

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0113 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: N.J. McKenzie	Locality:
Date Desc.: 25/04/96	Elevation: 1106 metres
Map Ref.: Sheet No. : 8526 DGPS	Rainfall: No Data
Northing/Long.: 6057175 AMG zone: 55	Runoff: No Data
Easting/Lat.: 608924 Datum: AGD66	Drainage: Rapidly drained

Geology

ExposureType: No Data	Conf. Sub. is Parent. Mat.: Probable
Geol. Ref.: Sgg	Substrate Material: Granodiorite

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: 16 %	Aspect: 270 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Acidic Dystrophic Red Kandosol Medium Non-gravelly Silty Clayey Very deep	Principal Profile Form: Gn4.11

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

O1	0 - 0.01 m	Organic Layer; ;
A1	0.01 - 0.2 m	Dark reddish brown (5YR3/3-Moist); Biological mixing, 5YR34, 20-50% , Faint; Silty clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Firm 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; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.2 - 0.56 m	Red (2.5YR4/6-Moist); Biological mixing, 5YR32, 10-20% , Distinct; Light clay; Moderate grade of structure, 20-50 mm, Polyhedral; 5-10 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; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
B22	0.56 - 1.51 m	Red (2.5YR4/6-Moist); ; Light clay; Weak grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 0-2%, cobbly, 60-200mm, angular tabular, dispersed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; 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; Diffuse, Smooth change to -
BC	1.51 - 2.41 m	Yellow (10YR7/8-Moist); Substrate influence, 10YR74, 20-50% , Faint; Silty clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Very weak consistence; Field pH 5.5 (Raupach); Diffuse, Smooth change to -
C	2.41 - 3.01 m	Yellow (10YR7/6-Moist); Substrate influence, 10YR74, 20-50% , Faint; Sandy loam; Massive grade of structure; Moderately moist; Very weak consistence; Field pH 5.5 (Raupach);

Morphological Notes

A1	Layer is riddled with fungus. A horizon is relatively light coloured thick and uniformly drilled by worms.
B21	Some fungus continues. Layer is thick and uniform. Clay max.
B22	Similar to 2 with pedality evident along with some mica.
BC	Diffuse change to a contrasting and bright yellow BC horizon. Some minor development of fabric.

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C Primary minerals (particularly mafic minerals) increase and colour is more dull.

Observation Notes

Colluvial site with very thick layers and diffuse boundaries a feature. Fungi are abundant, prf 3m from a large ash stump. Clay max. in layer 2 and v. silty. Site has been disturbed by logging

Site Notes

1 2H, 3884-2, 50MNW FR/CK, THEN 330M 29D

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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 - 0.01										
0.01 - 0.2	4.1C		1.37H	0.77	0.74	0.15	6.66J OK		9.69E	
0.2 - 0.56	4.3C		0.15H	0.79	0.56	0.13	5.8J OK		7.43E	
0.56 - 1.51	3.99C		0.07H	0.43	0.47	0.1	4.68J OK		5.75E	
1.51 - 2.41	4.2C		0H	0.47	0.44	0.12	1.48J OK		2.51E	
2.41 - 3.01	4.21C		0.07H	0.32	0.34	0.07	1.14J OK		1.93E	

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk Density	Particle		Size	Analysis	
	%	C	P	P	N	K		GV	CS		FS	Silt
m		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.01												
0.01 - 0.2		5.44B		395.3B	0.17A		0.73	47.7				
0.2 - 0.56		1.96B		280.5B	0.08A		0.91	29.13				
0.56 - 1.51		0.6B		317.7B	0.04A		1.10	34.6				
1.51 - 2.41		0.09B		260.6B	0A			13.37				
2.41 - 3.01		0.06B		286.7B	0A			11.68				

[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