

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0019 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	18/12/95	Elevation:	1312 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6025831 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	621318 Datum: AGD66	Drainage:	Rapidly drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	No Data

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:	23 %	Aspect:	180 degrees

Surface Soil Condition (dry):

Erosion: Partial, No sheet erosion (sheet)

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Humose-Acidic Dystrophic Red Kandosol Medium Moderately gravelly Loamy Clay-loamy Deep	Principal Profile Form:	Um6.13
ASC Confidence:	Great Soil Group:	N/A

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 20-50%, cobbly, 60-200mm, angular tabular, Metamorphic rock (unidentified)

Profile Morphology

O1	0 - 0.04 m	Organic Layer; ;
A11	0.04 - 0.13 m	Black (5YR2.5/1-Moist); ; Loam; Weak grade of structure, 5-10 mm, Granular; Rough-ped fabric; Moist; Very weak consistence; 20-50%, coarse gravelly, 20-60mm, angular tabular, dispersed, Metamorphic rock (unidentified), coarse fragments; Many cutans, >50% of ped faces or walls coated, distinct; 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; Gradual, Smooth change to -
A12	0.13 - 0.28 m	Black (5YR2.5/1-Moist); ; Loam; Moderate grade of structure, 5-10 mm, Granular; Rough-ped fabric; Moist; Very weak consistence; 20-50%, cobbly, 60-200mm, angular tabular, dispersed, Metamorphic rock (unidentified), coarse fragments; Many cutans, >50% of ped faces or walls coated, distinct; 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; Abrupt, Irregular change to -
A13	0.28 - 0.44 m	Dark brown (7.5YR3/2-Moist); Biological mixing, 5YR2.51, 20-50% , Distinct; Clay loam; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 20-50%, coarse gravelly, 20-60mm, angular tabular, dispersed, Metamorphic rock (unidentified), coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (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 -
B21	0.44 - 0.72 m	Yellowish red (5YR4/6-Moist); ; Clay loam; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 20-50%, coarse gravelly, 20-60mm, angular tabular, dispersed, Metamorphic rock (unidentified), coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.72 - 1.09 m	Yellowish red (5YR5/6-Moist); Substrate influence, 7.5YR66, 10-20% , Faint; Clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 20-50%, coarse gravelly, 20-60mm, angular tabular, dispersed, Metamorphic rock (unidentified), coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5 (Raupach); Few, very fine (0-

Morphological Notes

A11 Very high organic matter.

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A12 Very high organic matter.

A13 Possibly either A3/A2 or B1. Very high biological activity and slightly more pale.
B22 Layer continues but couldn't be augered. 40 cm root channel on left side.

Observation Notes

Site Notes

COMP 23H,6162-1,BRG 223, 200M 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 - 0.13	3.82C		4.79H	1.2	1.14	0.08	7.92J 0K		15.13E	
0.13 - 0.28	4.15C		2.74H	0.59	0.81	0.05	4.98J 0K		9.16E	
0.28 - 0.44	4.27C		1.47H	0.57	0.69	0.05	3.41J 0K		6.18E	
0.44 - 0.72	4.12C		0.46H	0.5	0.49	0.05	2.43J 0K		3.93E	
0.72 - 1.09	3.99C		0.22H	0.34	0.38	0.01	2.96J 0K		3.9E	

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 - 0.13		11.03B		448.4B	0.39A			55.33			
0.13 - 0.28		7.47B		454.7B	0.26A			52.97			
0.28 - 0.44		5.43B		330.1B	0.15A			42.11			
0.44 - 0.72		1.86B		228B	0.06A			43.51			
0.72 - 1.09		0.42B		191.8B	0.02A			35.11			

[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 (%)