

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Dec 4 2017
Describer: Bill Svetlik
NEON Plot ID: SRER_004
Site ID: S2017AZ019004

Pedon ID: S2017AZ019004

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0738

Soil Name as Described/Sampled: Nahda

Classification: Clayey-skeletal, mixed, superactive, thermic Argic Petrocalcids

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of intermontane basin
on tread of fan remnant

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 3 to 38 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 3 cm.
argillic horizon 3 to 38 cm.
petrocalcic horizon 38 to cm.

Country:

State: Arizona

County: Pima

MLRA: 40 -- Sonoran Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts of Cochise and Pima Counties, Arizona
8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.9068056

Std Longitude: -110.8154167

Latitude: 31 degrees 54 minutes 24.50 seconds north

Longitude: 110 degrees 48 minutes 55.50 seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from igneous, metamorphic and sedimentary rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 45.0 percent nonflat subrounded indurated 2- to 75-millimeter Mixed rock fragments and 8.0 percent nonflat subrounded indurated 75- to 250-millimeter Mixed rock fragments

Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
38		petrocalcic	Very strongly cemented

Cont. Site ID: S2017AZ019004

Pedon ID: S2017AZ019004

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	1,045.0	217								

A--0 to 3 centimeters (0.0 to 1.2 inches); strong brown (7.5YR 4/6) gravelly sandy loam, dark brown (7.5YR 3/4), moist; 75 percent sand; 13 percent silt; 12 percent clay; weak thin platy, and weak fine granular structure; soft, very friable, nonsticky, nonplastic; common very fine roots throughout; many fine irregular pores; 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 20 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; very slight effervescence, by HCl, unspecified; slightly alkaline, pH 7.6, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04439

Bt1--3 to 8 centimeters (1.2 to 3.1 inches); strong brown (7.5YR 4/6) very gravelly sandy clay loam, dark brown (7.5YR 3/4), moist; 60 percent sand; 14 percent silt; 26 percent clay; moderate very fine subangular blocky, and moderate fine subangular blocky structure; slightly hard, friable, moderately sticky, moderately plastic; common very fine roots throughout and common fine roots throughout; many very fine tubular and many fine tubular pores; 30 percent distinct clay films on all faces of peds; 10 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 30 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly alkaline, pH 7.6, pH indicator solutions; clear wavy boundary. Lab sample # 18N04440

Bt2--8 to 38 centimeters (3.1 to 15.0 inches); reddish brown (5YR 4/4) very cobbly sandy clay, brown (7.5YR 4/4), moist; 50 percent sand; 2 percent silt; 48 percent clay; moderate very fine subangular blocky, and moderate fine subangular blocky structure; hard, firm, very sticky, very plastic; many very fine roots throughout and few medium roots throughout and many fine roots throughout and few coarse roots throughout; many very fine irregular and many very fine tubular and many fine tubular pores; 60 percent distinct clay films on all faces of peds and 60 percent distinct clay films on rock fragments; 25 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 25 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; strong effervescence, by HCl, unspecified; slightly alkaline, pH 7.4, pH indicator solutions; abrupt wavy boundary. Lab sample # 18N04441

Bkkm--38 to 100 centimeters (15.0 to 39.4 inches); , by HCl, unspecified. Lab sample # 18N04482

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Dec 6 2017
Describer: Bill Svetlik
NEON Plot ID: SRER_007
Site ID: S2017AZ019007

Pedon ID: S2017AZ019007

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0739

Soil Name as Described/Sampled: Hayhook

Classification: Coarse-loamy, mixed, superactive, thermic Typic Haplocambids

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of intermontane basin on tread of fan remnant

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 33 cm.
cambic horizon 33 to 102 cm.

Country:

State: Arizona

County: Pima

MLRA: 40 -- Sonoran Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts of Cochise and Pima Counties, Arizona
8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.8976944

Std Longitude: -110.8752222

Latitude: 31 degrees 53 minutes 51.70 seconds north

Longitude: 110 degrees 52 minutes 30.80 seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from igneous, metamorphic and sedimentary rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 5.0 percent nonflat subrounded indurated 2- to 75-millimeter Mixed rock fragments

Description database: KSSL

Cont. Site ID: S2017AZ019007

Pedon ID: S2017AZ019007

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	938.0	315								

A1--0 to 3 centimeters (0.0 to 1.2 inches); brown (7.5YR 5/4) loamy sand, brown (7.5YR 4/4), moist; 85 percent sand; 10 percent silt; 5 percent clay; weak fine granular, and moderate medium platy structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout; many very fine irregular and many very fine vesicular pores; 3 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 7.0, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04442

A2--3 to 33 centimeters (1.2 to 13.0 inches); brown (7.5YR 5/4) loamy sand, dark brown (7.5YR 3/4), moist; 85 percent sand; 10 percent silt; 5 percent clay; moderate very fine subangular blocky, and moderate fine subangular blocky structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout and few fine roots throughout; many very fine irregular pores; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 7.0, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04443

Bw--33 to 69 centimeters (13.0 to 27.2 inches); reddish brown (5YR 4/4) loamy sand, dark reddish brown (5YR 3/4), moist; 85 percent sand; 6 percent silt; 9 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; slightly hard, friable, nonsticky, nonplastic; common very fine roots throughout and few medium roots throughout; many very fine interstitial and many fine interstitial pores; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 7.2, pH indicator solutions; abrupt wavy boundary. Lab sample # 18N04444

C--69 to 102 centimeters (27.2 to 40.2 inches); reddish brown (5YR 4/4) loamy sand, dark reddish brown (5YR 3/4), moist; 87 percent sand; 8 percent silt; 5 percent clay; structureless massive; loose, loose, nonsticky, nonplastic; common very fine roots throughout; many fine interstitial pores; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly alkaline, pH 7.4, pH indicator solutions. Lab sample # 18N04445

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Dec 8 2017
Describer: Samantha Carrillo
NEON Plot ID: SRER_013

Site ID: S2017AZ019013

Pedon ID: S2017AZ019013

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0740

Soil Name as Described/Sampled: Combate

Classification: Coarse-loamy, mixed, superactive, nonacid, thermic Ustic
Torrifluvents

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of alluvial fan
on tread of intermontane basin

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 5 cm.

Country:

State: Arizona

County: Pima

MLRA: 41 -- Southeastern Arizona Basin and
Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts
of Cochise and Pima Counties, Arizona
8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.8098056

Std Longitude: -110.8938889

Latitude: 31 degrees 48 minutes 35.30 seconds
north

Longitude: 110 degrees 53 minutes 38.00
seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from
igneous, metamorphic and sedimentary rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 2.0 percent nonflat
subrounded indurated 2- to 75-millimeter Mixed
rock fragments

Description database: KSSL

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
6.0	1,066.2	247								

C1--0 to 5 centimeters (0.0 to 2.0 inches); brown (7.5YR 4/4) loamy sand, dark brown (7.5YR 3/3), moist; 80 percent sand; 10 percent silt; 10 percent clay; moderate thick platy parts to weak medium subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; few very fine roots throughout; many fine irregular pores; 5 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly acid, pH 6.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04446

C2--5 to 52 centimeters (2.0 to 20.5 inches); dark yellowish brown (10YR 3/4) gravelly sandy loam, very dark brown (7.5YR 2.5/3), moist; 75 percent sand; 15 percent silt; 10 percent clay; weak medium subangular blocky parts to weak fine subangular blocky structure; slightly hard, very friable, nonsticky, nonplastic; many very fine roots throughout and few fine roots throughout and few coarse roots throughout; common medium tubular and many fine irregular pores; 18 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly acid, pH 6.2, pH indicator solutions; clear smooth boundary. Lab sample # 18N04447

C3--52 to 83 centimeters (20.5 to 32.7 inches); brown (7.5YR 5/4) very gravelly loamy sand, dark brown (7.5YR 3/3), moist; 83 percent sand; 7 percent silt; 10 percent clay; structureless massive parts to structureless single grain; soft, very friable, nonsticky, nonplastic; few very fine roots throughout and few medium roots throughout and few fine roots throughout; many fine irregular pores; 5 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 30 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 6.6, pH indicator solutions; clear smooth boundary. Lab sample # 18N04448

C4--83 to 102 centimeters (32.7 to 40.2 inches); brown (7.5YR 5/4) gravelly loamy sand, dark brown (7.5YR 3/3), moist; 80 percent sand; 13 percent silt; 7 percent clay; structureless massive parts to structureless single grain; soft, very friable, nonsticky, nonplastic; common very fine roots throughout; many fine irregular pores; 2 percent nonflat subangular indurated 75 to 250-millimeter Mixed rock fragments and 20 percent nonflat subangular indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 6.6, pH indicator solutions. Lab sample # 18N04449

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Dec 5 2017
Describer: Bill Svetlik
NEON Plot ID: SRER_014
Site ID: S2017AZ019014

Pedon ID: S2017AZ019014

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0741

Soil Name as Described/Sampled: Sandy Haplocambids

Classification: Sandy, mixed, superactive, thermic Typic Haplocambids

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: taxon above family

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on riser of alluvial fan
on riser of intermontane basin

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 3 cm.
cambic horizon 3 to 76 cm.

Country:

State: Arizona

County: Pima

MLRA: 40 -- Sonoran Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts
of Cochise and Pima Counties, Arizona
8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.8739444

Std Longitude: -110.8870833

Latitude: 31 degrees 52 minutes 26.20 seconds
north

Longitude: 110 degrees 53 minutes 13.50
seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from
igneous, metamorphic and sedimentary rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments:

Description database: KSSL

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
3.0	964.7	317								

A--0 to 3 centimeters (0.0 to 1.2 inches); brown (7.5YR 4/4) loamy sand, dark brown (7.5YR 3/4), moist; 85 percent sand; 10 percent silt; 5 percent clay; weak fine granular, and weak thin platy structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout; common very fine tubular and common very fine interstitial pores; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 7.0, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04450

Bw1--3 to 30 centimeters (1.2 to 11.8 inches); brown (7.5YR 4/4) loamy sand, dark brown (7.5YR 3/4), moist; 85 percent sand; 10 percent silt; 5 percent clay; moderate very fine subangular blocky, and moderate fine subangular blocky structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout and few medium roots throughout and many fine roots throughout; common very fine interstitial pores; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 7.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04451

Bw2--30 to 76 centimeters (11.8 to 29.9 inches); dark reddish brown (5YR 3/4) loamy sand, dark reddish brown (5YR 3/4), moist; 85 percent sand; 7 percent silt; 8 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; slightly hard, friable, nonsticky, nonplastic; many very fine roots throughout and few medium roots throughout and many fine roots throughout; many very fine tubular pores; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly alkaline, pH 7.4, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04452

2C--76 to 102 centimeters (29.9 to 40.2 inches); dark reddish brown (5YR 3/4) gravelly coarse sand, dark reddish brown (5YR 3/4), moist; 93 percent sand; 3 percent silt; 4 percent clay; structureless massive; loose, loose, nonsticky, nonplastic; many very fine roots throughout and many fine roots throughout; many very fine interstitial pores; 20 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly alkaline, pH 7.6, pH indicator solutions. Lab sample # 18N04453

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Nov 20 2017
Describer: Samantha Carrillo
NEON Plot ID: SRER_018
Site ID: S2017AZ019018

Pedon ID: S2017AZ019018

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0742

Soil Name as Described/Sampled: Fine-loamy Haplocambids

Classification: Fine-loamy, mixed, superactive, calcareous, thermic Typic
Torrifluvents

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: taxon above family

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of None Assigned

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country:

State: Arizona

County: Pima

MLRA: 40 -- Sonoran Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts
of Cochise and Pima Counties, Arizona
8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.8978611

Std Longitude: -110.9082778

Latitude: 31 degrees 53 minutes 52.30 seconds
north

Longitude: 110 degrees 54 minutes 29.80
seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from
igneous, metamorphic and sedimentary rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 12.0 percent nonflat
subrounded indurated 2- to 75-millimeter Mixed
rock fragments

Description database: KSSL

Cont. Site ID: S2017AZ019018

Pedon ID: S2017AZ019018

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	900.3	225								

C--0 to 10 centimeters (0.0 to 3.9 inches); yellowish brown (10YR 5/6) gravelly loamy sand, dark yellowish brown (10YR 3/6), moist; 85 percent sand; 10 percent silt; 5 percent clay; structureless single grain; loose, loose, nonsticky, nonplastic; many fine roots throughout; many fine irregular pores; 30 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly alkaline, pH 7.4, pH indicator solutions; clear smooth boundary. Lab sample # 18N04454

2C1--10 to 33 centimeters (3.9 to 13.0 inches); brown (7.5YR 5/4) loam, dark brown (7.5YR 3/4), moist; 45 percent sand; 37 percent silt; 18 percent clay; moderate thin platy parts to weak medium subangular blocky structure; soft, very friable, slightly sticky, slightly plastic; common fine roots throughout; common fine tubular pores; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; strong effervescence, by HCl, unspecified; moderately alkaline, pH 8.4, pH indicator solutions; clear smooth boundary. Lab sample # 18N04455

2C2--33 to 77 centimeters (13.0 to 30.3 inches); dark yellowish brown (10YR 4/6) silt loam, dark yellowish brown (10YR 3/4), moist; 25 percent sand; 55 percent silt; 20 percent clay; moderate medium subangular blocky, and moderate coarse subangular blocky structure; slightly hard, friable, slightly sticky, moderately plastic; few medium roots throughout and common fine roots throughout; common fine tubular pores; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; slight effervescence, by HCl, unspecified; moderately alkaline, pH 8.2, pH indicator solutions; clear smooth boundary. Lab sample # 18N04456

2C3--77 to 100 centimeters (30.3 to 39.4 inches); brown (7.5YR 4/4) silty clay loam, dark brown (7.5YR 3/3), moist; 15 percent sand; 50 percent silt; 35 percent clay; structureless massive parts to moderate medium subangular blocky; hard, very firm, slightly sticky, moderately plastic; common fine roots throughout and few coarse roots throughout; few fine tubular pores; 30 percent carbonate coats on surfaces along pores; 10 percent fine carbonate masses in matrix; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; slight effervescence, by HCl, unspecified; moderately alkaline, pH 8.0, pH indicator solutions. Lab sample # 18N04457

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Nov 9 2017
Describer: Bill Svetlik
NEON Plot ID: SRER_023

Site ID: S2017AZ019023

Pedon ID: S2017AZ019023

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0743

Soil Name as Described/Sampled: Sandy Haplocambids

Classification: Sandy, mixed, superactive, thermic Ustic Haplocambids

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: taxon above family

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of intermontane basin
on tread of fan remnant

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 8 cm.
cambic horizon 8 to 102 cm.

Country:

State: Arizona

County: Pima

MLRA: 41 -- Southeastern Arizona Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts of Cochise and Pima Counties, Arizona
8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.8525833

Std Longitude: -110.8579722

Latitude: 31 degrees 51 minutes 9.30 seconds north

Longitude: 110 degrees 51 minutes 28.70 seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from igneous, metamorphic and sedimentary rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 8.0 percent nonflat subrounded indurated 2- to 75-millimeter Mixed rock fragments

Description database: KSSL

Cont. Site ID: S2017AZ019023

Pedon ID: S2017AZ019023

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
3.1	1,064.0	293								

C--0 to 8 centimeters (0.0 to 3.1 inches); brown (7.5YR 5/4) coarse sand, dark brown (7.5YR 3/4), moist; 93 percent sand; 4 percent silt; 3 percent clay; weak fine platy, and weak fine granular structure; soft, very friable, nonsticky, nonplastic; common very fine roots throughout; many very fine irregular pores; 3 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly acid, pH 6.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04458

Bw1--8 to 46 centimeters (3.1 to 18.1 inches); brown (7.5YR 4/3) coarse sand, dark brown (7.5YR 3/3), moist; 90 percent sand; 5 percent silt; 5 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout; common fine tubular pores; 3 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly acid, pH 6.4, pH indicator solutions; clear smooth boundary. Lab sample # 18N04459

Bw2--46 to 86 centimeters (18.1 to 33.9 inches); dark reddish brown (5YR 3/3) loamy sand, dark reddish brown (5YR 3/3), moist; 85 percent sand; 8 percent silt; 7 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; slightly hard, friable, nonsticky, nonplastic; many very fine roots throughout and many fine roots throughout; common fine tubular pores; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 6.6, pH indicator solutions; clear smooth boundary. Lab sample # 18N04460

Bw3--86 to 102 centimeters (33.9 to 40.2 inches); reddish brown (5YR 4/3) loamy sand, dark reddish brown (5YR 3/4), moist; 85 percent sand; 8 percent silt; 7 percent clay; weak very fine subangular blocky structure; slightly hard, friable, nonsticky, nonplastic; common very fine roots throughout and common fine roots throughout; many very fine tubular pores; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 6.6, pH indicator solutions. Lab sample # 18N04461

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Dec 7 2017
Describer: Bill Svetlik
NEON Plot ID: SRER_024

Site ID: S2017AZ019024

Pedon ID: S2017AZ019024

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0744

Soil Name as Described/Sampled: Baboquivari

Classification: Fine-loamy, mixed, superactive, thermic Ustic Haplargids

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of intermontane basin
on tread of fan remnant

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 5 to 55 cm.

Description origin: NASIS

Diagnostic Features: ? to ? cm.

Country:

State: Arizona

County: Pima

MLRA: 41 -- Southeastern Arizona Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts of Cochise and Pima Counties, Arizona
8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.8136389

Std Longitude: -110.8067500

Latitude: 31 degrees 48 minutes 49.10 seconds north

Longitude: 110 degrees 48 minutes 24.30 seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from igneous, metamorphic and sedimentary rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 17.0 percent nonflat subrounded indurated 2- to 75-millimeter Mixed rock fragments

Description database: KSSL

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
2.0	1,327.3	248								

A--0 to 5 centimeters (0.0 to 2.0 inches); brown (7.5YR 5/4) loamy sand, dark brown (7.5YR 3/3), moist; 80 percent sand; 15 percent silt; 5 percent clay; moderate thick platy, and weak fine granular structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout and many fine roots throughout; many fine irregular pores; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly acid, pH 6.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04462

Bt1--5 to 20 centimeters (2.0 to 7.9 inches); strong brown (7.5YR 4/6) loamy sand, dark brown (7.5YR 3/4), moist; 80 percent sand; 12 percent silt; 8 percent clay; moderate very fine subangular blocky, and moderate fine subangular blocky structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout; many very fine irregular pores; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly acid, pH 6.4, pH indicator solutions; clear smooth boundary. Lab sample # 18N04463

Bt2--20 to 36 centimeters (7.9 to 14.2 inches); reddish brown (5YR 4/4) sandy loam, brown (7.5YR 4/4), moist; 75 percent sand; 7 percent silt; 18 percent clay; moderate very fine subangular blocky, and moderate fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; common very fine roots throughout; many very fine irregular pores; 3 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly acid, pH 6.4, pH indicator solutions; clear smooth boundary. Lab sample # 18N04464

2Bt--36 to 102 centimeters (14.2 to 40.2 inches); brown (7.5YR 5/4) sandy clay, strong brown (7.5YR 4/6), moist; 50 percent sand; 10 percent silt; 40 percent clay; moderate fine angular blocky, and moderate medium angular blocky structure; very hard, firm, moderately sticky, slightly plastic; few very fine roots throughout; many very fine irregular pores; 2 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 6.8, pH indicator solutions. Lab sample # 18N04465

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Nov 8 2017
Describer: Bill Svetlik
NEON Plot ID: SRER_026

Site ID: S2017AZ019026

Pedon ID: S2017AZ019026

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0745

Soil Name as Described/Sampled: Bodecker

Classification: Sandy-skeletal, mixed, thermic Ustic Torrifluvents

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of None Assigned

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 8 cm.

Country:

State: Arizona

County: Pima

MLRA: 41 -- Southeastern Arizona Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts of Cochise and Pima Counties, Arizona
8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.8333333

Std Longitude: -110.8437500

Latitude: 31 degrees 50 minutes 0.00 seconds north

Longitude: 110 degrees 50 minutes 37.50 seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from igneous and metamorphic rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 17.0 percent nonflat subrounded indurated 2- to 75-millimeter Mixed rock fragments

Description database: KSSL

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
5.0	1,160.2	352								

C1--0 to 8 centimeters (0.0 to 3.1 inches); dark brown (10YR 3/3) coarse sand, very dark brown (10YR 2/2), moist; 93 percent sand; 4 percent silt; 3 percent clay; weak fine granular structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout; many very fine interstitial pores; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; moderately acid, pH 6.0, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04466

C2--8 to 41 centimeters (3.1 to 16.1 inches); dark brown (10YR 3/3) gravelly coarse sand, very dark brown (10YR 2/2), moist; 93 percent sand; 2 percent silt; 5 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; soft, very friable, nonsticky, nonplastic; common very fine roots throughout and few coarse roots throughout; many very fine interstitial pores; 15 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 7.2, pH indicator solutions; clear smooth boundary. Lab sample # 18N04467

C3--41 to 82 centimeters (16.1 to 32.3 inches); dark yellowish brown (10YR 3/4) gravelly coarse sand, very dark brown (10YR 2/2), moist; 92 percent sand; 3 percent silt; 5 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; soft, very friable, nonsticky, nonplastic; few medium roots throughout and few fine roots throughout; many very fine interstitial pores; 30 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 7.0, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04468

C4--82 to 102 centimeters (32.3 to 40.2 inches); brown (10YR 4/3) extremely cobbly coarse sand, dark yellowish brown (10YR 3/4), moist; 92 percent sand; 5 percent silt; 3 percent clay; structureless massive; loose, loose, nonsticky, nonplastic; few very fine roots throughout; many very fine interstitial pores; 30 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 35 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 7.0, pH indicator solutions. Lab sample # 18N04469

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Nov 7 2017
Describer: Bill Svetlik
NEON Plot ID: SRER_043
Site ID: S2017AZ019043

Pedon ID: S2017AZ019043

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0749

Soil Name as Described/Sampled: Rillino

Classification: Coarse-loamy, mixed, superactive, thermic Typic Haplocalcids

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of None Assigned

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 5 cm.
cambic horizon 5 to 33 cm.
calcic horizon 33 to 100 cm.

Country:

State: Arizona

County: Pima

MLRA: 40 -- Sonoran Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts of Cochise and Pima Counties, Arizona
8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.9100000

Std Longitude: -110.8373333

Latitude: 31 degrees 54 minutes 36.00 seconds north

Longitude: 110 degrees 50 minutes 14.40 seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from igneous and metamorphic rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 13.0 percent nonflat subrounded indurated 2- to 75-millimeter Mixed rock fragments

Description database: KSSL

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
4.0	995.2	259								

A--0 to 5 centimeters (0.0 to 2.0 inches); brown (7.5YR 5/3) loamy sand, brown (7.5YR 4/3), moist; 85 percent sand; 7 percent silt; 8 percent clay; moderate very fine platy, and moderate fine platy structure; soft, very friable, nonsticky, nonplastic; common very fine roots throughout; many very fine vesicular and many very fine irregular pores; 3 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; violent effervescence, by HCl, unspecified; slightly alkaline, pH 7.8, pH indicator solutions; clear smooth boundary. Lab sample # 18N04483

Bw--5 to 33 centimeters (2.0 to 13.0 inches); brown (7.5YR 5/3) sandy loam, brown (7.5YR 4/3), moist; 75 percent sand; 13 percent silt; 12 percent clay; moderate very fine subangular blocky structure; slightly hard, friable, nonsticky, nonplastic; many very fine roots throughout and few fine roots throughout and few coarse roots throughout; common fine tubular pores; 30 percent distinct carbonate coats on rock fragments; 5 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; violent effervescence, by HCl, unspecified; slightly alkaline, pH 7.8, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04484

Bk--33 to 76 centimeters (13.0 to 29.9 inches); light brown (7.5YR 6/3) very gravelly coarse sandy loam, brown (7.5YR 5/3), moist; 80 percent sand; 10 percent silt; 10 percent clay; weak fine subangular blocky structure; soft, friable, nonsticky, nonplastic; common very fine roots throughout and few fine roots throughout; many very fine irregular pores; 60 percent distinct carbonate coats on rock fragments; 30 percent fine distinct irregular carbonate masses in matrix; 10 percent nonflat subrounded indurated 75 to 250-millimeter Mica fragments and 25 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; violent effervescence, by HCl, unspecified; slightly alkaline, pH 7.8, pH indicator solutions; abrupt wavy boundary. Lab sample # 18N04485

2Bk--76 to 102 centimeters (29.9 to 40.2 inches); brown (7.5YR 5/4) sandy loam, brown (7.5YR 4/4), moist; 75 percent sand; 15 percent silt; 10 percent clay; moderate very fine subangular blocky, and moderate fine subangular blocky structure; soft, friable, nonsticky, nonplastic; common very fine roots throughout; many very fine tubular pores; 30 percent prominent carbonate coats on rock fragments; 30 percent very fine distinct irregular carbonate masses in matrix; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; violent effervescence, by HCl, unspecified; slightly alkaline, pH 7.8, pH indicator solutions. Lab sample # 18N04486

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Jan 30 2018
Describer: Bill Svetlik
NEON Plot ID: SRER_003
Site ID: S2018AZ019003

Pedon ID: S2018AZ019003

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0746

Soil Name as Described/Sampled: Hayhook

Classification: Coarse-loamy, mixed, superactive, thermic Typic Haplocambids

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of intermontane basin on tread of fan remnant

Upslope Shape: linear

Cross Slope Shape: linear

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 8 cm.
cambic horizon 8 to 102 cm.

Country:

State: Arizona

County: Pima

MLRA: 40 -- Sonoran Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts of Cochise and Pima Counties, Arizona 8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.8404722

Std Longitude: -110.9170556

Latitude: 31 degrees 50 minutes 25.70 seconds north

Longitude: 110 degrees 55 minutes 1.40 seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from igneous, metamorphic and sedimentary rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 3.0 percent nonflat subangular indurated 2- to 75-millimeter Mixed rock fragments

Description database: KSSL

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
3.0	975.3	360								

A--0 to 8 centimeters (0.0 to 3.1 inches); strong brown (7.5YR 5/6) sandy loam, brown (7.5YR 4/4), moist; 75 percent sand; 18 percent silt; 7 percent clay; moderate thin platy parts to weak fine granular structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout and many fine roots throughout; many very fine irregular and common very fine vesicular pores; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly acid, pH 6.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04470

Bw--8 to 46 centimeters (3.1 to 18.1 inches); brown (7.5YR 5/4) sandy loam, brown (7.5YR 4/4), moist; 73 percent sand; 17 percent silt; 10 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; slightly hard, friable, nonsticky, nonplastic; many very fine roots throughout and common medium roots throughout and many fine roots throughout; many very fine tubular pores; 1 percent clay bridges between sand grains; 2 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 6.6, pH indicator solutions; clear smooth boundary. Lab sample # 18N04471

Bt--46 to 84 centimeters (18.1 to 33.1 inches); strong brown (7.5YR 4/6) sandy loam, brown (7.5YR 4/4), moist; 78 percent sand; 10 percent silt; 12 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; hard, firm, slightly sticky, nonplastic; common very fine roots throughout and common fine roots throughout; many very fine tubular pores; 10 percent clay bridges between sand grains and 10 percent clay films on all faces of peds and 10 percent clay films on rock fragments; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 6.8, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04472

2Bt--84 to 102 centimeters (33.1 to 40.2 inches); strong brown (7.5YR 5/6) gravelly loamy sand, brown (7.5YR 4/4), moist; 85 percent sand; 8 percent silt; 7 percent clay; structureless massive parts to weak medium subangular blocky; loose, loose, nonsticky, nonplastic; common very fine roots throughout and common fine roots throughout; many very fine irregular pores; 10 percent clay films on rock fragments and 10 percent clay bridges between sand grains; 15 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments and 15 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 7.0, pH indicator solutions. Lab sample # 18N04473

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Jan 18 2018
Describer: Bill Svetlik
NEON Plot ID: SRER_008

Site ID: S2018AZ019008

Pedon ID: S2018AZ019008

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0747

Soil Name as Described/Sampled: Eloma

Classification: Clayey-skeletal, mixed, superactive, thermic Ustic Haplargids

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: taxadjunct

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of fan remnant on tread of intermontane basin

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section: 8 to 58 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 20 cm.
 argillic horizon 20 to 102 cm.

Country:

State: Arizona

County: Pima

MLRA: 41 -- Southeastern Arizona Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts of Cochise and Pima Counties, Arizona
 8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.8669167

Std Longitude: -110.8148889

Latitude: 31 degrees 52 minutes 0.90 seconds north

Longitude: 110 degrees 48 minutes 53.60 seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from igneous, metamorphic and sedimentary rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 15.0 percent nonflat subrounded indurated 2- to 75-millimeter Mixed rock fragments

Description database: KSSL

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness
20	102	abrupt textural change	

Cont. Site ID: S2018AZ019008

Pedon ID: S2018AZ019008

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
6.0	1,179.0	270								

A--0 to 5 centimeters (0.0 to 2.0 inches); strong brown (7.5YR 5/6) gravelly loamy sand, brown (7.5YR 4/4), moist; 85 percent sand; 12 percent silt; 3 percent clay; moderate thick platy, and weak fine granular structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout; many very fine irregular and many fine irregular pores; 15 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 6.6, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04474

BA--5 to 20 centimeters (2.0 to 7.9 inches); brown (7.5YR 4/4) and dark brown (7.5YR 3/2) sandy loam; 75 percent sand; 22 percent silt; 8 percent clay; moderate fine subangular blocky, and moderate medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; many very fine roots throughout; many very fine irregular and many fine irregular pores; 10 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 6.6, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04475

Bt1--20 to 45 centimeters (7.9 to 17.7 inches); dark reddish brown (2.5YR 3/4) very gravelly sandy clay, dark reddish brown (5YR 3/4), moist; 48 percent sand; 2 percent silt; 50 percent clay; strong fine subangular blocky, and strong medium subangular blocky structure; hard, firm, moderately sticky, moderately plastic; common very fine roots throughout; many very fine tubular and many fine tubular pores; 60 percent distinct clay films on all faces of peds and 60 percent distinct clay films on rock fragments; 10 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 40 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 6.8, pH indicator solutions; clear smooth boundary. Lab sample # 18N04476

Bt2--45 to 102 centimeters (17.7 to 40.2 inches); dark reddish brown (2.5YR 3/4) very gravelly sandy clay, dark reddish brown (5YR 3/4), moist; 48 percent sand; 2 percent silt; 50 percent clay; strong fine subangular blocky, and strong medium subangular blocky structure; hard, firm, moderately sticky, moderately plastic; few very fine roots throughout; many very fine tubular and many fine tubular pores; 60 percent distinct clay films on all faces of peds and 60 percent distinct clay films on rock fragments; 45 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; neutral, pH 7.0, pH indicator solutions. Lab sample # 18N04477

PEDON DESCRIPTION -- NEON Site SRER

Print Date: Nov 4 2019
Description Date: Feb 1 2018
Describer: Bill Svetlik
NEON Plot ID: SRER_016
Site ID: S2018AZ019016

Pedon ID: S2018AZ019016

Site Note:

Pedon Note:

Lab Source ID: KSSL

Lab Pedon #: 18N0748

Soil Name as Described/Sampled: Redo

Classification: Sandy-skeletal, mixed, thermic Typic Haplocalcids

Soil Name as Correlated:

Classification:

Pedon Type: undefined observation

Pedon Purpose: research site

Taxon Kind: series

Associated Soils:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on tread of intermontane basin
on tread of fan remnant

Upslope Shape: linear

Cross Slope Shape: convex

Particle Size Control Section: 25 to 100 cm.

Description origin: NASIS

Diagnostic Features: ochric epipedon 0 to 25 cm.
calcic horizon 25 to 74 cm.

Country:

State: Arizona

County: Pima

MLRA: 40 -- Sonoran Basin and Range

Soil Survey Area: AZ667 -- Santa Cruz and Parts
of Cochise and Pima Counties, Arizona
8-TUC -- Tucson, Arizona

Map Unit:

Pit Location:

Quad Name:

Std Latitude: 31.9053611

Std Longitude: -110.8469722

Latitude: 31 degrees 54 minutes 19.30 seconds
north

Longitude: 110 degrees 50 minutes 49.10
seconds west

Datum: NAD83

UTM Zone: 12

UTM Easting:

UTM Northing:

Primary Earth Cover: Shrub cover

Secondary Earth Cover: Shrubby rangeland

Existing Vegetation:

Parent Material: mixed alluvium derived from
igneous, metamorphic and sedimentary rock

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 40.0 percent nonflat
subrounded indurated 2- to 75-millimeter Mixed
rock fragments and 10.0 percent nonflat
subrounded indurated 75- to 250-millimeter Mixed
rock fragments

Description database: KSSL

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost-Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
5.0	980.9	220								

A--0 to 8 centimeters (0.0 to 3.1 inches); yellowish brown (10YR 5/4) gravelly sandy loam, dark yellowish brown (10YR 3/4), moist; 75 percent sand; 17 percent silt; 8 percent clay; weak thick platy parts to weak fine subangular blocky structure; soft, very friable, nonsticky, nonplastic; many very fine roots throughout; many very fine tubular and many very fine vesicular pores; 5 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 15 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly alkaline, pH 7.6, pH indicator solutions; clear smooth boundary. Lab sample # 18N04478

Bw--8 to 25 centimeters (3.1 to 9.8 inches); brown (7.5YR 4/4) extremely gravelly sandy loam, dark brown (7.5YR 3/3), moist; 75 percent sand; 17 percent silt; 8 percent clay; structureless massive parts to weak medium subangular blocky; soft, very friable, nonsticky, nonplastic; many very fine roots throughout and common medium roots throughout and few coarse roots throughout; many very fine irregular pores; 30 percent faint carbonate coats on rock fragments; 20 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 45 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; noneffervescent, by HCl, unspecified; slightly alkaline, pH 7.6, pH indicator solutions; abrupt wavy boundary. Lab sample # 18N04479

Bkk--25 to 74 centimeters (9.8 to 29.1 inches); light brown (7.5YR 6/4) extremely gravelly loamy sand, brown (7.5YR 4/4), moist; 90 percent sand; 3 percent silt; 7 percent clay; structureless massive, and weak medium subangular blocky; loose, loose, nonsticky, nonplastic; many very fine roots throughout and few medium roots throughout and many fine roots throughout; many fine irregular pores; 60 percent faint carbonate coats on rock fragments; 25 percent fine carbonate masses in matrix and 25 percent medium carbonate masses in matrix; 10 percent nonflat subrounded indurated 75 to 250-millimeter Mixed rock fragments and 65 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; violent effervescence, by HCl, unspecified; moderately alkaline, pH 8.2, pH indicator solutions; abrupt smooth boundary. Lab sample # 18N04480

2Ck--74 to 100 centimeters (29.1 to 39.4 inches); brown (7.5YR 5/4) very gravelly coarse sand, brown (7.5YR 4/4), moist; 90 percent sand; 5 percent silt; 5 percent clay; structureless massive; loose, loose, nonsticky, nonplastic; many very fine roots throughout and few medium roots throughout and many fine roots throughout; many fine irregular pores; 30 percent faint carbonate coats on rock fragments; 10 percent fine carbonate masses in matrix and 10 percent medium carbonate masses in matrix; 45 percent nonflat subrounded indurated 2 to 75-millimeter Mixed rock fragments; violent effervescence, by HCl, unspecified; moderately alkaline, pH 8.2, pH indicator solutions. Lab sample # 18N04481