

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Sika**

Profile ID <b>Si-A-1</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°24'33"</b>	GPS N <b>06°16'58"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2777</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>20</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-60</b>	<b>60-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5RY3/3</b>	<b>5RY3/3</b>	<b>5RY3/2</b>	<b>5RY4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementatio n	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentratio ns	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

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**Kebele Sika**

Profile ID <b>Si-A-2</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°24'32"</b>	GPS N <b>06°17'10"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2798</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>18</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>	<b>C</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-61</b>	<b>61-90</b>	<b>90-112</b>	<b>112+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	<b>D</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>CL</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>7.5RY3/2</b>	<b>5RY3/3</b>	<b>5RY3/3</b>	<b>5RY4/3</b>	<b>7.5RY3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

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**Description for Bule Woreda**

**Kebele Sika**

Profile ID <b>Si-A-3</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°24'08"</b>	GPS N <b>06°16'54"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2703</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>14</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-68</b>	<b>68-115</b>	<b>115+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>7.5RY3/2</b>	<b>5RY3/3</b>	<b>5RY3/3</b>	<b>5RY4/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

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**Description for Bule Woreda**

**Kebele Sika**

Profile ID <b>Si-A-4</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°24'32"</b>	GPS N <b>06°16'50"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2767</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>LuCo</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>	<b>C</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-53</b>	<b>53-94</b>	<b>94-115</b>	<b>115+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Colour munsell code moist		<b>7.5RY3/2</b>	<b>5RY3/3</b>	<b>5RY3/3</b>	<b>5RY4/3</b>	<b>5RY4/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>		
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>		
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

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**Description for Bule Woreda**

**Kebele Sika**

Profile ID <b>Si-A-5</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°23'47"</b>	GPS N <b>06°16'59"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2651</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>10</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>	<b>C</b>
Depth interval (cm)		<b>0 -16</b>	<b>16-60</b>	<b>60-98</b>	<b>98-115</b>	<b>115+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>SC</b>	<b>CL</b>	<b>C</b>	<b>CL</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>7.5RY3/2</b>	<b>5RY3/3</b>	<b>5RY3/3</b>	<b>5RY4/3</b>	<b>5RY4/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Sika**

Profile ID <b>Si-A-6</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°24'41"</b>	GPS N <b>06°16'43"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2785</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Lower</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>	<b>BC</b>
Depth interval (cm)		<b>0 -17</b>	<b>17-57</b>	<b>57-97</b>	<b>97-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>7.5RY3/3</b>	<b>5RY3/3</b>	<b>5RY3/3</b>	<b>5RY4/3</b>	<b>5RY3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	
Cementation	Nature (t71)					<b>N</b>
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>		
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Sika**

Profile ID <b>Ba-A-7</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°24'28"</b>	GPS N <b>06°16'48"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2751</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>UP</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>9</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>C</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-68</b>	<b>68-112</b>	<b>112+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SC</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5RY3/2</b>	<b>5RY3/3</b>	<b>5RY3/3</b>	<b>5RY4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Sika**

Profile ID <b>Ba-A-8</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°24'33"</b>	GPS N <b>06°16'35"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2767</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>UP</b>		
Position on slope (f2) <b>LP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>9</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-79</b>	<b>79-127</b>	<b>127+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5RY3/2</b>	<b>5RY2.5/2</b>	<b>5RY3/3</b>	<b>5RY4/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)				
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Illalcha**

Profile ID <b>Illa-A-1</b>	Date <b>14-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°25'12"</b>	GPS N <b>06°15'19"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2948</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>5</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-55</b>	<b>55-87</b>	<b>87-129</b>	<b>129+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>7.5YR 4/4</b>	<b>7.5YR4/3</b>	<b>5YR4/3</b>	<b>5YR4/6</b>	<b>5YR4/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Illalcha**

Profile ID <b>IIIa -A-2</b>	Date 14-03-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°25'18"</b>	GPS N <b>06°15'29"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2939</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-59</b>	<b>59-87</b>	<b>87-119</b>	<b>119+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	<b>D</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>7.5YR 4/4</b>	<b>7.5YR4/2</b>	<b>5YR4/3</b>	<b>5YR4/6</b>	<b>5YR4/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Illalcha**

Profile ID <b>Illa -A-3</b>	Date <b>14-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°25'19"</b>	GPS N <b>06°15'39"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2918</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>14</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -15</b>	<b>15-50</b>	<b>50-92</b>	<b>92-120</b>	<b>120+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Colour munsell code moist		<b>7.5YR 4/3</b>	<b>7.5YR4/2</b>	<b>5YR4/3</b>	<b>5YR4/4</b>	<b>5YR4/4</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Illalcha**

Profile ID <b>Illa -A-4</b>	Date 14-03-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°25'19"</b>	GPS N <b>06°15'53"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2936</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>LuCo</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-59</b>	<b>59-95</b>	<b>95-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>7.5YR 4/3</b>	<b>7.5YR4/2</b>	<b>5YR4/4</b>	<b>5YR4/4</b>	<b>5YR4/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				<b>N</b>	
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Illalcha**

Profile ID <b>Illa -A-5</b>	Date <b>14-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°25'13"</b>	GPS N <b>06°16'13"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2853</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>8</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -16</b>	<b>16-60</b>	<b>60-98</b>	<b>98-115</b>	<b>115+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>7.5YR 4/3</b>	<b>7.5YR4/2</b>	<b>5YR4/3</b>	<b>5YR4/6</b>	<b>5YR4/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)					
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Illalcha**

Profile ID <b>Illa -A-6</b>	Date <b>14-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°25'15"</b>	GPS N <b>06°15'59"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2894</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>LL</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>ABt2</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-50</b>	<b>50-95</b>	<b>95-120</b>	<b>120+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>5YR3/4</b>	<b>7.5YR3/3</b>	<b>5YR3/3</b>	<b>2.5YR3/3</b>	<b>5YR4/6</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementatio n	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentratio ns	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Illalcha**

Profile ID <b>Illa -A-7</b>	Date <b>14-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°25'17"</b>	GPS N <b>06°16'23"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2751</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>UP</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>9</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-50</b>	<b>50-81</b>	<b>81-113</b>	<b>113+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SL</b>	<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>5YR3/3</b>	<b>7.5YR3/2</b>	<b>5YR3/3</b>	<b>5YR3/3</b>	<b>5YR4/6</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>		
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					<b>N</b>
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Illalcha**

Profile ID <b>Illa -A-8</b>	Date <b>14-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°25'09"</b>	GPS N <b>06°16'18"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2820</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>UP</b>		
Position on slope (f2) <b>LP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-49</b>	<b>49-81</b>	<b>81-101</b>	<b>101+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>C</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>5YR3/3</b>	<b>7.5YR3/2</b>	<b>2.5YR3/3</b>	<b>5YR3/3</b>	<b>5YR4/6</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>C</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>C</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)					
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					
Diagnostic horizon						
Diagnostic property						
Diagnostic material						

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Dero**

Profile ID <b>De-A-1</b>	Date <b>10-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°21'33"</b>	GPS N <b>06°19'13"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2337</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>Lower</b>		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-75</b>	<b>75-95</b>	<b>95+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5RY3/2</b>	<b>5RY2.5/2</b>	<b>2.5RY3/3</b>	<b>2.5RY3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Dero**

Profile ID <b>De-A-2</b>	Date <b>10-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°21'38"</b>	GPS N <b>06°19'18"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2317</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>Lower</b>		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b> Depth (cm) <b>M</b> Distance (m) <b>C</b>		
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-70</b>	<b>70-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5RY3/2</b>	<b>5RY2.5/2</b>	<b>2.5RY3/3</b>	<b>2.5RY3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Dero**

Profile ID <b>De-A-3</b>	Date <b>10-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°21'42"</b>	GPS N <b>06°18'42"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2217</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>Lower</b>		
Position on slope (f2) <b>M</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b> Depth (cm) <b>M</b> Distance (m) <b>C</b>		
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-75</b>	<b>75-105</b>	<b>105+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5RY3/3</b>	<b>5RY3/2</b>	<b>2.5RY3/3</b>	<b>2.5RY3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)				
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Dero**

Profile ID <b>De-A-4</b>	Date <b>10-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°21'18"</b>	GPS N <b>06°18'22"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2063</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Lower</b>		
Position on slope (f2) <b>M</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>8</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>LuCo</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b> Depth (cm) <b>M</b> Distance (m) <b>C</b>		
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -18</b>	<b>18-65</b>	<b>65-92</b>	<b>92+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>D</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>CL</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>2.5RY3/2</b>	<b>5RY2.5/2</b>	<b>2.5RY3/3</b>	<b>5RY3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Dero**

Profile ID <b>De-A-5</b>	Date <b>10-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°21'14"</b>	GPS N <b>06°18'26"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2174</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Upper</b>		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b> Depth (cm) <b>M</b> Distance (m) <b>C</b>		
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -16</b>	<b>16-60</b>	<b>60-85</b>	<b>85+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>D</b>	
Texture class (f4, t25)		<b>C</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>2.5RY3/2</b>	<b>2.5RY3/2</b>	<b>2.5RY3/3</b>	<b>5RY3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>SST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Dero**

Profile ID <b>De-A-6</b>	Date <b>10-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°21'27"</b>	GPS N <b>06°18'22"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2075</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Lower</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>15</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>B1</b>	<b>B2</b>	<b>B3</b>
Depth interval (cm)		<b>0 -15</b>	<b>15-55</b>	<b>55-97</b>	<b>97+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>C</b>	<b>G</b>	
Texture class (f4, t25)		<b>SC</b>	<b>SCL</b>	<b>SCL</b>	<b>SC</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5RY4/6</b>	<b>5RY3/4</b>	<b>5RY3/3</b>	<b>10RY3/6</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>NST</b> <b>NPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				<b>N</b>
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Dero**

Profile ID <b>De-A-7</b>	Date <b>10-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°21'40"</b>	GPS N <b>06°18'16"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2067</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Lower</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>18</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>B1</b>	<b>B2</b>	<b>B3</b>
Depth interval (cm)		<b>0 -15</b>	<b>15-62</b>	<b>62-102</b>	<b>102+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>C</b>	<b>G</b>	
Texture class (f4, t25)		<b>SC</b>	<b>SC</b>	<b>SCL</b>	<b>SC</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5RY4/6</b>	<b>2.5RY3/4</b>	<b>5RY3/3</b>	<b>2.5RY3/6</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>NST</b> <b>NPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				<b>N</b>
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Dero**

Profile ID <b>De-A-8</b>	Date <b>10-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°21'45"</b>	GPS N <b>06°18'08"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2038</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Upper</b>		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>22</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>B1</b>	<b>B2</b>	<b>B3</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-65</b>	<b>65-95</b>	<b>95+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>C</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SCL</b>	<b>SCL</b>	<b>SC</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5RY4/6</b>	<b>2.5RY3/4</b>	<b>5RY3/3</b>	<b>10RY3/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>NST</b> <b>NPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Basura**

Profile ID <b>Ba-A-1</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°22'55"</b>	GPS N <b>06°19'01"</b>	
(Base) map unit ID	Topography (t7) <b>15-30</b>	Elevation (m.) <b>2479</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>Middle</b>		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>18</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>C</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-60</b>	<b>60-95</b>	<b>95+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5RY3/3</b>	<b>5RY23/2</b>	<b>5RY3/2</b>	<b>5RY2.5/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Basura**

Profile ID <b>Ba-A-2</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°22'49"</b>	GPS N <b>06°19'09"</b>	
(Base) map unit ID	Topography (t7) <b>15-30</b>	Elevation (m.) <b>2439</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>Middle</b>		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-51</b>	<b>51-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>2.5RY3/3</b>	<b>2.5RY3/2</b>	<b>5RY3/2</b>	<b>5RY3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Basura**

Profile ID <b>Ba-A-3</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°22'46"</b>	GPS N <b>06°19'08"</b>	
(Base) map unit ID	Topography (t7) <b>15-30</b>	Elevation (m.) <b>2436</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>Middle</b>		
Position on slope (f2) <b>M</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>15</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-58</b>	<b>58-95</b>	<b>95+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>D</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5RY3/2</b>	<b>5RY3/2</b>	<b>5RY2.5/3</b>	<b>5RY3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Basura**

Profile ID <b>Ba-A-4</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°22'33"</b>	GPS N <b>06°19'05"</b>	
(Base) map unit ID	Topography (t7) <b>15-30</b>	Elevation (m.) <b>2331</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Middle</b>		
Position on slope (f2) <b>M</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>LuCo</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>C1</b>
Depth interval (cm)		<b>0 -18</b>	<b>18-61</b>	<b>61-89</b>	<b>89+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>D</b>	<b>G</b>
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>CL</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>2.5RY3/3</b>	<b>2.5RY3/2</b>	<b>5RY3/2</b>	<b>5RY3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>SST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)				
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Basura**

Profile ID <b>Ba-A-5</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°22'09"</b>	GPS N <b>06°19'05"</b>	
(Base) map unit ID	Topography (t7) <b>15-30</b>	Elevation (m.) <b>2322</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Middle</b>		
Position on slope (f2) <b>M</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>10</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -16</b>	<b>16-60</b>	<b>60-98</b>	<b>98+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>D</b>	
Texture class (f4, t25)		<b>SC</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5RY4/2</b>	<b>5RY3/2</b>	<b>5RY3/2</b>	<b>7.5RY3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Basura**

Profile ID <b>Ba-A-6</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°21'56"</b>	GPS N <b>06°19'09"</b>	
(Base) map unit ID	Topography (t7) <b>15-30</b>	Elevation (m.) <b>2340</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Lower</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>C1</b>
Depth interval (cm)		<b>0 -15</b>	<b>15-65</b>	<b>65-97</b>	<b>97+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>D</b>	<b>G</b>	<b>G</b>
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5RY3/2</b>	<b>5RY2.5/2</b>	<b>5RY3/3</b>	<b>7.5RY3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Basura**

Profile ID <b>Ba-A-7</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°22'14"</b>	GPS N <b>06°18'58"</b>	
(Base) map unit ID	Topography (t7) <b>15-30</b>	Elevation (m.) <b>2336</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Lower</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>8</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>C1</b>
Depth interval (cm)		<b>0 -17</b>	<b>17-68</b>	<b>68-102</b>	<b>102+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	<b>D</b>
Texture class (f4, t25)		<b>SC</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	
Colour munsell code moist		<b>5RY4/2</b>	<b>5RY3/2</b>	<b>5RY3/2</b>	<b>7.5RY3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Bule Woreda**

**Kebele Basura**

Profile ID <b>Ba-A-8</b>	Date <b>11-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Bule</b>	GPS E <b>38°22'14"</b>	GPS N <b>06°18'49"</b>	
(Base) map unit ID	Topography (t7) <b>5-30</b>	Elevation (m.) <b>2257</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, description <b>Middle</b>		
Position on slope (f2) <b>L</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>22</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description		Parent material (t12) <b>I</b>	
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>5</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tiloke</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>C1</b>
Depth interval (cm)		<b>0 -19</b>	<b>19-70</b>	<b>70-102</b>	<b>102+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>C</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>CL</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5RY3/2</b>	<b>5RY2.5/2</b>	<b>5RY3/3</b>	<b>7.5RY3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor enerWoreda**

**Kebele Kerebed**

Profile ID <b>Ke-A-1</b>	Date 20-04-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'40"</b>	GPS N <b>08°02'37"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1977</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-88</b>	<b>88-117</b>	<b>117+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>10YR4/3</b>	<b>5Y6/2</b>	<b>2.5Y4/2</b>	<b>5Y5/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>VPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Enemor enerWoreda**

**Kebele Kerebed**

Profile ID <b>Ke-A-2</b>	Date <b>20-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'27"</b>	GPS N <b>08°02'24"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1980</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tikur Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-80</b>	<b>80-120</b>	<b>120+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>10YR4/2</b>	<b>5Y6/3</b>	<b>2.5Y4/2</b>	<b>5Y5/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Enemor enerWoreda**

**Kebele Kerebed**

Profile ID <b>Ke-A-3</b>	Date 20-04-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'18"</b>	GPS N <b>08°02'30"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1978</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-90</b>	<b>90-122</b>	<b>122+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>10YR4/3</b>	<b>5Y6/3</b>	<b>2.5Y3/2</b>	<b>5Y5/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Enemor enerWoreda**

**Kebele Kerebed**

Profile ID <b>Ke-A-4</b>	Date 20-04-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'13"</b>	GPS N <b>08°02'46"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1974</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -24</b>	<b>24-88</b>	<b>88-118</b>	<b>118+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>10YR4/3</b>	<b>5Y6/2</b>	<b>2.5Y4/2</b>	<b>5Y5/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Enemor enerWoreda**

**Kebele Kerebed**

Profile ID <b>Ke-A-5</b>	Date 20-04-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'03"</b>	GPS N <b>08°02'13"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1984</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-88</b>	<b>88-126</b>	<b>126+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>10YR4/3</b>	<b>5Y6/3</b>	<b>2.5Y3/2</b>	<b>5Y5/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Enemor enerWoreda**

**Kebele Kerebed**

Profile ID <b>Ke-A-6</b>	Date 20-04-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°45'53"</b>	GPS N <b>08°02'27"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1971</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-90</b>	<b>90-127</b>	<b>127+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>10YR4/3</b>	<b>5Y6/3</b>	<b>2.5Y4/2</b>	<b>5Y5/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Enemor enerWoreda**

**Kebele Kerebed**

Profile ID <b>Ke-A-7</b>	Date 20-04-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'07"</b>	GPS N <b>08°02'27"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1970</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -28</b>	<b>28-89</b>	<b>89-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>10YR4/2</b>	<b>5Y6/2</b>	<b>2.5Y3/2</b>	<b>5Y5/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Enemor enerWoreda**

**Kebele Kerebed**

Profile ID <b>Ke-A-8</b>	Date 20-04-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°44'56"</b>	GPS N <b>08°03'05"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1942</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -24</b>	<b>24-88</b>	<b>88-126</b>	<b>126+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>10YR4/3</b>	<b>5Y6/3</b>	<b>2.5Y3/2</b>	<b>5Y5/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for EnemorWoreda**

**Kebele Gomosh**

Profile ID <b>Go-A-1</b>	Date <b>22-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'01"</b>	GPS N <b>08°03'42"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1975</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>S</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Gembena Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -28</b>	<b>28-65</b>	<b>65-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>2.5YR2.5/1</b>	<b>10R2.5/1</b>	<b>2.5YR3/3</b>	<b>2.5YR3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for EnemorWoreda**

**Kebele Gomosh**

Profile ID <b>Go-A-2</b>	Date <b>22-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'15"</b>	GPS N <b>08°03'36"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1978</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>S</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Gembena Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -29</b>	<b>29-75</b>	<b>75-111</b>	<b>111+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>10R2.5/1</b>	<b>10R3/3</b>	<b>2.5YR3/3</b>	<b>2.5YR3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>VPL</b>	<b>ST</b> <b>VPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for EnemorWoreda**

**Kebele Gomosh**

Profile ID <b>Go-A-3</b>	Date <b>22-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'46"</b>	GPS N <b>08°03'28"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1983</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Gembena Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-95</b>	<b>95-122</b>	<b>122+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y6/2</b>	<b>5Y6/2</b>	<b>5Y5/2</b>	<b>10YR4/1</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>VPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>W</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for EnemorWoreda**

**Kebele Gomosh**

Profile ID <b>Go-A-4</b>	Date <b>22-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'37"</b>	GPS N <b>08°03'28"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1977</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Gembena Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -26</b>	<b>26-88</b>	<b>88-118</b>	<b>118+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y6/2</b>	<b>5Y6/1</b>	<b>5Y5/2</b>	<b>5Y4/1</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>VPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>W</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for EnemorWoreda**

**Kebele Gomosh**

Profile ID <b>Go-A-5</b>	Date <b>22-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'43"</b>	GPS N <b>08°03'20"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1981</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Gembena Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-75</b>	<b>75-106</b>	<b>106+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y6/2</b>	<b>5Y6/2</b>	<b>5Y5/2</b>	<b>10YR4/1</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>W</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for EnemorWoreda**

**Kebele Gomosh**

Profile ID <b>Go-A-6</b>	Date <b>22-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berher</b>	GPS E <b>37°43'22"</b>	GPS N <b>08°04'35"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1925</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Gembena Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-90</b>	<b>90-127</b>	<b>127+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y6/2</b>	<b>5Y6/1</b>	<b>5Y5/2</b>	<b>10YR4/1</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>W</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for EnemorWoreda**

**Kebele Gomosh**

Profile ID <b>Go-A-7</b>	Date <b>22-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°44'29"</b>	GPS N <b>08°04'16"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1938</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Gembena Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -24</b>	<b>24-87</b>	<b>87-115</b>	<b>115+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y6/2</b>	<b>5Y6/1</b>	<b>5Y5/1</b>	<b>5Y4/1</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>VPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>W</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for EnemorWoreda**

**Kebele Gomosh**

Profile ID <b>Go-A-8</b>	Date <b>22-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berher</b>	GPS E <b>37°43'41"</b>	GPS N <b>08°04'09"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1901</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Gembena Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-94</b>	<b>94-123</b>	<b>123+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y6/2</b>	<b>5Y6/1</b>	<b>5Y5/1</b>	<b>5Y4/1</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>W</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Kunber**

Profile ID <b>Kun-A-1</b>	Date <b>21-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°52'42"</b>	GPS N <b>07°58'00"</b>	
(Base) map unit ID	Topography (t7) <b>0-5</b>	Elevation (m.) <b>2478</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-55</b>	<b>55-105</b>	<b>105+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>CL</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/1</b>	<b>5YR2.5/2</b>	<b>2.5YR3/3</b>	<b>2.5YR3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>NST</b> <b>NPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Kunber**

Profile ID <b>Kun-A-2</b>	Date <b>21-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°52'44"</b>	GPS N <b>07°57'44"</b>	
(Base) map unit ID	Topography (t7) <b>5-5</b>	Elevation (m.) <b>2500</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>5</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-55</b>	<b>55-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>CL</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/1</b>	<b>5YR2.5/2</b>	<b>5YR3/3</b>	<b>5YR3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>NST</b> <b>NPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Kunber**

Profile ID <b>Kun-A-3</b>	Date <b>21-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°52'31"</b>	GPS N <b>07°57'44"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2471</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-69</b>	<b>69-112</b>	<b>112+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>CL</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/1</b>	<b>5YR2.5/1</b>	<b>2.5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>NPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Kunber**

Profile ID <b>Kun-A-4</b>	Date <b>21-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°52'49"</b>	GPS N <b>07°57'47"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2487</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-62</b>	<b>62-111</b>	<b>111+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/1</b>	<b>5YR2.5/1</b>	<b>5YR3/3</b>	<b>2.5YR3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>NPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Kumber**

Profile ID <b>Kun-A-5</b>	Date <b>21-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°52'53"</b>	GPS N <b>07°57'39"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2490</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -24</b>	<b>24-54</b>	<b>54-107</b>	<b>107+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>CL</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>2.5YR2.5/1</b>	<b>5YR2.5/2</b>	<b>5YR3/4</b>	<b>2.5YR3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>NST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Kumber**

Profile ID <b>Kun-A-6</b>	Date <b>21-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°52'51"</b>	GPS N <b>07°57'34"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2499</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>B t2</b>
Depth interval (cm)		<b>0 -24</b>	<b>24-69</b>	<b>69-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>CL</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>7.5YR3/3</b>	<b>7.5YR3/2</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Kunber**

Profile ID <b>Kun-A-7</b>	Date <b>21-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°53'23"</b>	GPS N <b>07°56'21"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2608</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>5</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-60</b>	<b>60-108</b>	<b>108+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR3/2</b>	<b>7.5YR3/2</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Kumber**

Profile ID <b>Kun-A-8</b>	Date <b>21-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°53'32"</b>	GPS N <b>07°56'44"</b>	
(Base) map unit ID	Topography (t7) <b>0-5</b>	Elevation (m.) <b>2633</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -28</b>	<b>28-62</b>	<b>62-120</b>	<b>120+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/1</b>	<b>5YR2.5/2</b>	<b>2.5YR3/3</b>	<b>2.5YR3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Agata**

Profile ID <b>Aga-A-1</b>	Date <b>19-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°53'07"</b>	GPS N <b>07°57'18"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2533</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>7</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-59</b>	<b>59-105</b>	<b>105+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/1</b>	<b>2.5YR3/4</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Agata**

Profile ID <b>Aga-A-2</b>	Date <b>19-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°53'12"</b>	GPS N <b>07°57'23"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2526</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -24</b>	<b>24-55</b>	<b>55-95</b>	<b>95+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR2.5/1</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Agata**

Profile ID <b>Aga-A-3</b>	Date <b>19-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°53'14"</b>	GPS N <b>07°57'15"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2537</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>7</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-71</b>	<b>71-115</b>	<b>115+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/1</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Agata**

Profile ID <b>Aga-A-4</b>	Date <b>19-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°53'06"</b>	GPS N <b>07°57'06"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2520</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>7</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-69</b>	<b>69-112</b>	<b>112+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/1</b>	<b>2.5YR3/4</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Agata**

Profile ID <b>Aga-A-5</b>	Date <b>19-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°53'13"</b>	GPS N <b>07°56'50"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2554</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>7</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -24</b>	<b>24-54</b>	<b>54-97</b>	<b>97+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>SL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR2.5/1</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)				
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Agata**

Profile ID <b>Aga-A-6</b>	Date <b>19-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°53'24"</b>	GPS N <b>07°56'13"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2612</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>8</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-59</b>	<b>59-105</b>	<b>105+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR2.5/1</b>	<b>2.5YR3/4</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Agata**

Profile ID <b>Aga-A-7</b>	Date <b>19-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°53'23"</b>	GPS N <b>07°56'21"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2608</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>5</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-60</b>	<b>60-108</b>	<b>108+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR2.5/1</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)				
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Enemor Ener Woreda**

**Kebele Agata**

Profile ID <b>Aga-A-8</b>	Date <b>19-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Enemor Enre</b>	GPS E <b>37°53'32"</b>	GPS N <b>07°56'44"</b>	
(Base) map unit ID	Topography (t7) <b>0-5</b>	Elevation (m.) <b>2633</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, description <b>LP</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>M</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Chara Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -28</b>	<b>28-62</b>	<b>62-120</b>	<b>120+</b>
Hor. Boundary Distinct. (t24)		<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>CL</b>	<b>CL</b>	<b>CL</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/1</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Diagnostic horizon					
Diagnostic property					
Diagnostic material					

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Sintaro**

Profile ID <b>Sint-A-1</b>	Date <b>17-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°32'39"</b>	GPS N <b>06°56'08"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2073</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, Upper		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt</b>	<b>BC</b>	<b>C</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-42</b>	<b>42-70</b>	<b>70-116</b>	<b>116+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SC</b>	<b>SCL</b>	<b>CL</b>	<b>SC</b>	<b>SC</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering (t29)					
Colour munsell code moist		<b>10YR 5/3</b>	<b>10YR4/2</b>	<b>2.5Y 4/4</b>	<b>2.5YR 4/3</b>	<b>GLE Y1 5/5GY</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>SST</b> <b>PL</b>	<b>SST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance %	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Sintaro**

Profile ID <b>Sint-A-2</b>	Date <b>17-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°32'46"</b>	GPS N <b>06°56'09"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2087</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Dumo busha</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt</b>	<b>BC</b>	<b>C</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-41</b>	<b>41-67</b>	<b>67-103</b>	<b>103+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SCL</b>	<b>CL</b>	<b>SC</b>	<b>SCL</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>10YR 5/3</b>	<b>10YR4/2</b>	<b>2.5Y 4/4</b>	<b>2.5YR 4/4</b>	<b>GLE Y1 6/5GY</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Sintaro**

Profile ID <b>Sint-A-3</b>	Date <b>17-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°32'32"</b>	GPS N <b>06°56'32"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2054</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Dumo busha</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-50</b>	<b>50-73</b>	<b>73-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>SC</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR 3/3</b>	<b>5YR 3/3</b>	<b>5YR 3/2</b>	<b>10R 3/3</b>	<b>10YR 4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Sintaro**

Profile ID <b>Sint-A-4</b>	Date <b>17-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'02"</b>	GPS N <b>06°56'37"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2067</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-50</b>	<b>50-73</b>	<b>73-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SL</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>SC</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR 3/2</b>	<b>5YR 3/3</b>	<b>5YR 3/2</b>	<b>2.5YR 3/2</b>	<b>10YR 4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Sintaro**

Profile ID <b>Sint-A-5</b>	Date <b>17-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'00"</b>	GPS N <b>06°56'19"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2118</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-50</b>	<b>50-73</b>	<b>73-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>SC</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR 3/3</b>	<b>5YR 3/3</b>	<b>5YR 3/2</b>	<b>2.5YR 3/2</b>	<b>10YR 4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Sintaro**

Profile ID <b>Sint-A-6</b>	Date <b>17-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'02"</b>	GPS N <b>06°56'16"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2119</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Dumo busha</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-50</b>	<b>50-73</b>	<b>73-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>SC</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR 3/3</b>	<b>5YR 3/3</b>	<b>5YR 3/2</b>	<b>10R 3/3</b>	<b>10YR 4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Sintaro**

Profile ID <b>Sint-A-7</b>	Date <b>17-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°32'40"</b>	GPS N <b>06°56'53"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2068</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-50</b>	<b>50-73</b>	<b>73-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SL</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>SC</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR 4/3</b>	<b>5YR 3/3</b>	<b>5YR 3/2</b>	<b>2.5YR 3/2</b>	<b>10YR 4/4</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Sintaro**

Profile ID <b>Sint-A-8</b>	Date <b>17-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°36'27"</b>	GPS N <b>06°55'21"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2452</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>8</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>BC</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-50</b>	<b>50-73</b>	<b>73-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>SC</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR 3/4</b>	<b>5YR 3/4</b>	<b>5YR 3/2</b>	<b>10R 3/3</b>	<b>10YR 4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

## AUGER SITE

### Description for Malga Woreda

#### Kebele Kocho

Profile ID <b>Kocho-A-1</b>	Date <b>18-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'13"</b>	GPS N <b>06°55'37"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2187</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>8</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-39</b>	<b>39-70</b>	<b>70-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist						
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>VST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Kocho**

Profile ID <b>Kocho-A-2</b>	Date <b>18-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'40"</b>	GPS N <b>06°55'32"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2221</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>9</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-40</b>	<b>40-70</b>	<b>70-120</b>	<b>120+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist						
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Kocho**

Profile ID <b>Kocho-A-3</b>	Date <b>18-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'03"</b>	GPS N <b>06°55'51"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2164</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>9</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Dumo busha</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt1</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-40</b>	<b>40-73</b>	<b>73-122</b>	<b>122+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist						
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Kocho**

Profile ID <b>Kocho-A-4</b>	Date <b>18-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'06"</b>	GPS N <b>06°55'52"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2161</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-45</b>	<b>45-80</b>	<b>89+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SCL</b>	<b>SL</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Kocho**

Profile ID <b>Kocho-A-5</b>	Date <b>18-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'06"</b>	GPS N <b>06°55'54"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2154</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-55</b>	<b>55-96</b>	<b>96+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Kocho**

Profile ID <b>Kocho-A-6</b>	Date <b>18-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'17"</b>	GPS N <b>06°55'55"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2475</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -19</b>	<b>19-45</b>	<b>45-83</b>	<b>83+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Kocho**

Profile ID <b>Kocho-A-7</b>	Date <b>18-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'45"</b>	GPS N <b>06°55'40"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2223</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-55</b>	<b>55-96</b>	<b>96+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Kocho**

Profile ID <b>Kocho-A-8</b>	Date <b>18-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°33'11"</b>	GPS N <b>06°55'32"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2139</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>8</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-45</b>	<b>45-99</b>	<b>99+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

## AUGER SITE

### Description for MalgaWoreda

#### Kebele Guguma

Profile ID <b>Gu-A-1</b>	Date <b>16-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.)	GPS E <b>38°42'44"</b>	GPS N <b>06°59'28"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2655</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>M</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm)	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-45</b>	<b>45-90</b>	<b>90-123</b>	<b>123+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>C</b>	<b>G</b>	<b>C</b>	
Texture class (f4, t25)		<b>CL</b>	<b>SC</b>	<b>CL</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist						
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>VST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for MalgaWoreda**

**Kebele Guguma**

Profile ID <b>Gu-A-2</b>	Date <b>16-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.)	GPS E <b>38°42'30"</b>	GPS N <b>06°59'25"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2650</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>M</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm)	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-45</b>	<b>45-85</b>	<b>85-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>C</b>	<b>G</b>	<b>C</b>	
Texture class (f4, t25)		<b>CL</b>	<b>SC</b>	<b>CL</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist						
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>VST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for MalgaWoreda**

**Kebele Guguma**

Profile ID <b>Gu-A-3</b>	Date <b>16-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.)	GPS E <b>38°42'41"</b>	GPS N <b>06°59'20"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2657</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>M</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm)	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -24</b>	<b>24-50</b>	<b>50-85</b>	<b>85-113</b>	<b>113+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>C</b>	<b>G</b>	<b>C</b>	
Texture class (f4, t25)		<b>CL</b>	<b>SC</b>	<b>CL</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist						
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>VST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for MalgaWoreda**

**Kebele Guguma**

Profile ID <b>Gu-A-4</b>	Date <b>16-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.)	GPS E <b>38°42'27"</b>	GPS N <b>06°59'20"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2664</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>M</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm)	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-65</b>	<b>65-92</b>	<b>92+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for MalgaWoreda**

**Kebele Guguma**

Profile ID <b>Gu-A-5</b>	Date <b>16-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.)	GPS E <b>38°42'30"</b>	GPS N <b>06°59'00"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2663</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>M</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm)	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-60</b>	<b>60-98</b>	<b>98+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for MalgaWoreda**

**Kebele Guguma**

Profile ID <b>Gu-A-6</b>	Date <b>16-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.)	GPS E <b>38°42'17"</b>	GPS N <b>06°59'16"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2655</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>M</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm)	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-68</b>	<b>68-102</b>	<b>102+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for MalgaWoreda**

**Kebele Guguma**

Profile ID <b>Gu-A-7</b>	Date <b>16-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.)	GPS E <b>38°42'02"</b>	GPS N <b>06°59'23"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2661</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>M</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm)	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-70</b>	<b>70-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for MalgaWoreda**

**Kebele Guguma**

Profile ID <b>Gu-A-8</b>	Date <b>16-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.)	GPS E <b>38°42'04"</b>	GPS N <b>06°59'29"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2655</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>M</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm)	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-60</b>	<b>60-102</b>	<b>102+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

## AUGER SITE

### Description for Malga Woreda

#### Kebele Fito ketemena

Profile ID <b>Fike-A-1</b>	Date <b>15-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°37'33"</b>	GPS N <b>06°55'53"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2531</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>8</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-39</b>	<b>39-70</b>	<b>70-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist						
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>VST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Fito ketemena**

Profile ID <b>Fike-A-2</b>	Date <b>15-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°37'25"</b>	GPS N <b>06°55'52"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2516</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>9</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-40</b>	<b>40-70</b>	<b>70-120</b>	<b>120+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist						
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

## AUGER SITE

### Description for Malga Woreda

#### Kebele Fito ketemena

Profile ID <b>Fike-A-3</b>	Date <b>15-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°37'20"</b>	GPS N <b>06°55'46"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2499</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>9</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt1</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-40</b>	<b>40-73</b>	<b>73-122</b>	<b>122+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist						
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>VST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

## AUGER SITE

### Description for Malga Woreda

#### Kebele Fito ketemena

Profile ID <b>Fike-A-4</b>	Date <b>15-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°37'07"</b>	GPS N <b>06°55'48"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2498</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-45</b>	<b>45-80</b>	<b>89+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SCL</b>	<b>SL</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

## AUGER SITE

### Description for Malga Woreda

#### Kebele Fito ketemena

Profile ID <b>Fike-A-5</b>	Date <b>15-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°36'55"</b>	GPS N <b>06°55'44"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2479</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-55</b>	<b>55-96</b>	<b>96+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Malga Woreda**

**Kebele Fito ketemena**

Profile ID <b>Fike-A-6</b>	Date <b>15-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°36'32"</b>	GPS N <b>06°55'45"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2475</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -19</b>	<b>19-45</b>	<b>45-83</b>	<b>83+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

## AUGER SITE

### Description for Malga Woreda

#### Kebele Fito ketemena

Profile ID <b>Fike-A-7</b>	Date <b>15-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°36'24"</b>	GPS N <b>06°55'36"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2429</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-55</b>	<b>55-96</b>	<b>96+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

## AUGER SITE

### Description for Malga Woreda

#### Kebele Fito ketemena

Profile ID <b>Fike-A-8</b>	Date <b>15-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Malga</b>	GPS E <b>38°36'27"</b>	GPS N <b>06°55'21"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2452</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>8</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-45</b>	<b>45-99</b>	<b>99+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>SC</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Yerim**

Profile ID <b>Ye-A-1</b>	Date <b>18-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°58'04"</b>	GPS N <b>07°42'16"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2160</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, <b>Middle</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>M</b> Depth (cm) <b>S</b> Distance (m) <b>C</b>		
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -19</b>	<b>19-50</b>	<b>50-80</b>	<b>80-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>D</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>10YR3/4</b>	<b>10YR3/3</b>	<b>7.5YR3/</b>	<b>7.5YR3/4</b>	<b>10YR4/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>PL</b>	<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>		<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Yerim**

Profile ID <b>Ye-A-2</b>	Date <b>18-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°58'36"</b>	GPS N <b>07°42'16"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2146</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, <b>Middle</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-51</b>	<b>51-82</b>	<b>82-130</b>	<b>130+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	<b>D</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>SC</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>		
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>10YR3/6</b>	<b>10YR3/3</b>	<b>7.5YR3/4</b>	<b>7.5YR3/4</b>	<b>10YR4/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Yerim**

Profile ID <b>Ye-A-3</b>	Date <b>18-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°58'07"</b>	GPS N <b>07°41'51"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2144</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, <b>Middle</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b> Depth (cm) <b>S</b> Distance (m) <b>C</b>		
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-69</b>	<b>69-107</b>	<b>107-130</b>	<b>130+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	<b>D</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>SC</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>10YR3/4</b>	<b>10YR3/4</b>	<b>7.5YR3/4</b>	<b>7.5YR3/3</b>	<b>10YR3/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>D</b>	<b>D</b>	<b>D</b>	<b>D</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Yerim**

Profile ID <b>Ye-A-4</b>	Date <b>18-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°59'09"</b>	GPS N <b>07°42'15"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2074</b>	
Major landform (t4) <b>L (V)</b>	Position in landform, <b>middle</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-59</b>	<b>59-114</b>	<b>114+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y6/2</b>	<b>GLAY1 4/10Y</b>	<b>GLAY2 3/5PB</b>	<b>GLAY2 3/5PB</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Yerim**

Profile ID <b>Ye-A-5</b>	Date <b>18-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°59'20"</b>	GPS N <b>07°42'13"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2057</b>	
Major landform (t4) <b>L (V)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>	<b>C3</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-48</b>	<b>48-83</b>	<b>83-121</b>	<b>121+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	<b>D</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>5Y6/2</b>	<b>GLAY1 4/10Y</b>	<b>GLAY2 3/5B</b>	<b>GLAY2 3/10B</b>	<b>GLAY2 3/5PB</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Yerim**

Profile ID <b>Ye-A-6</b>	Date <b>18-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°58'27"</b>	GPS N <b>07°41'50"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2130</b>	
Major landform (t4) <b>L (V)</b>	Position in landform, <b>Middle</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>1</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>W</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Kolisho busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>	<b>C3</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-71</b>	<b>71-102</b>	<b>102-132</b>	<b>132+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Texture class (f4, t25)		<b>SC</b>	<b>SC</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)					
Colour munsell code moist		<b>5Y6/1</b>	<b>GLAY1 4/10Y</b>	<b>GLAY2 3/5B</b>	<b>GLAY2 3/5PB</b>	<b>GLAY2 3/5PB</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>SST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)					
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)					
	Hardness (t76)					
	Nature (t77)					

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Yerim**

Profile ID <b>Ye-A-7</b>	Date <b>18-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°59'25"</b>	GPS N <b>07°42'02"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2049</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>E</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Kolisho busha</b>		Field WRB	

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>	<b>C3</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-78</b>	<b>78-102</b>	<b>102-125</b>	<b>125+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>D</b>	<b>D</b>	<b>D</b>	
Texture class (f4, t25)		<b>SC</b>	<b>SC</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)					
	Weathering stage (t29)J					
Colour munsell code moist		<b>5Y6/2</b>	<b>GLAY1 4/5GY</b>	<b>GLAY2 3/5B</b>	<b>GLAY2 3/5PB</b>	<b>GLAY2 3/10B</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)					
	Prominence (34)					
	Color Munsell code					
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>SST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Yerim**

Profile ID <b>Ye-A-8</b>	Date <b>18-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°59'52"</b>	GPS N <b>07°43'14"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2098</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>E</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Kolisho busha</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C1</b>	<b>C3</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-48</b>	<b>58-97</b>	<b>97-129</b>	<b>129+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>		
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5Y6/1</b>	<b>GLAY1</b>	<b>GLAY2</b>	<b>GLAY2</b>	<b>GLAY2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Emejar**

Profile ID <b>Em-A-1</b>	Date <b>17-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak</b>	GPS E <b>38°00'55"</b>	GPS N <b>07°44'36"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2178</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, <b>Middle</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>M</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-60</b>	<b>60-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>CL</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR3/4</b>	<b>5YR3/4</b>	<b>2.5YR3</b>	<b>5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Emejar**

Profile ID <b>Em-A-2</b>	Date <b>17-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak</b>	GPS E <b>38°00'52"</b>	GPS N <b>07°44'59"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2192</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-56</b>	<b>56-105</b>	<b>105+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>CL</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR3/4</b>	<b>5YR3/3</b>	<b>2.5YR3</b>	<b>5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Emejar**

Profile ID <b>Em-A-3</b>	Date <b>17-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak</b>	GPS E <b>38°00'50"</b>	GPS N <b>07°44'21"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2163</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, <b>Middle</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-70</b>	<b>70-107</b>	<b>107+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>Cl</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR3/4</b>	<b>5YR3/3</b>	<b>2.5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Emejar**

Profile ID <b>Em-A-4</b>	Date <b>17-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak</b>	GPS E <b>38°01'04"</b>	GPS N <b>07°44'21"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2157</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, <b>middle</b>		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>3</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-60</b>	<b>60-104</b>	<b>104+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>CL</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR3/4</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>	<b>5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Emejar**

Profile ID <b>Em-A-5</b>	Date <b>17-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak</b>	GPS E <b>38°00'32"</b>	GPS N <b>07°43'51"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2148</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, Upper		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-68</b>	<b>68-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>Cl</b>	<b>Cl</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR3/4</b>	<b>2.5YR3/4</b>	<b>5YR3/3</b>	<b>5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>SST</b> <b>PL</b>	<b>SST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Emejar**

Profile ID <b>Em-A-6</b>	Date <b>17-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak</b>	GPS E <b>38°00'51"</b>	GPS N <b>07°44'57"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2181</b>	
Major landform (t4) <b>S (E)</b>	Position in landform, <b>Middle</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>V</b>	Size (cm.) <b>B</b>	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>1</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>W</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Kolisho busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Bt1</b>	<b>Bt2</b>	<b>Bt3</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-50</b>	<b>60-102</b>	<b>102+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>D</b>	<b>D</b>	
Texture class (f4, t25)		<b>SL</b>	<b>CL</b>	<b>CI</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>SST</b> <b>PL</b>	<b>SST</b> <b>SPL</b>
Moisture status (t57)		<b>SM</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Emejar**

Profile ID <b>Em-A-7</b>	Date <b>17-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak</b>	GPS E <b>38°00'29"</b>	GPS N <b>07°43'29"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2121</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>1</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>E</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Kolisho busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-57</b>	<b>57-105</b>	<b>105+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SC</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Emejar**

Profile ID <b>Em-A-8</b>	Date <b>17-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak</b>	GPS E <b>37°59'52"</b>	GPS N <b>07°43'14"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2098</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>LS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>E</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Kolisho busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-51</b>	<b>51-97</b>	<b>97+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>SC</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist					
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Shebel**

Profile ID <b>AdSh-A-1</b>	Date <b>16-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°03'38"</b>	GPS N <b>07°52'30"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2561</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-55</b>	<b>55-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/3</b>	<b>2.5YR3/</b>	<b>2.5YR3/</b>	<b>10YR4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Shebel**

Profile ID <b>AdSh-A-2</b>	Date <b>16-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°04'36"</b>	GPS N <b>07°52'470"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2630</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b> Depth (cm) <b>S</b> Distance (m) <b>C</b>		
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -28</b>	<b>28-69</b>	<b>69-105</b>	<b>105+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>2.5YR3/3</b>	<b>2.5YR3/3</b>	<b>2.5YR3/</b>	<b>7.5YR4/4</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Shebel**

Profile ID <b>AdSh-A-3</b>	Date <b>16-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°04'25"</b>	GPS N <b>07°52'54"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2622</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -15</b>	<b>15-49</b>	<b>49-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SC</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/3</b>	<b>5YR3/3</b>	<b>2.5YR3/</b>	<b>7.5YR4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Shebel**

Profile ID <b>AdSh-A-4</b>	Date <b>16-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°04'35"</b>	GPS N <b>07°52'54"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2627</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AB</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-71</b>	<b>71-112</b>	<b>112+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/3</b>	<b>2.5YR3/3</b>	<b>2.5YR3/3</b>	<b>7.5YR4/4</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Shebel**

Profile ID <b>AdSh-A-5</b>	Date <b>16-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°03'47"</b>	GPS N <b>07°52'52"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2583</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-65</b>	<b>65-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/4</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>	<b>7.5YR4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Shebel**

Profile ID <b>AdSh-A-6</b>	Date <b>16-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°04'04"</b>	GPS N <b>07°52'39"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2595</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-66</b>	<b>66-118</b>	<b>118+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/3</b>	<b>2.5YR3/4</b>	<b>5YR3/3</b>	<b>7.5YR4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Shebel**

Profile ID <b>AdSh-A-7</b>	Date <b>16-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°03'41"</b>	GPS N <b>07°52'33"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2568</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-75</b>	<b>75-116</b>	<b>116+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/3</b>	<b>2.5YR3/3</b>	<b>5YR3/3</b>	<b>10YR4/4</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Shebel**

Profile ID <b>AdSh-A-8</b>	Date <b>16-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°04'17"</b>	GPS N <b>07°52'44"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2613</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-72</b>	<b>72-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/3</b>	<b>5YR3/3</b>	<b>2.5YR3/</b>	<b>7.5YR4/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Abicho**

Profile ID <b>AdAb-A-1</b>	Date <b>15-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°05'19"</b>	GPS N <b>07°53'45"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2680</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-60</b>	<b>60-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>D</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR4/3</b>	<b>7.5YR3/4</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Abicho**

Profile ID <b>AdAb-A-2</b>	Date <b>15-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°05'33"</b>	GPS N <b>07°53'45"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2677</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -29</b>	<b>29-76</b>	<b>76-115</b>	<b>115+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR4/4</b>	<b>7.5YR3/4</b>	<b>2.5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Abicho**

Profile ID <b>AdAb-A-3</b>	Date <b>15-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°05'27"</b>	GPS N <b>07°53'36"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2676</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -30</b>	<b>30-73</b>	<b>73-117</b>	<b>117+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR4/4</b>	<b>7.5YR3/4</b>	<b>2.5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Abicho**

Profile ID <b>AdAb-A-4</b>	Date <b>15-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°05'16"</b>	GPS N <b>07°53'37"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2676</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-73</b>	<b>73-114</b>	<b>114+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR4/3</b>	<b>7.5YR3/</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Abicho**

Profile ID <b>AdAb-A-5</b>	Date <b>15-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°05'32"</b>	GPS N <b>07°54'19"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2687</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-68</b>	<b>68-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR4/3</b>	<b>7.5YR3/</b>	<b>2.5YR3/</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Abicho**

Profile ID <b>AdAb-A-6</b>	Date <b>15-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°05'18"</b>	GPS N <b>07°54'18"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2661</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-69</b>	<b>69-114</b>	<b>114+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>D</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>7.5YR4/3</b>	<b>7.5YR3/</b>	<b>2.5YR3/</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)				
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Abicho**

Profile ID <b>AdAb-A-7</b>	Date <b>15-04-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°05'29"</b>	GPS N <b>07°54'11"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2683</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-57</b>	<b>57-105</b>	<b>105+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR4/3</b>	<b>7.5YR3/3</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Mesrak Azernet Berber Woreda**

**Kebele Adazer Abicho**

Profile ID <b>AdAb-A-8</b>	Date <b>02-03-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°05'21"</b>	GPS N <b>07°54'11"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>2673</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Upper		
Position on slope (f2) <b>CR</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 200</b>	
Local soil name <b>Dumo busha</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -28</b>	<b>28-68</b>	<b>68-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>7.5YR4/3</b>	<b>7.5YR3/</b>	<b>2.5YR3/</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Ewan**

Profile ID <b>Ew-A-1</b>	Date 15-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°48'41"</b>	GPS N <b>08°13'14"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1924</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-68</b>	<b>68-97</b>	<b>97+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y4/1</b>	<b>5Y3/2</b>	<b>GLAY1 4/10GY</b>	<b>5Y5/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Ewan**

Profile ID <b>Ew-A-2</b>	Date 15-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°48'48"</b>	GPS N <b>08°13'54"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1911</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -18</b>	<b>18-55</b>	<b>55-95</b>	<b>95+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y4/2</b>	<b>5Y3/1</b>	<b>GLAY1 4/5GY</b>	<b>5Y5/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Ewan**

Profile ID <b>Ew-A-3</b>	Date <b>15-05-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°48'57"</b>	GPS N <b>08°13'23"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1943</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tikur Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-75</b>	<b>75-112</b>	<b>112+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y4/1</b>	<b>5Y3/1</b>	<b>GLAY1 4/5GY</b>	<b>5Y5/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Ewan**

Profile ID <b>Ew-A-4</b>	Date <b>15-05-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°49'20"</b>	GPS N <b>08°13'17"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1937</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tikur Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-58</b>	<b>58-98</b>	<b>98+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y4/1</b>	<b>5Y3/1</b>	<b>GLAY1 4/10GY</b>	<b>5Y5/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Ewan**

Profile ID <b>Ew-A-5</b>	Date 15-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°49'51"</b>	GPS N <b>08°13'44"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1932</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -17</b>	<b>17-68</b>	<b>68-106</b>	<b>106+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y4/2</b>	<b>5Y3/2</b>	<b>GLAY1 4/5GY</b>	<b>5Y5/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Ewan**

Profile ID <b>Ew-A-6</b>	Date <b>15-05-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°49'41"</b>	GPS N <b>08°13'47"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1927</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tikur Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-50</b>	<b>50-107</b>	<b>107+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y4/1</b>	<b>5Y3/2</b>	<b>GLAY1</b>	<b>5Y5/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>VST PL</b>	<b>VST VPL</b>	<b>VST VPL</b>	<b>VST VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Ewan**

Profile ID <b>Ew-A-7</b>	Date <b>15-05-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°49'34"</b>	GPS N <b>08°13'58"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1923</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tikur Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0-18</b>	<b>18-71</b>	<b>71-115</b>	<b>115+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y5/1</b>	<b>5Y3/1</b>	<b>GLAY1</b>	<b>5Y5/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Ewan**

Profile ID <b>Ew-A-8</b>	Date 15-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°49'30"</b>	GPS N <b>08°13'53"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1927</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>V</b>	Depth (cm) <b>V</b>	Distance (m) <b>D</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>AC</b>	<b>C1</b>	<b>C2</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-68</b>	<b>68-113</b>	<b>113+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5Y4/1</b>	<b>5Y3/2</b>	<b>GLAY1</b>	<b>5Y5/4</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>VST</b> <b>VPL</b>	<b>ST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Yeferzeve**

Profile ID <b>Ye-A-1</b>	Date 17-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°55'37"</b>	GPS N <b>08°08'50"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2062</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Middle		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -28</b>	<b>28-65</b>	<b>65-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>2.5YR2.5/3</b>	<b>2.5YR3/4</b>	<b>5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)				
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Yeferzeve**

Profile ID <b>Ye-A-2</b>	Date 17-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°55'48"</b>	GPS N <b>08°08'49"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2076</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Middle		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>5</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -32</b>	<b>32-69</b>	<b>69-113</b>	<b>113+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>2.5YR3/3</b>	<b>2.5YR3/3</b>	<b>5YR3/3</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Yeferzeve**

Profile ID <b>Ye-A-3</b>	Date 17-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°55'45"</b>	GPS N <b>08°08'31"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2069</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Middle		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -26</b>	<b>26-69</b>	<b>69-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>2.5YR3/4</b>	<b>2.5YR3/3</b>	<b>5YR3/3</b>	<b>5YR3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>DM</b>	<b>SM</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Yeferzeve**

Profile ID <b>Ye-A-4</b>	Date 17-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°55'17"</b>	GPS N <b>08°08'31"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2048</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Middle		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>7</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-65</b>	<b>65-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>2.5YR3/4</b>	<b>2.5YR3/</b>	<b>5YR3/3</b>	<b>5YR3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>SM</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Yeferzeve**

Profile ID <b>Ye-A-5</b>	Date 17-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°55'26"</b>	GPS N <b>08°08'16"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2053</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Middle		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>5</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-65</b>	<b>65-109</b>	<b>109+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>2.5YR3/3</b>	<b>2.5YR3/2</b>	<b>5YR3/3</b>	<b>5YR3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SD</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Yeferzeve**

Profile ID <b>Ye-A-6</b>	Date 17-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°55'42"</b>	GPS N <b>08°08'07"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2061</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Middle		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -24</b>	<b>24-60</b>	<b>60-100</b>	<b>108+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR4/4</b>	<b>5YR4/3</b>	<b>2.5YR3/4</b>	<b>2.5YR3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Yeferzeve**

Profile ID <b>Ye-A-7</b>	Date 17-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°55'52"</b>	GPS N <b>08°08'19"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2053</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Middle		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) 7	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % 2	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-70</b>	<b>70-101</b>	<b>101+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR4/3</b>	<b>5YR4/3</b>	<b>2.5YR3/4</b>	<b>2.5YR3/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Yeferzeve**

Profile ID <b>Ye-A-8</b>	Date 17-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°55'49"</b>	GPS N <b>08°07'54"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>2072</b>	
Major landform (t4) <b>L (P)</b>	Position in landform, Middle		
Position on slope (f2) <b>MS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>6</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -27</b>	<b>27-62</b>	<b>62-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>CL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR4/4</b>	<b>5YR4/3</b>	<b>2.5YR3/</b>	<b>2.5YR3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Wordenen**

Profile ID <b>Wo-A-1</b>	Date 16-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'37"</b>	GPS N <b>08°09'40"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>1895</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>7</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>V</b>
Sealing (t20)	Thickness (mm) <b>N</b> Consistence		
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Tikur Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-58</b>	<b>58-104</b>	<b>104+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>2.5YR3/3</b>	<b>2.5YR3/2</b>	<b>5YR3/3</b>	<b>5YR3/2</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Wordenen**

Profile ID <b>Wo-A-2</b>	Date <b>16-05-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'27"</b>	GPS N <b>08°09'33"</b>	
(Base) map unit ID	Topography (t7) <b>5-10</b>	Elevation (m.) <b>1890</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>8</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>2</b>	Degree <b>V</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-61</b>	<b>61-99</b>	<b>99+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>2.5YR3/3</b>	<b>2.5YR3/</b>	<b>5YR3/3</b>	<b>5YR3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)				
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for WordenenWoreda**

**Kebele Wordenen**

Profile ID <b>Wo-A-3</b>	Date 16-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°48'01"</b>	GPS N <b>08°10'12"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1941</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC1</b>	<b>AC2</b>	<b>C</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-71</b>	<b>71-107</b>	<b>107+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>GLAY 1/3/10Y</b>	<b>GLAY 1/3/10Y</b>	<b>GLAY 1/4/5GY</b>	<b>GLAY 2/3/5PB</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>SM</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for Wordenen Woreda**

**Kebele Wordenen**

Profile ID <b>Wo-A-4</b>	Date <b>16-05-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°48'02"</b>	GPS N <b>08°09'48"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1941</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, <b>Lower</b>		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Dumo busha</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC1</b>	<b>AC2</b>	<b>C</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-63</b>	<b>63-104</b>	<b>104+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>GLAY 1/3/10GY</b>	<b>GLAY 1/3/10Y</b>	<b>GLAY 1/4/5GY</b>	<b>GLAY 2/3/5PB</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>D</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Wordenen Woreda**

**Kebele Wordenen**

Profile ID <b>Wo-A-5</b>	Date 16-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°47'29"</b>	GPS N <b>08°10'07"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1926</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, Lower		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>3</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC1</b>	<b>AC2</b>	<b>C</b>
Depth interval (cm)		<b>0 -22</b>	<b>22-70</b>	<b>70-94</b>	<b>94+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>GLAY 1/3/10GY</b>	<b>GLAY 1/3/10Y</b>	<b>GLAY 2/4/10G</b>	<b>GLAY 2/3/5PB</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementatio n	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentratio ns	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for Wordenen Woreda**

**Kebele Wordenen**

Profile ID <b>Wo-A-6</b>	Date <b>16-05-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>36°47'02"</b>	GPS N <b>08°10'03"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1924</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, Lower		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>		Field <b>WRB</b>	

Horizon (t85)		<b>Ap</b>	<b>AC1</b>	<b>AC2</b>	<b>C</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-69</b>	<b>69-114</b>	<b>114+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>GLAY 1/3/5GY</b>	<b>GLAY 1/3/10Y</b>	<b>GLAY 2/3/10G</b>	<b>GLAY 2/3/5PB</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for WordenenWoreda**

**Kebele Wordenen**

Profile ID <b>Wo-A-7</b>	Date <b>16-05-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°46'50"</b>	GPS N <b>08°09'48"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1917</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, Lower		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>4</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>F</b>	Depth (cm) <b>S</b>	Distance (m) <b>C</b>
Surface drainage <b>S</b>	Soil drainage <b>I</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Tikur Afer</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC1</b>	<b>AC2</b>	<b>AC3</b>
Depth interval (cm)		<b>0 -23</b>	<b>23-70</b>	<b>70-109</b>	<b>109+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>GLAY 1/3/10GY</b>	<b>GLAY 1/3/10Y</b>	<b>GLAY 2/4/10G</b>	<b>GLAY 2/3/5PB</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementatio n	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentratio ns	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for WordenenWoreda**

**Kebele Wordenen**

Profile ID <b>Wo-A-8</b>	Date 16-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°47'48"</b>	GPS N <b>08°10'02"</b>	
(Base) map unit ID	Topography (t7) <b>2-5</b>	Elevation (m.) <b>1926</b>	
Major landform (t4) <b>L (D)</b>	Position in landform, Lower		
Position on slope (f2) <b>TS</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>2</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>N</b>	Area %	Degree
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Dumo busha</b>	Field WRB		

Horizon (t85)		<b>Ap</b>	<b>AC1</b>	<b>AC2</b>	<b>AC3</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-68</b>	<b>68-94</b>	<b>94+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>GLAY 1/3/10GY</b>	<b>GLAY 1/3/10Y</b>	<b>GLAY 2/4/10G</b>	<b>GLAY 2/3/5PB</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t38) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>PL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>	<b>VST</b> <b>VPL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Moche**

Profile ID <b>Mo-A-1</b>	Date 18-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°00'57"</b>	GPS N <b>08°03'44"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2576</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, Middle		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -28</b>	<b>28-65</b>	<b>65-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>CS</b>	<b>GS</b>	<b>GS</b>	
Texture class (f4, t25)		<b>SL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR4/6</b>	<b>5YR3/4</b>	<b>2.5YR3/3</b>	<b>2.5YR2.5/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Moche**

Profile ID <b>Mo-A-2</b>	Date 18-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°01'04"</b>	GPS N <b>08°03'33"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2601</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, Middle		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -32</b>	<b>32-69</b>	<b>69-115</b>	<b>115+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SC</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR4/6</b>	<b>5YR3/4</b>	<b>2.5YR3/4</b>	<b>2.5YR2.5/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Moche**

Profile ID <b>Mo-A-3</b>	Date <b>18-05-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°01'00"</b>	GPS N <b>08°03'12"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2635</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, Middle		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -25</b>	<b>25-59</b>	<b>59-110</b>	<b>110+</b>
Hor. Boundary Distinct. (t24)		<b>G</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SC</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (28)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR3/2</b>	<b>5YR3/4</b>	<b>5YR3/3</b>	<b>2.5YR2.5/3</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Moche**

Profile ID <b>Mo-A-4</b>	Date 18-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>37°01'06"</b>	GPS N <b>08°03'06"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2644</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, Middle		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -21</b>	<b>21-65</b>	<b>65-97</b>	<b>97+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>CL</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR3/2</b>	<b>5YR3/4</b>	<b>5YR3/3</b>	<b>2.5YR2.5/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Moche**

Profile ID <b>Mo-A-5</b>	Date 18-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°0'47"</b>	GPS N <b>08°03'36"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2592</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, Middle		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -20</b>	<b>20-65</b>	<b>65-109</b>	<b>109+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26) Size mm (27) Weathering stage (t29)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Colour munsell code moist		<b>5YR4/6</b>	<b>5YR3/3</b>	<b>2.5YR3/4</b>	<b>2.5YR2.5/4</b>
Mottles	Abundance (t32) Size (t33) Prominence (34) Color Munsell code	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71) Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73) Size mm (t75) Hardness (t76) Nature (t77)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Moche**

Profile ID <b>Mo-A-6</b>	Date <b>18-05-06</b>	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°00'59"</b>	GPS N <b>08°02'57"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2661</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, Middle		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>11</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt</b>
Depth interval (cm)		<b>0 -30</b>	<b>30-60</b>	<b>60-108</b>	<b>108+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SC</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR3/4</b>	<b>5YR3/4</b>	<b>5YR3/3</b>	<b>2.5YR2.5/3</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>M</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Moche**

Profile ID <b>Mo-A-7</b>	Date 18-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°01'04"</b>	GPS N <b>08°02'57"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2662</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, Middle		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>12</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) > 150	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>Bt1</b>	<b>Bt2</b>
Depth interval (cm)		<b>0 -32</b>	<b>32-71</b>	<b>71-116</b>	<b>116+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR3/4</b>	<b>5YR3/3</b>	<b>5YR3/3</b>	<b>5YR3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>SST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)				
	Degree (t72)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				

**AUGER SITE**

**Description for ChehaWoreda**

**Kebele Moche**

Profile ID <b>Mo-A-8</b>	Date 18-05-06	Surveyor <b>Alemayehu K.</b>	Status (t1) <b>4.1</b>
Location (admin.) <b>Mesrak Azernet Berber</b>	GPS E <b>38°00'49"</b>	GPS N <b>08°03'00"</b>	
(Base) map unit ID	Topography (t7) <b>10-15</b>	Elevation (m.) <b>2641</b>	
Major landform (t4) <b>S (H)</b>	Position in landform, Middle		
Position on slope (f2) <b>UP</b>	Slope form (t6) <b>S/S</b>	Slope (%) <b>13</b>	
Land Use (t8) <b>AA4</b>	Crop (t9) <b>Ce</b>	Human infl.(t10) <b>FE</b>	
Geology description	Parent material (t12) <b>I</b>		
Outcrops/stoniness (t15)	Cover (%) <b>N</b>	Size (cm.)	
Erosion (t16,17, 18)	Category <b>W</b>	Area % <b>4</b>	Degree <b>M</b>
Sealing (t20)	Thickness (mm) <b>N</b>	Consistence	
Cracks (t21)	Width (cm) <b>N</b>	Depth (cm)	Distance (m)
Surface drainage <b>W</b>	Soil drainage <b>W</b>		
Depth to groundwater <b>N</b>	Depth to bedrock (cm) <b>N</b>	Rootable depth (cm) <b>&gt; 150</b>	
Local soil name <b>Busha Afer</b>	Field <b>WRB</b>		

Horizon (t85)		<b>Ap</b>	<b>Ah</b>	<b>AB</b>	<b>Bt1</b>
Depth interval (cm)		<b>0 -29</b>	<b>29-62</b>	<b>62-100</b>	<b>100+</b>
Hor. Boundary Distinct. (t24)		<b>C</b>	<b>G</b>	<b>G</b>	
Texture class (f4, t25)		<b>SCL</b>	<b>C</b>	<b>C</b>	<b>C</b>
Coarse fragment	Abundance % (t26)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (27)				
	Weathering stage (t29)				
Colour munsell code moist		<b>5YR3/4</b>	<b>5YR3/3</b>	<b>5YR3/3</b>	<b>5YR3/2</b>
Mottles	Abundance (t32)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size (t33)				
	Prominence (34)				
	Color Munsell code				
Carbonates (t37) by HCl		<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
Consistency, Wet (t55, 56)		<b>ST</b> <b>SPL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>	<b>ST</b> <b>PL</b>
Moisture status (t57)		<b>SD</b>	<b>SM</b>	<b>M</b>	<b>M</b>
Cementation	Nature (t71)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Degree (t72)				
Mineral concentrations	Abundance % (t73)	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>
	Size mm (t75)				
	Hardness (t76)				
	Nature (t77)				