Bw2--67 to 100 centimeters (26.4 to 39.4 inches); medial clay loam, brown (7.5YR 4/4) broken face, moist; 30 percent sand; 32 percent clay; weak medium subangular blocky structure; moderately hard, firm, slightly sticky, moderately plastic; weakly smeary; few very fine roots; few very fine tubular pores; 5 percent nonflat indurated 250 to 600-millimeter Andesite fragments and 5 percent nonflat indurated 20 to 75-millimeter Andesite fragments and 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 10 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 15 percent nonflat indurated 75 to 250-millimeter Andesite fragments.

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 19 2017

Describer: Jason Martin

NEON Plot ID: ABBY_023

Site ID: S2017WA011023

Pedon ID: S2017WA011023

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Kinney

Classification: Fine-loamy, isotic, mesic Andic Humudepts

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of hills
on backslope of side slope of hillslope

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: umbric epipedon 0 to 46 cm.
andic soil properties 0 to 21 cm.
cambic horizon 46 to cm.
lithologic discontinuity 46 to cm.

Country:

State: Washington

County: Clark

MLRA: 3 -- Olympic and Cascade Mountains

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7444140

Std Longitude: -122.3817810

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: California blackberry,
Douglas-fir, red elderberry, red huckleberry,
redwood-sorrel, salal, salmonberry, Saskatoon
serviceberry, threepetal bedstraw, vine maple,
western hemlock, western redcedar, western
swordfern

Parent Material: colluvium derived from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Cont. Site ID: S2017WA011023

Pedon ID: S2017WA011023

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
15.0	506.5	220						well		

A--0 to 21 centimeters (0.0 to 8.3 inches); very dark grayish brown (10YR 3/2) broken face medial silt loam; 20 percent sand; 20 percent clay; weak medium subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; weakly smeary; many very fine roots and common medium roots and common fine roots and common coarse roots; many fine tubular and common fine irregular pores; clear wavy boundary.

Bw1--21 to 46 centimeters (8.3 to 18.1 inches); dark brown (10YR 3/3) broken face loam; 45 percent sand; 22 percent clay; weak medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine roots and few medium roots and common fine roots; common fine tubular and common fine irregular pores; 5 percent nonflat indurated 20 to 75-millimeter Andesite fragments; clear wavy boundary.

2Bw2--46 to 100 centimeters (18.1 to 39.4 inches); dark brown (7.5YR 3/4) broken face very stony silty clay loam; 15 percent sand; 24 percent clay; weak medium subangular blocky structure; slightly hard, friable, very sticky, moderately plastic; few fine roots; few fine tubular and common fine irregular pores; 20 percent nonflat indurated 250 to 600-millimeter Andesite fragments and 25 percent nonflat indurated 75 to 250-millimeter Andesite fragments.

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 18 2017

Describer: Jason Martin

NEON Plot ID: ABBY_026

Site ID: S2017WA011026

Pedon ID: S2017WA011026

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Kinney

Classification: Fine-loamy, isotic, mesic Andic Humudepts

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on toeslope of base slope of hillslope
on toeslope of base slope of hills

Upslope Shape: concave

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: umbric epipedon 0 to 51 cm.
andic soil properties 0 to 21 cm.
cambic horizon 51 to 71 cm.
paralithic materials 71 to cm.
lithologic discontinuity 71 to cm.

Country:

State: Washington

County: Clark

MLRA: 3 -- Olympic and Cascade Mountains

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7700010

Std Longitude: -122.3876710

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: Douglas-fir, salal,
salmonberry, western brackenfern, western
hemlock, western swordfern

Parent Material: volcanic ash mixed with colluvium
over residuum weathered from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Cont. Site ID: S2017WA011026

Pedon ID: S2017WA011026

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	486.6	150						moderately well		

A--0 to 7 centimeters (0.0 to 2.8 inches); very dark grayish brown (10YR 3/2) broken face medial loam; 45 percent sand; 20 percent clay; strong fine granular structure; slightly hard, very friable, slightly sticky, slightly plastic; weakly smeary; many very fine roots and common medium roots and many fine roots and few coarse roots; clear smooth boundary.

BA--7 to 19 centimeters (2.8 to 7.5 inches); very dark grayish brown (10YR 3/2) broken face medial silt loam; 25 percent sand; 24 percent clay; strong medium subangular blocky structure; moderately hard, friable, slightly sticky, nonplastic; weakly smeary; common very fine roots and common medium roots and common fine roots; clear wavy boundary.

Bw1--19 to 51 centimeters (7.5 to 20.1 inches); dark brown (10YR 3/3) broken face clay loam; 25 percent sand; 31 percent clay; strong coarse subangular blocky structure; moderately hard, friable, slightly sticky, nonplastic; common very fine roots and few medium roots and common fine roots and few coarse roots; clear smooth boundary.

Bw2--51 to 71 centimeters (20.1 to 28.0 inches); dark yellowish brown (10YR 3/4) broken face clay loam; 40 percent sand; 30 percent clay; strong medium subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; few medium roots and few fine roots; clear smooth boundary.

2C--71 to 100 centimeters (28.0 to 39.4 inches); 60 percent reddish brown (5YR 4/4) broken face and 30 percent very dark gray (10YR 3/1) broken face and 10 percent red (2.5YR 4/6) broken face loam; 50 percent sand; 17 percent clay; slightly hard, very friable, slightly sticky, nonplastic; few fine roots; 10 percent nonflat moderately cemented 2 to 5-millimeter Andesite fragments.

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018
Description Date: Jul 18 2017
Describer: Daniel Ufnar
NEON Plot ID: ABBY_028
Site ID: S2017WA011028

Pedon ID: S2017WA011028

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Huss

Classification: Medial-skeletal, amorphic, mesic Typic Hapludands

Soil Name as Correlated:

Classification:

Pedon Type: taxadjunct to the series

Pedon Purpose: laboratory sampling site

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of side slope of hills
on backslope of side slope of hillslope

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section: 0 to 85 cm.

Description origin: NASIS

Diagnostic Features: andic soil properties 0 to 51 cm.
 umbric epipedon 0 to 51 cm.
 lithologic discontinuity 51 to cm.
 cambic horizon 51 to 85 cm.
 lithologic discontinuity 85 to cm.
 lithic contact 85 to cm.

Country:

State: Washington

County: Clark

MLRA: 3 -- Olympic and Cascade Mountains

Soil Survey Area: WA011 -- Clark County, Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7452420

Std Longitude: -122.3759000

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: bedstraw, California blackberry, Cascara buckthorn, Douglas-fir, Pacific dogwood, red huckleberry, salal, vine maple, western brackenfern, western hemlock, western swordfern

Parent Material: volcanic ash mixed with colluvium over residuum weathered from andesite

Bedrock Kind: Andesite

Bedrock Depth: 85 centimeters

Bedrock Hardness: indurated

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
85		bedrock, lithic	Indurated

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	599.0	315						well		

A1--0 to 14 centimeters (0.0 to 5.5 inches); very dark brown (7.5YR 2.5/3) broken face gravelly medial loam; 35 percent sand; 19 percent clay; moderate fine granular structure; soft, very friable, nonsticky, slightly plastic; weakly smeary; many very fine roots and common medium roots and common fine roots and few coarse roots; 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 10 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 10 percent nonflat indurated 20 to 75-millimeter Andesite fragments; clear smooth boundary.

A2--14 to 36 centimeters (5.5 to 14.2 inches); dark brown (10YR 3/3) broken face very gravelly medial silt loam; 30 percent sand; 19 percent clay; strong very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; weakly smeary; few very coarse roots and few medium roots and common fine roots; 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 20 percent nonflat indurated 20 to 75-millimeter Andesite fragments; gradual wavy boundary.

Bw--36 to 51 centimeters (14.2 to 20.1 inches); dark yellowish brown (10YR 3/4) broken face very gravelly medial silt loam; 28 percent sand; 20 percent clay; moderate very fine subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; weakly smeary; common very fine roots and few medium roots and common fine roots and few coarse roots; 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments and 10 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 15 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 20 percent nonflat indurated 20 to 75-millimeter Andesite fragments; gradual wavy boundary.

2BC--51 to 85 centimeters (20.1 to 33.5 inches); dark yellowish brown (10YR 3/4) broken face extremely gravelly silt loam; 22 percent sand; 23 percent clay; weak very fine subangular blocky structure; hard, firm, slightly sticky, slightly plastic; few very fine roots and few very coarse roots; 1 percent nonflat indurated 250 to 600-millimeter Andesite fragments and 15 percent nonflat indurated 75 to 250-millimeter Andesite fragments and 25 percent nonflat indurated 20 to 75-millimeter Andesite fragments; abrupt wavy boundary.

3R--85 centimeters (33.5 inches); .

PEDON DESCRIPTION -- NEON Site ABBY

Print Date: Oct 6 2018

Description Date: Jul 19 2017

Describer: Jason Martin

NEON Plot ID: ABBY_063

Site ID: S2017WA011063

Pedon ID: S2017WA011063

Site Note:

Pedon Note:

Lab Source ID:

Lab Pedon #:

Soil Name as Described/Sampled: Cinebar

Classification: Medial, mixed, mesic Humic Haploxerands

Soil Name as Correlated:

Classification:

Pedon Type: correlates to named soil

Pedon Purpose: laboratory sampling site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on summit of crest of hills
on summit of crest of hillslope

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 2 to 102 cm.

Description origin: NASIS

Diagnostic Features: umbric epipedon 2 to 48 cm.
andic soil properties 2 to cm.
cambic horizon 48 to cm.

Country:

State: Washington

County: Clark

MLRA: 2 -- Willamette and Puget Sound Valleys

Soil Survey Area: WA011 -- Clark County,
Washington

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 45.7603860

Std Longitude: -122.3302010

Latitude:

Longitude:

Datum: WGS84

UTM Zone:

UTM Easting:

UTM Northing:

Primary Earth Cover:

Secondary Earth Cover:

Existing Vegetation: California blackberry,
Douglas-fir, red alder, western brackenfern

Parent Material: volcanic ash mixed with colluvium
derived from andesite

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: MLRA01_Portland

Cont. Site ID: S2017WA011063

Pedon ID: S2017WA011063

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
4.0	363.9	0						well		

Oi--0 to 2 centimeters (0.0 to 0.8 inches); slightly decomposed plant material; clear smooth boundary.

A--2 to 20 centimeters (0.8 to 7.9 inches); dark brown (7.5YR 3/3) broken face medial loam, very dark brown (10YR 2/2) broken face, moist; 50 percent sand; 16 percent clay; moderate fine granular structure; soft, very friable, nonsticky, nonplastic; weakly smeary; common fine roots and few coarse roots; clear smooth boundary.

AB--20 to 48 centimeters (7.9 to 18.9 inches); medial loam, very dark brown (10YR 2/2) broken face, moist; 45 percent sand; 20 percent clay; moderate fine subangular blocky structure; soft, very friable, nonsticky, nonplastic; weakly smeary; common fine roots and common coarse roots; 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments; gradual smooth boundary.

Bw1--48 to 79 centimeters (18.9 to 31.1 inches); medial clay loam, dark brown (7.5YR 3/4) broken face, moist; 30 percent sand; 28 percent clay; moderate fine subangular blocky structure; slightly hard, very friable, moderately sticky, moderately plastic; weakly smeary; common fine roots and common coarse roots; 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments; clear smooth boundary.

Bw2--79 to 100 centimeters (31.1 to 39.4 inches); medial clay loam, 85 percent brown (7.5YR 4/3) broken face and 10 percent dark reddish brown (5YR 3/4) broken face and 5 percent light olive brown (2.5Y 5/4) broken face, moist; 25 percent sand; 32 percent clay; moderate fine subangular blocky structure; slightly hard, very friable, moderately sticky, moderately plastic; weakly smeary; few medium roots and few fine roots; 5 percent nonflat indurated 2 to 5-millimeter Andesite fragments and 5 percent nonflat indurated 5 to 20-millimeter Andesite fragments.