

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0013 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	14/02/96	Elevation:	1010 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6029535 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	620279 Datum: AGD66	Drainage:	Imperfectly drained

Geology

ExposureType:	No Data	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	Dga	Substrate Material:	Hornfels

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Lower-slope	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	No Data
Slope:	%	Aspect:	90 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic-Mottled Mesotrophic Brown Kandosol Medium Non-gravelly Clay-loamy Clayey Very deep	Principal Profile Form:	Gn4.51

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

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.15 m	Black (10YR2/1-Moist); ; Clay loam; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5.5 (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 -
B21	0.15 - 0.4 m	Yellowish brown (10YR5/4-Moist); Biological mixing, 10YR31, 10-20% , Distinct; Clay loam; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Very few (0 - 2 %), Ferromanganiferous, Medium (2 -6 mm), Nodules, weak, segregations;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; Gradual, Smooth change to -
B22	0.4 - 0.62 m	Brownish yellow (10YR6/6-Moist); Substrate influence, 10YR64, 20-50% , Faint; Light clay; Weak grade of structure, 20-50 mm, Polyhedral; Earthy fabric; Moist; Firm consistence; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual, Smooth change to -
B23	0.62 - 1.45 m	Light yellowish brown (10YR6/4-Moist); Substrate influence, 7.5YR56, 20-50% , Distinct; Clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Earthy fabric; Moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, angular, dispersed, Quartz, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B31	1.45 - 2 m	Strong brown (7.5YR5/6-Moist); Substrate influence, 10YR64, 20-50% , Distinct; Clay loam; Weak grade of structure; Moist; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
B32g	2 - 2.7 m	Light brownish grey (2.5Y6/2-Moist); Substrate influence, 7.5YR66, 20-50% , Distinct; Medium sandy clay loam; Wet; Field pH 5 (Raupach); Diffuse, Smooth change to -
B33g	2.7 - 3 m	Light brownish grey (2.5Y6/3-Moist); Substrate influence, 10YR66, 2-10% , Distinct; Light clay; Wet; Field pH 5 (Raupach);

Morphological Notes

B33g Gleyed and heavier than layer 6

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Mica throughout and abundant at depth. Metased rock at base of profile - mixed origin profile? Site was flooded in Dec.

Site Notes

COMP 18H 734-1,92D 375FR PENNY RD

Observation Notes

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Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				cmol (+)/kg				%
0 - 0.15	4.55C		4.82H	1.73	0.88	0.05	1.59J 0K		9.07E	
0.15 - 0.4	4.15C		0.48H	0.75	0.31	0.01	1.51J 0K		3.07E	
0.4 - 0.62	4.06C		0.39H	1.06	0.29	0.02	1.53J 0K		3.29E	
0.62 - 1.45	4.14C		0.68H	1.62	0.3	0.03	1J 0K		3.63E	
1.45 - 2	4.2C		0.78H	1.74	0.33	0.02	0.78J 0K		3.66E	
2 - 2.7	4.12C		0.56H	1.03	0.15	0.03	0.68J 0K		2.44E	
2.7 - 3	4.03C		0.71H	1.45	0.2	0.03	1.05J 0K		3.46E	

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 - 0.15		5.23B		708B	0.27A		0.83		28.22			
0.15 - 0.4		0.73B		376.2B	0.05A		1.29		29.86			
0.4 - 0.62		0.29B		285.6B	0.02A		1.47		30.29			
0.62 - 1.45		0.13B		275.8B	0.01A		1.44		24.76			
1.45 - 2		0.08B		255.4B	0.01A				20.5			
2 - 2.7		0.07B		91.9B	0.01A				16.96			
2.7 - 3		0.05B		96B	0.01A							

[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