

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0099 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	N.J. McKenzie	Locality:	
Date Desc.:	17/04/96	Elevation:	1202 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6044182 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	604857 Datum: AGD66	Drainage:	Rapidly drained

Geology

ExposureType:	No Data	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	TB	Substrate Material:	Basalt

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:	30 %	Aspect:	315 degrees

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Haplic Eutrophic Red Dermosol Medium Non-gravelly Clay-loamy Clayey Deep	Principal Profile Form:	Gn4.11

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

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.04 m	Organic Layer; ;
A1	0.04 - 0.17 m	Dark reddish brown (5YR2.5/2-Moist); ; Clay loam; Strong grade of structure, <2 mm, Granular; 2-5 mm, Granular; Rough-ped fabric; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subrounded tabular, dispersed, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Smooth change to -
A3	0.17 - 0.28 m	Reddish brown (5YR4/4-Moist); Biological mixing, 5YR2.52, 20-50% , Distinct; Light clay; Moderate grade of structure, 10-20 mm, Polyhedral; 2-5 mm, Granular; Rough-ped fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subrounded tabular, dispersed, Basalt, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B21	0.28 - 0.64 m	Dark reddish brown (5YR3/4-Moist); Biological mixing, 5YR2.52, 2-10% , Distinct; Light clay; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subrounded tabular, dispersed, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (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	0.64 - 0.84 m	Reddish brown (5YR4/4-Moist); Biological mixing, 5YR2.52, 2-10% , Distinct; Light clay; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, subrounded tabular, dispersed, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
B23	0.84 - 1.39 m	Yellowish red (5YR4/5-Moist); ; Light clay; Weak grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, dispersed, Basalt, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots;

Morphological Notes

A1	Very organic loose soil with many fine granular peds. Hydrophobic in places.
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A3 Layer may qualify as an A2 and is borderline to a B1. Slight yellowing suggests translocation of iron. Many back-filled casts.

B21 B2/1 is not as red as at other sites. Structure persists.

B22 Similar to layer 3 but roots declining.

B23 Layer may continue to depth, but too many floaters.

Observation Notes

A large windthrow above the site. Colluvium from upslope has accumulated. Profile is not red as other sites, and a hint of podzolisation. Few trees - is site wetter as a consequence?

Site Notes

COMP 85H 6497-1, BRG 68, 180M FROM ROAD

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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	5.37C		44.53H	8.68	2.28	0.12	0.09J 0K		55.71E	
0.17 - 0.28	5.24C		15.7H	3.62	1.85	0.09	0.24J 0K		21.49E	
0.28 - 0.64	5.3C		10.58H	3.73	1.99	0.05	0.08J 0K		16.43E	
0.64 - 0.84	5.27C		9.33H	4.24	2.04	0.03	0.09J 0K		15.73E	
0.84 - 1.39	5.14C		6.75H	4.76	1.81	0.04	0.11J 0K		13.47E	

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		17.13B		1762.1B	0.3A		0.48	36.72			
0.17 - 0.28		3.71B		2178.7B	0.15A		0.74	36.18			
0.28 - 0.64		1.96B		1623.8B	0.07A		0.92	32.36			
0.64 - 0.84		1.33B		1374.1B	0.04A		0.86	30.14			
0.84 - 1.39		0.9B		1287.4B	0.01A			28.94			

[illegible]

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Laboratory Analyses Completed for this profile

13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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 (%)
P10_S_0.48	0.48 micron (cumulative %) - Sedigraph
P10_S_1	1 micron (cumulative %) - Sedigraph
P10_S_1000	1000 micron (cumulative %) - Sedigraph
P10_S_125	125 micron (cumulative %) - Sedigraph
P10_S_15.6	15.6 micron (cumulative %) - Sedigraph
P10_S_2	2 micron (cumulative %) - Sedigraph
P10_S_20	20 micron (cumulative %) - Sedigraph
P10_S_2000	2000 micron (cumulative %) - Sedigraph
P10_S_250	250 micron (cumulative %) - Sedigraph
P10_S_3.9	3.9 micron (cumulative %) - Sedigraph
P10_S_31.2	31.2 micron (cumulative %) - Sedigraph
P10_S_500	500 micron (cumulative %) - Sedigraph
P10_S_53	53 micron (cumulative %) - Sedigraph
P10_S_63	63 micron (cumulative %) - Sedigraph
P10_S_7.8	7.8 micron (cumulative %) - Sedigraph
P3A1	Bulk density - g/cm3