

# Monthly Summaries of Soil Temperature and Soil Moisture at Sites in China: Soil Characteristics

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# Fenghuoshan station

Description Date: 08/02/1999                      Print Date: 05/28/2002  
Describer: C.L. Ping, W.J. Akin, O. Chadwick, X. Nan, L. Qing, L. Zhao

Site ID: 99FN280003  
Site Note:  
Pedon ID: 99FN280003                      Pedon Rec ID: 108,662  
Lab Pedon #: 00P0394                      Lab Source ID: SSL

Soil Name as Described/Sampled: Funhoshan  
Soil Name as Correlated:  
Classification:

Pedon Type:                                      Pedon Purpose:  
Taxon Kind:

Location Information:                              State: Foreign (not Used)  
County:  
MLRA:  
Soil Survey Area:  
Map Unit:  
USGS 7.5 Minute Quadrangle Name:

Location Description:  
Legal Description:

Latitude: 35 degrees 43 minutes 48.60 seconds north  
Longitude: 92 degrees 53 minutes 30.80 seconds east  
Datum:  
UTM Zone:                      UTM Easting:                      UTM Northing:

Physiographic Division:  
Physiographic Province:  
Physiographic Section:  
State Physiographic Area:  
Local Physiographic Area:

Geomorphic Setting: None Assigned  
Slope Shapes - Up: convex                      Across: convex

Earth Covers - Primary:                      Secondary:

Geographically Associated Soils:

Site Observations  
Plants:  
Observed moisture state:

Parent Material:  
Geologic Formation:  
Bedrock Kind:  
Bedrock Depth:  
Bedrock Hardness:  
Bedrock Fracture Interval:

Surface Fragments: 0 percent

Particle Size Control Section:

Diagnostic Features:

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness

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	4,760.0	270						well		

A1--0 to 8 cm; brown (7.5YR 4/3), silt loam; 8 percent clay; weak fine subangular blocky and granular structure; friable, nonsticky, nonplastic; many very fine and fine roots and few medium roots; clear smooth boundary. Lab sample # 00P2074

A2--8 to 24 cm; brown (10YR 4/3), silt loam; 12 percent clay; weak fine granular and weak fine platy structure; very friable, nonsticky, slightly plastic; many very fine and fine roots and medium roots and few coarse roots; clear smooth boundary. Lab sample # 00P2075

2Bt1--24 to 40 cm; reddish brown (5YR 4/3), silt loam; 18 percent clay; firm, slightly sticky; 30 percent discontinuous faint clay films on all faces of peds; clear smooth boundary. Lab sample # 00P2076

2Bt2--40 to 53 cm; dark reddish brown (5YR 3/3), silty clay loam, light reddish brown (5YR 6/3), dry; 33 percent clay; firm; 30 percent discontinuous distinct clay films on all faces of peds; clear smooth boundary. Lab sample # 00P2077

2Bt3--53 to 77 cm; reddish brown (5YR 4/4), sandy clay loam, light reddish brown (5YR 6/3), dry; 28 percent clay; firm, very plastic; few fine and medium roots; 10 percent patchy faint clay films on all faces of peds; clear wavy boundary. Lab sample # 00P2078

2Bw1--77 to 105 cm; reddish brown (5YR 4/3), very cobbly silt loam; 20 percent clay; moderate fine and medium subangular blocky structure; firm, slightly sticky; few fine roots; 30 percent faint clay films on all faces of peds; 20 percent 2 to 75 millimeter and 20 percent 75 to 250 millimeter; clear wavy boundary. Lab sample # 00P2079

2Bw2--105 to 117 cm; reddish brown (5YR 4/3), silt loam; 27 percent clay; strong fine and medium subangular blocky structure; firm; 10 percent 2 to 75 millimeter; clear smooth boundary. Lab sample # 00P2080

2BC--117 to 139 cm; dark reddish brown (5YR 3/3), silt loam; 24 percent clay; very firm, very plastic; abrupt smooth boundary. Lab sample # 00P2081

2CF--139 to 160 cm; red (2.5YR 4/6), silt loam; 24 percent clay; moderate medium subangular blocky structure; very firm, very plastic. Lab sample # 00P2082

## Ecology station

Description Date: 08/01/1999

Print Date: 05/28/2002

Describer: C.L. Ping, W.J. Akin, O. Chadwick, X. Nan, L. Qing, L. Zhao

Site ID: 99FN280002

Site Note:

Pedon ID: 99FN280002

Pedon Rec ID: 108,663

Lab Pedon #: 00P0393

Lab Source ID: SSL

Soil Name as Described/Sampled: Ecostation

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose:

Taxon Kind:

Location Information:

County:

State: Foreign (not Used)

MLRA:  
 Soil Survey Area:  
 Map Unit:  
 USGS 7.5 Minute Quadrangle Name:

Location Description:  
 Legal Description:

Latitude: 35 degrees 25 minutes 59.60 seconds north  
 Longitude: 93 degrees 35 minutes 55.60 seconds east  
 Datum:  
 UTM Zone: UTM Easting: UTM Northing:

Physiographic Division:  
 Physiographic Province:  
 Physiographic Section:  
 State Physiographic Area:  
 Local Physiographic Area:

Geomorphic Setting: None Assigned  
 Slope Shapes - Up: linear Across: concave

Earth Covers - Primary: Secondary:

Geographically Associated Soils:

Site Observations  
 Plants:  
 Observed moisture state:

Parent Material:  
 Geologic Formation:  
 Bedrock Kind:  
 Bedrock Depth:  
 Bedrock Hardness:  
 Bedrock Fracture Interval:

Surface Fragments: 0 percent

Particle Size Control Section:

Diagnostic Features:

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness

Cont. Site ID: 99FN280002

Pedon ID: 99FN280002

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	4,550.0	0						excessively		

A1--0 to 10 cm; dark yellowish brown (10YR 4/4), fine sand, light yellowish brown (10YR 6/4), dry; 1 percent clay; moderate medium granular and single grain; friable, nonsticky, nonplastic; fine and medium roots and many very fine roots; clear smooth boundary. Lab sample # 00P2061

A2--10 to 18 cm; dark yellowish brown (10YR 4/4), fine sand, light yellowish brown (10YR 6/4), dry; 1 percent clay; weak fine granular and single grain; very friable, nonsticky, nonplastic; many very fine and fine roots and common medium roots; clear smooth boundary. Lab sample # 00P2062

AC--18 to 39 cm; dark yellowish brown (10YR 4/4), fine sand, light yellowish brown (10YR 6/4), dry; 1 percent clay; massive; very friable, nonsticky, nonplastic; many fine and medium roots; diffuse smooth boundary. Lab sample # 00P2063

C1--39 to 78 cm; dark yellowish brown (10YR 4/6), sand, brownish yellow (10YR 6/6), dry; 1 percent clay; massive; very friable, nonsticky, nonplastic; few fine to coarse roots; abrupt smooth boundary. Lab sample # 00P2064

2C2--78 to 90 cm; 30 percent pale yellow (2.5Y 7/4) and 65 percent light yellowish brown (2.5Y 6/3), sandy loam; 8 percent clay; weak medium and coarse platy structure; firm, slightly sticky, slightly plastic; many fine and medium roots; abrupt smooth boundary. Lab sample # 00P2065

2C3--90 to 109 cm; 5 percent strong brown (7.5YR 4/6) and 30 percent pale yellow (2.5Y 7/3) and 65 percent light olive brown (2.5Y 5/3), fine sandy loam; 6 percent clay; weak medium subangular blocky structure; friable, nonsticky, slightly plastic; common fine and medium roots; abrupt smooth boundary. Lab sample # 00P2066

O1b1--109 to 123 cm; 35 percent very dark grayish brown (2.5Y 3/2) and 65 percent dark grayish brown (2.5Y 4/2), sandy loam; 10 percent clay; massive; very friable, slightly sticky, slightly plastic; clear smooth boundary. Lab sample # 00P2067

Oab1--123 to 144 cm; very dark grayish brown (2.5Y 3/2), mucky silt loam; 8 percent clay; weak medium platy structure; very friable, nonsticky, nonplastic; clear smooth boundary. Lab sample # 00P2068

Oab2--144 to 161 cm; very dark grayish brown (2.5Y 3/2), mucky very fine sandy loam; 3 percent clay; moderate fine platy structure; very friable, nonsticky, nonplastic; abrupt wavy boundary. Lab sample # 00P2069

O1b2--161 to 177 cm; 35 percent grayish brown (10YR 5/2) and 65 percent yellowish brown (10YR 5/8), peat, fine sandy loam; 5 percent clay; weak fine platy structure; very friable, nonsticky, nonplastic; abrupt wavy boundary. Lab sample # 00P2070

3C4--177 to 200 cm; 40 percent brown (10YR 4/3) and 60 percent brown (10YR 5/3), sand; 3 percent clay; nonsticky, nonplastic; abrupt smooth boundary. Lab sample # 00P2071

3C5--200 to 212 cm; brown (10YR 5/3), fine sand; 2 percent clay; weak fine and medium subangular blocky structure; very friable, nonsticky, nonplastic; few fine roots; abrupt wavy boundary. Lab sample # 00P2072

4C6--212 to 255 cm; black (10YR 2/1), gravelly loamy sand; 3 percent clay; massive; very friable, nonsticky, nonplastic; 16 percent 2 to 75 millimeter. Lab sample # 00P2073

5Cf--255 cm; gray (5Y 6/1), silt; massive; firm.

## Wuli site

Description Date: 08/04/1999

Print Date: 05/28/2002

Describer: C.L. Ping, W.J. Akin, O. Chadwick, X. Nan, L. Qing, L. Zhao

Site ID: 99FN280004

Site Note:

Pedon ID: 99FN280004

Pedon Rec ID: 108,664

Lab Pedon #: 00P0395

Lab Source ID: SSL

Soil Name as Described/Sampled: Wuli

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose:

Taxon Kind:

Location Information:

County:

State: Foreign (not Used)

MLRA:

Soil Survey Area:

Map Unit:

USGS 7.5 Minute Quadrangle Name:

Location Description:

Legal Description:

Latitude: 34 degrees 28 minutes 14.30 seconds north

Longitude: 92 degrees 43 minutes 37.10 seconds east

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: None Assigned

Slope Shapes - Up: concave

Across: concave

Earth Covers - Primary:

Secondary:

Geographically Associated Soils:

Site Observations

Plants:

Observed moisture state:

Parent Material:

Geologic Formation:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 0 percent

Particle Size Control Section:

Diagnostic Features:

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness

Cont. Site ID: 99FN280004

Pedon ID: 99FN280004

Slope (%)	Elevation (meters)	Aspect (deg)	MAAT (C)	MSAT (C)	MWAT (C)	MAP (mm)	Frost- Free Days	Drainage Class	Slope Length (meters)	Upslope Length (meters)
1.0	4,597.0	270						moderately well		

A1--0 to 5 cm; brown (7.5YR 4/4), fine sandy loam; 8 percent clay; weak fine platy and weak fine granular structure; very friable, slightly sticky, slightly plastic; many very fine and fine roots; 2 percent 2 to 75 millimeter; abrupt smooth boundary. Lab sample # 00P2083

A2--5 to 9 cm; dark yellowish brown (10YR 4/6), silt loam; 11 percent clay; strong fine platy structure; friable, slightly sticky, slightly plastic; many very fine and fine roots and few medium roots; 2 percent 2 to 75 millimeter; abrupt smooth boundary. Lab sample # 00P2084

2Bt1--9 to 36 cm; brown (7.5YR 4/3), very gravelly clay loam; 34 percent clay; strong medium angular blocky structure; very firm, very sticky, very plastic; many very fine and fine roots and few medium roots; 55 percent 2 to 75 millimeter; gradual smooth boundary. Lab sample # 00P2085

2Bt2--36 to 56 cm; 50 percent brown (7.5YR 4/4) and 50 percent dark yellowish brown (10YR 4/6), very gravelly clay loam; 25 percent clay; moderate medium angular blocky structure; very firm; few very fine and fine roots; 50 percent 2 to 75 millimeter; clear wavy boundary. Lab sample # 00P2086

3Bt3--56 to 100 cm; brown (7.5YR 4/4), extremely gravelly coarse sandy loam; 10 percent clay; weak fine subangular blocky structure; very friable, slightly sticky, slightly plastic; few fine roots and common very fine roots; 60 percent 2 to 75 millimeter; gradual smooth boundary. Lab sample # 00P2087

3Bt4--100 to 114 cm; dark yellowish brown (10YR 4/4), extremely gravelly coarse sandy loam; 5 percent clay; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; few fine roots; 75 percent 2 to 75 millimeter; gradual smooth boundary. Lab sample # 00P2088

3BC--114 to 158 cm; brown (7.5YR 5/4), extremely gravelly coarse sandy loam; 1 percent clay; weak fine subangular blocky structure; very friable, nonsticky, nonplastic; 80 percent 2 to 75 millimeter; abrupt wavy boundary. Lab sample # 00P2089

3C1--158 to 168 cm; yellowish brown (10YR 5/8), extremely gravelly coarse sandy loam; 8 percent clay; weak fine subangular blocky and weak medium granular structure; very friable, slightly sticky, nonplastic; 75 percent 2 to 75 millimeter; abrupt broken boundary. Lab sample # 00P2090

4C2--168 to 173 cm; dark yellowish brown (10YR 4/4), extremely gravelly sand; 1 percent clay; single grain; loose, nonsticky, nonplastic; 80 percent 2 to 75 millimeter; abrupt broken boundary. Lab sample # 00P2091

5C3--173 to 187 cm; yellowish brown (10YR 5/6), gravelly loam; 22 percent clay; 20 percent 2 to 75 millimeter; clear wavy boundary. Lab sample # 00P2092

5Cg1--187 to 200 cm; 5 percent strong brown (7.5YR 5/8) and 45 percent yellowish brown (10YR 5/8) and 50 percent olive yellow (2.5Y 6/6), silt loam, sand; 20 percent clay; friable, slightly sticky; abrupt wavy boundary. Lab sample # 00P2093

5Cg2--200 cm; light brownish gray (2.5Y 6/2); friable, slightly sticky, slightly plastic. Lab sample # 00P2094

## Two Rivers, lower

Description Date: 08/07/1999

Print Date: 05/28/2002

Describer: C.L. Ping, W.J. Akin, O. Chadwick, Q. Lin, X. Nan, L. Zhao

Site ID: 99FN280007

Site Note:

Pedon ID: 99FN280007

Pedon Rec ID: 108,667

Lab Pedon #: 00P0398

Lab Source ID: SSL

Soil Name as Described/Sampled: Two River A

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose:

Taxon Kind:

Location Information:

County:

State: Foreign (not Used)

MLRA:

Soil Survey Area:

Map Unit:

USGS 7.5 Minute Quadrangle Name:

Location Description:

Legal Description:

Latitude: 31 degrees 49 minutes                      seconds north

Longitude: 94 degrees 44 minutes                      seconds east

Datum:  
 UTM Zone:            UTM Easting:            UTM Northing:

Physiographic Division:  
 Physiographic Province:  
 Physiographic Section:  
 State Physiographic Area:  
 Local Physiographic Area:

Geomorphic Setting: on toeslope of None Assigned  
 Slope Shapes - Up: concave            Across: concave

Earth Covers - Primary:            Secondary:

Geographically Associated Soils:

Site Observations  
 Plants:  
 Observed moisture state:

Parent Material:  
 Geologic Formation:  
 Bedrock Kind:  
 Bedrock Depth:  
 Bedrock Hardness:  
 Bedrock Fracture Interval:

Surface Fragments: 0 percent

Particle Size Control Section:

Diagnostic Features:

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness

Cont. Site ID: 99FN280007

Pedon ID: 99FN280007

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		270						poorly	400	300.0

Oa1--0 to 26 cm; very dark brown (10YR 2/2), muck; moderate medium granular structure; very friable, nonsticky, nonplastic; fine and medium roots and many very fine roots; clear wavy boundary. Lab sample # 00P2110

Oa2--26 to 58 cm; very dark brown (10YR 2/2), muck; friable, nonsticky, nonplastic; many very fine and fine roots and common medium roots; clear wavy boundary. Lab sample # 00P2111

Oa3--58 to 74 cm; black (10YR 2/1), muck; friable, nonsticky, nonplastic; many very fine and fine roots; abrupt smooth boundary. Lab sample # 00P2112

Oa4--74 to 81 cm; very dark gray (2.5Y 3/1), muck; moderate fine platy structure; friable, nonsticky, nonplastic; few fine roots and many very fine roots; abrupt smooth boundary. Lab sample # 00P2113

Bg--81 to 102 cm; 40 percent very dark gray (2.5Y 3/1) and 60 percent dark olive brown (2.5Y 3/3), mucky sandy loam; firm, slightly sticky, slightly plastic; many very fine and fine roots; abrupt smooth boundary. Lab sample # 00P2114



Bgf--102 to 110 cm; 20 percent very dark gray (2.5Y 3/1) and 40 percent dark olive brown (2.5Y 3/3) and 40 percent very dark gray (2.5Y 3/1), mucky sandy loam; firm, slightly sticky, slightly plastic; abrupt smooth boundary. Lab sample # 00P2115

Cf1--110 to 115 cm; dark yellowish brown (10YR 4/6), sandy loam; 10 percent clay; firm, slightly sticky, slightly plastic; abrupt smooth boundary. Lab sample # 00P2116

Cf2--115 to 140 cm; olive brown (2.5Y 4/4), sandy loam; 8 percent clay; firm, slightly sticky, nonplastic. Lab sample # 00P2117

## Two Rivers, upper

Description Date: 08/07/1999

Print Date: 05/28/2002

Describer: C.L. Ping, W.J. Akin, O. Chadwick, L. Zhao

Site ID: 99FN280008

Site Note:

Pedon ID: 99FN280008

Pedon Rec ID: 108,668

Lab Pedon #: 00P0399

Lab Source ID: SSL

Soil Name as Described/Sampled: Two River B

Soil Name as Correlated:

Classification:

Pedon Type:

Pedon Purpose:

Taxon Kind:

Location Information:

County:

State: Foreign (not Used)

MLRA:

Soil Survey Area:

Map Unit:

USGS 7.5 Minute Quadrangle Name:

Location Description:

Legal Description:

Latitude: 31 degrees 49 minutes 15.60 seconds north

Longitude: 91 degrees 44 minutes 28.70 seconds east

Datum:

UTM Zone:

UTM Easting:

UTM Northing:

Physiographic Division:

Physiographic Province:

Physiographic Section:

State Physiographic Area:

Local Physiographic Area:

Geomorphic Setting: on backslope of None Assigned

Slope Shapes - Up: convex

Across: convex

Earth Covers - Primary:

Secondary:

Geographically Associated Soils:

Site Observations

Plants:

Observed moisture state:

Parent Material:

Geologic Formation:

Bedrock Kind:

Bedrock Depth:

Bedrock Hardness:

Bedrock Fracture Interval:

Surface Fragments: 8 percent

Particle Size Control Section:

Diagnostic Features:

Top Depth (cm)	Bottom Depth (cm)	Restriction Kind	Restriction Hardness

Cont. Site ID: 99FN280008

Pedon ID: 99FN280008

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	4,850.0	270						well	500	300.0

A--0 to 12 cm; very dark grayish brown (10YR 3/2), fine sandy loam; 3 percent clay; weak fine granular structure; very friable, nonsticky, nonplastic; many very fine and fine roots and few coarse roots; 5 percent 2 to 75 millimeter; abrupt smooth boundary. Lab sample # 00P2118

AB--12 to 26 cm; dark yellowish brown (10YR 3/4), extremely gravelly fine sandy loam; 6 percent clay; moderate medium subangular blocky structure; friable, nonsticky, nonplastic; many very fine and fine roots and few coarse roots; 70 percent 2 to 75 millimeter; abrupt wavy boundary. Lab sample # 00P2119

Bw--26 to 42 cm; dark yellowish brown (10YR 3/4), gravelly fine sandy loam; 15 percent clay; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; many very fine and fine roots; 30 percent 2 to 75 millimeter; clear wavy boundary. Lab sample # 00P2120

2Bt1--42 to 55 cm; brown (7.5YR 4/4), clay loam; 30 percent clay; strong fine and medium subangular blocky structure; firm; fine and medium roots and few very fine roots; clear wavy boundary. Lab sample # 00P2121

2Bt2--55 to 68 cm; brown (7.5YR 4/4), gravelly clay loam; 28 percent clay; strong medium subangular blocky structure; firm; few very fine and fine roots; 15 percent 2 to 75 millimeter; clear wavy boundary. Lab sample # 00P2122

2BC1--68 to 93 cm; brown (7.5YR 4/4), gravelly loam; 18 percent clay; moderate medium subangular blocky structure; firm, slightly plastic; few very fine and fine roots; 16 percent 2 to 75 millimeter; abrupt wavy boundary. Lab sample # 00P2123

3BC2--93 to 107 cm; olive brown (2.5Y 4/3), extremely gravelly sandy loam; 12 percent clay; weak medium subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine and fine roots; 85 percent 2 to 75 millimeter; clear wavy boundary. Lab sample # 00P2124

3Bk1--107 to 129 cm; light olive brown (2.5Y 5/3), extremely gravelly sandy loam; 11 percent clay; moderate medium subangular blocky structure; friable, slightly sticky, slightly plastic; few very fine and fine roots; 80 percent 2 to 75 millimeter; clear wavy boundary. Lab sample # 00P2125

3Bk2--129 to 210 cm; light olive brown (2.5Y 5/3), extremely cobbly coarse sandy loam; 6 percent clay; weak fine subangular blocky structure; friable, nonsticky, nonplastic; 20 percent 2 to 75 millimeter and 60 percent 75 to 250 millimeter. Lab sample # 00P2126



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	2,130.0	116	1.6			300				

A1--0 to 15 cm; very fine sandy loam, very dark brown (10YR 2/2), dry; 15 percent clay; moderate medium granular structure; friable, slightly sticky, slightly plastic; few fine roots and many very fine roots; 5% pebbles and some coal and charcoal particles; clear smooth boundary. Lab sample # 01P1812

A2--15 to 37 cm; sandy loam, very dark brown (10YR 2/2), dry; 12 percent clay; moderate medium subangular blocky and moderate very fine granular structure; friable, slightly sticky, slightly plastic; many very fine roots; 5 percent 2 to 75 millimeter; very abrupt. Lab sample # 01P1813

C1--37 to 40 cm; very gravelly sand; single grain; loose, nonsticky, nonplastic; common very fine roots; concentrated as root mats; (not sampled); very abrupt.

Bwb1--40 to 59 cm; silt loam, dark brown (10YR 3/3), dry; 16 percent clay; strong medium platy structure; firm, slightly sticky, slightly plastic; common very fine roots; 10 percent 2 to 75 millimeter; clear smooth boundary. Lab sample # 01P1814

Bwb2--59 to 71 cm; very fine sandy loam, brown (10YR 4/3), dry; 10 percent clay; massive; friable, slightly sticky, slightly plastic; few fine roots; 10 percent 2 to 75 millimeter; clear smooth boundary. Lab sample # 01P1815

2Bk1--71 to 96 cm; extremely cobbly sand; single grain; loose, nonsticky, nonplastic; many very fine roots; 77% rock fragments by weight; 80% of gravel with carbonates undercutting, reddish brown spuds <0.5 mm in diameter concentrated in the center of undercoating; clear smooth boundary. Lab sample # 01P1816

2Bk2--96 to 135 cm; extremely cobbly sand, very dark gray (2.5Y 3/1), dry; single grain; loose, nonsticky, nonplastic; few very fine roots; 85% rock fragment by weight; 90% of gravel with carbonates undercoating, reddish brown spuds <0.5 mm in diameter concentrated in the center of undercoating; clear smooth boundary. Lab sample # 01P1817

2Bk3--135 to 200 cm; extremely cobbly sand; single grain; loose, nonsticky, nonplastic; 15 percent 250; 85% rock fragment by weight; 95% of gravel with carbonate undercoating, reddish brown spuds <0.5 mm in diameter concentrated in the center of undercoating. Lab sample # 01P1818