

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0084 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	13/03/96	Elevation:	1242 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6039370 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	617051 Datum: AGD66	Drainage:	Well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	Sgg	Substrate Material:	Schist

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Mid-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	20 %	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	Principal Profile Form:	Um7.11
Clay-loamy Clayey Deep	Great Soil Group:	Red earth

ASC Confidence:

All necessary analytical data are available.

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

Vegetation:

Surface Coarse Fragments: 10-20%, fine gravelly, 2-6mm, angular tabular, Coal; 10-20%, medium gravelly, 6-20mm, angular tabular, Coal

Profile Morphology

O1	0 - 0.04 m	Organic Layer; ;
A1	0.04 - 0.17 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 5YR44, 2-10% , Faint; Clay loam; Strong grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, subrounded tabular, coarse fragments; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Smooth change to -
A3	0.17 - 0.31 m	Dark reddish brown (5YR3/3-Moist); Mechanical, 2.5YR46, 10-20% , Distinct; Light clay; Strong grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, Coal, coarse fragments; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Irregular change to -
B21	0.31 - 0.54 m	Dark red (2.5YR3/6-Moist); Biological mixing, 5YR33, 2-10% , Distinct; Light clay; Massive grade of structure; Earthy fabric; Moist; Firm consistence; 0-2%, medium gravelly, 6-20mm, subangular tabular, coarse fragments; 0-2%, fine gravelly, 2-6mm, angular tabular, Coal, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Diffuse, Smooth change to -
B22	0.54 - 0.89 m	Dark red (2.5YR3/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moist; Firm consistence; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Irregular change to -
BC	0.89 - 1.14 m	Dark red (2.5YR3/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, angular tabular, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots;

Morphological Notes

A1	Pedal structure due to faunal activity.
A3	Structure due to casting. Disturbance and mixing evident in boundary topography.
B21	Structure and faunal activity diminish.

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BC In situ weathering schist substrate is probably Ordovician metasediments although this outcrop is not mapped.

Observation Notes

Broad open hillslope. PM is schistose so possibly Os, not Sgg.

Site Notes

COMP117H,BRG233D 450M FROM 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 - 0.04										
0.04 - 0.17	4.23C		3.65H	1.48	0.81	0.04	4.09J OK		10.06E	
0.17 - 0.31	4.17C		1.76H	1.22	0.71	0.02	3.44J OK		7.16E	
0.31 - 0.54	3.98C		0.45H	0.69	0.62	0.02	4.24J OK		6.02E	
0.54 - 0.89	3.92C		0.05H	0.34	0.51	0.02	4.34J OK		5.16E	
0.89 - 1.14	3.96C		0.05H	0.36	0.44	0.01	3.29J OK		4.06E	

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 - 0.04											
0.04 - 0.17		4.94B		332B	0.19A		0.91	32.41			
0.17 - 0.31		3.04B		294.1B	0.11A		1.20	30.15			
0.31 - 0.54		1.14B		254.7B	0.07A		1.40	34.18			
0.54 - 0.89		0.35B		199.5B	0.04A		1.27	26.27			
0.89 - 1.14		0.24B		232.1B	0.03A			35.71			

[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