

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0034 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	23/11/95	Elevation:	1267 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6034104 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	617384 Datum: AGD66	Drainage:	Well drained

Geology

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

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Upper-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	8 %	Aspect:	315 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Magnesic Red Kandosol Medium Slightly gravelly Clayey Clayey Moderately deep	Principal Profile Form:	Uf6.71
ASC Confidence:	Great Soil Group:	Red earth

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 0-2%, coarse gravelly, 20-60mm, subangular tabular, Sandstone

Profile Morphology

O1	0 - 0.03 m	Organic Layer; ;
Ap	0.03 - 0.18 m	Dark reddish brown (5YR3/4-Moist); ; Light clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subrounded tabular, Sandstone, coarse fragments; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Sharp, Smooth change to -
A1b	0.18 - 0.31 m	Dark reddish brown (5YR3/2-Moist); ; Clay loam; Moderate grade of structure, 5-10 mm, Angular blocky; 2-5 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 0-2%, medium gravelly, 6-20mm, angular, Quartz, coarse fragments; 2-10%, coarse gravelly, 20-60mm, subrounded tabular, Sandstone, coarse fragments; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B1b	0.31 - 0.48 m	Dark reddish brown (5YR3/4-Moist); Biological mixing, 5YR32, 20-50% , Faint; Light clay; Moderate grade of structure, 5-10 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded tabular, Sandstone, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Gradual, Wavy change to -
B2b	0.48 - 0.69 m	Dark red (2.5YR3/6-Moist); Biological mixing, 5YR32, 0-2% , Faint; Light clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, Sandstone, coarse fragments; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual, Irregular change to -
BCb	0.69 - 0.88 m	Red (2.5YR4/6-Moist); ; Fine sandy clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 20-50%, coarse gravelly, 20-60mm, subangular tabular, Sandstone, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Irregular change to -

Morphological Notes

Ap	Soil material of B horizon origin and has been transported over existing soil. No obvious surface active erosion. Cause could be original logging event.
A1b	Buried A horizon.

Observation Notes

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Area was logged 30-40 years ago. Recent regrowth indicates a second logging episode.

Site Notes

COMP 9H,2261-1,348D,50M FROM LOG. RD

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.03										
0.03 - 0.18	3.97C		0.01H	0.29	0.54	0	4J 0K		4.85E	
0.18 - 0.31	4.08C		0.03H	0.29	0.7	0	3.6J 0K		4.63E	
0.31 - 0.48	4.08C		0H	0.23	0.58	0	2.87J 0K		3.68E	
0.48 - 0.69	4.07C		0H	0.24	0.33	0	2.18J 0K		2.75E	
0.69 - 0.88	4.02C		0H	0.24	0.26	0	2.29J 0K		2.79E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS	Silt Clay
0 - 0.03											
0.03 - 0.18		2.76B		299.5B	0.11A		0.95	20.27			
0.18 - 0.31		3.29B		350.6B	0.13A		1.15	28.22			
0.31 - 0.48		1.63B		279.8B	0.07A		1.30	26.82			
0.48 - 0.69		0.9B		244.9B	0.04A		1.11	32.43			
0.69 - 0.88		0.53B		248.5B	0.03A		1.24	26.4			

[illegible]

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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