Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0036** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: P. Ryan
Date Desc.: 21/11/95
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6032806 AMG zone: 55
Easting/Lat.: 616706 Datum: AGD66
Locality:
Elevation: 1354 metres
Rainfall: No Data
Runoff: No Data
Drainage: Well drained

Geology

ExposureType: Soil pit
Geol. Ref.: Os
Conf. Sub. is Parent. Mat.: Probable
Substrate Material: Sandstone

Land Form

Rel/Slope Class: No Data
Morph. Type: Upper-slope
Elem. Type: Hillslope
Slope: 13 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 315 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Magnesic Red Dermosol Medium Gravelly Clay-loamy Clayey Deep
Mapping Unit: N/A
Principal Profile Form: Uf6.12

ASC Confidence:
All necessary analytical data are available.
Great Soil Group: No suitable group

Site Disturbance:

Vegetation:

Surface Coarse Fragments: 10-20%, medium gravelly, 6-20mm, subangular tabular, Sandstone

Profile Morphology

A1	0 - 0.11 m	Dark reddish brown (5YR3/2-Dry); ; Clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; <2 mm, Granular; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subangular tabular, Sandstone, coarse fragments; Field pH 4.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
A3	0.11 - 0.21 m	Dark reddish brown (5YR3/3-Dry); Biological mixing, 5YR44, 2-10% , Faint; Clay loam; Moderate grade of structure, 10-20 mm, Subangular blocky; 2-5 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subangular tabular, Sandstone, coarse fragments; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B1	0.21 - 0.32 m	Dark reddish brown (5YR3/4-Dry); Biological mixing, 7.5YR32, 2-10% , Distinct; Light clay; Moderate grade of structure, 10-20 mm, Subangular blocky; 2-5 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subangular, Sandstone, coarse fragments; Field pH 5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Wavy change to -
B21	0.32 - 0.55 m	Red (2.5YR4/6-Dry); ; Light clay; Weak grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subangular tabular, Sandstone, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.55 - 0.75 m	Red (2.5YR4/6-Dry); ; Light clay; Weak grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, angular tabular, Sandstone, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Gradual, Smooth change to -
B3	0.75 - 1.1 m	Red (2.5YR4/6-Dry); ; Light clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 50-90%, medium gravelly, 6-20mm, subangular platy, Sandstone, coarse fragments; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual, Smooth change to -

Morphological Notes

B3	High gravel content with uniform size of <20mm, possibly transported?

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Site Notes

COMP 36H,2575-1,341D 150M FROM RD JNT

Observation Notes

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0036 **Observation ID:** 1
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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 - 0.11	3.7C		1.11H	0.85	0.65	0.02	8.51J 0K		11.14E	
0.11 - 0.21	3.93C		0.03H	0.48	0.56	0.03	5.35J 0K		6.45E	
0.21 - 0.32	4C		0H	0.33	0.43	0.02	4.05J 0K		4.83E	
0.32 - 0.55	3.98C		0H	0.25	0.38	0	3.59J 0K		4.22E	
0.55 - 0.75	3.96C		0H	0.26	0.62	0.01	3.27J 0K		4.17E	
0.75 - 1.1	3.97C		0.05H	0.26	0.36	0.01	2.8J 0K		3.47E	

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 - 0.11		10.27B		481.3B	0.36A		0.86	50.5				
0.11 - 0.21		4.74B		426.3B	0.16A		1.08	40.48				
0.21 - 0.32		2.89B		364B	0.1A		1.38	53.36				
0.32 - 0.55		1.46B		356.5B	0.07A		1.35	40.42				
0.55 - 0.75		0.65B		315.9B	0.04A		1.53	40.63				
0.75 - 1.1		0.35B		292.1B	0.02A			51.23				

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 - 0.11										
0.11 - 0.21										
0.21 - 0.32										
0.32 - 0.55										
0.55 - 0.75										
0.75 - 1.1										

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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