Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0010** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: N.J. McKenzie
Date Desc.: 19/12/95
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6031874 AMG zone: 55
Easting/Lat.: 619919 Datum: AGD66
Locality:
Elevation: 1070 metres
Rainfall: No Data
Runoff: No Data
Drainage: Well drained

Geology

ExposureType: No Data
Geol. Ref.: Os
Conf. Sub. is Parent. Mat.: Probable
Substrate Material: Sandstone

Land Form

Rel/Slope Class: No Data
Morph. Type: Mid-slope
Elem. Type: Hillslope
Slope: 23 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 45 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Magnesic Red Kandosol Medium Slightly gravelly Loamy Clay-loamy Very deep
Mapping Unit: N/A
Principal Profile Form: N/A

ASC Confidence:
All necessary analytical data are available.
Great Soil Group: N/A

Site Disturbance: No effective disturbance other than grazing by hoofed animals

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.12 m	Dark reddish brown (5YR3/2-Moist); ; Loam; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, angular tabular, Sandstone, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Smooth change to -
AB	0.12 - 0.32 m	Reddish brown (5YR4/4-Moist); Biological mixing, 5YR42, 20-50% , Distinct; Clay loam; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, angular tabular, Sandstone, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.32 - 0.63 m	Red (2.5YR4/6-Moist); Biological mixing, 5YR43, 10-20% , Distinct; Clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, angular tabular, Sandstone, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
B22	0.63 - 1.2 m	Red (2.5YR5/6-Moist); Biological mixing, 2.5YR56, 2-10% , Distinct; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, angular tabular, Sandstone, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Smooth change to -
C1	1.2 - 1.4 m	Brownish yellow (10YR6/8-Moist); Substrate influence, 2.5YR46, 10-20% , Distinct; Medium sandy clay loam; Earthy fabric; Moderately moist; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Clear, Smooth change to -
C2	1.4 - 1.85 m	Red (2.5YR4/6-Moist); ; Medium sandy clay loam; Earthy fabric; Moderately moist; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Clear, Smooth change to -

Morphological Notes

AB B horizon redness not as pronounced as other Ordovician sites.

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B21	Same as layer 2.

Observation Notes

Site Notes

COMP 15H, 2811-1,BRG 13, 368M FR 3044

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0010 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.12	4.26C		4.78H	0.81	0.56	0.04	2.86J 0K		9.05E	
0.12 - 0.32	4.31C		0.34H	0.24	0.38	0.02	1.37J 0K		2.35E	
0.32 - 0.63	4.4C		0.14H	0.23	0.32	0.01	0.66J 0K		1.37E	
0.63 - 1.2	4.17C		0H	0.13	0.21	0.04	1J 0K		1.38E	
1.2 - 1.4	4.15C		0H	0.06	0.17	0.01	0.65J 0K		0.88E	
1.4 - 1.85	4.12C		0H	0.05	0.13	0	0.83J 0K		1.01E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.12		5.91B		351.6B	0.25A		1.07	49.29				
0.12 - 0.32		1.5B		467.1B	0.08A		1.34	29.62				
0.32 - 0.63		0.76B		360.4B	0.03A		1.27	33.11				
0.63 - 1.2		0.3B		404.8B	0.02A		1.53	36.01				
1.2 - 1.4		0.12B		201.5B	0.01A			16.31				
1.4 - 1.85		0.07B		264.9B	0.01A			29.8				

Depth	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	
m		g/g - m3/m3						mm/h	mm/h
0 - 0.12									
0.12 - 0.32									
0.32 - 0.63									
0.63 - 1.2									
1.2 - 1.4									
1.4 - 1.85									

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Laboratory Analyses Completed for this profile

15_NR	Sum of Ex. cations + Ex. acidity - Not recorded
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_H	Exchangeable H - by compulsive exchange, no pretreatment for soluble salts
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
2A1	Air-dry moisture content
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
6B2	Total organic carbon - high frequency induction furnace, volumetric
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
P10_GRAV	Gravel (%)
P3A1	Bulk density - g/cm3