

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0031 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	19/02/96	Elevation:	1152 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6027039 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	614036 Datum: AGD66	Drainage:	Moderately well drained

Geology

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

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:	0 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Bleached Magnesic Red Kurosol Thin Slightly gravelly Clay-loamy Clayey Very deep	Principal Profile Form:	Dr2.21
ASC Confidence:	Great Soil Group:	Red podzolic soil

All necessary analytical data are available.

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

Vegetation:

Surface Coarse Fragments: 2-10%, coarse gravelly, 20-60mm, rounded tabular, Granite

Profile Morphology

A1	0 - 0.08 m	Dark brown (7.5YR3/2-Moist); ; Fine sandy clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Dry; Firm consistence; 2-10%, medium gravelly, 6-20mm, angular tabular, Coal, coarse fragments; Field pH 4.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Abrupt, Wavy change to -
A2	0.08 - 0.15 m	Brown (10YR4/3-Moist); Light brownish grey (10YR6/2-Dry); Biological mixing, 7.5YR32, 10-20% , Distinct; Fine sandy clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Firm consistence; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Wavy change to -
B1	0.15 - 0.28 m	Strong brown (7.5YR4/6-Moist); Biological mixing, 7.5YR32, 10-20% , Distinct; Light medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Clear, Irregular change to -
B21	0.28 - 0.55 m	Yellowish red (5YR4/6-Moist); ; Light clay; Weak grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Moderately moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, angular tabular, Coal, coarse fragments; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.55 - 1.4 m	Yellowish red (5YR4/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Firm consistence; 2-10%, medium gravelly, 6-20mm, subrounded tabular, Granite, coarse fragments; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual change to -
B3	1.4 - 1.75 m	Strong brown (7.5YR5/6-Moist); Substrate influence, 5YR58, 2-10% , Faint; Fine sandy clay loam; Sandy (grains prominent) fabric; Moderately moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded, Granite, coarse fragments; Field pH 4 (Raupach); Clear change to -
C	1.75 - 2 m	Reddish yellow (7.5YR6/6-Moist); Substrate influence, 5YR68, 2-10% , Faint; Fine sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Moderately moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded, Granite, coarse fragments; Field pH 4 (Raupach);

Morphological Notes

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A1 Fine sand content would indicate colluvial influence.
A2 As for layer 1.

Observation Notes

PM is granitic: a fine K-feldspar matrix with phenocryst of quartz and biotite.

Site Notes

COMP 38H, 3986-1,184D,575M, FROM 76921

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol	Exchangeable Acidity (+)/kg	CEC	ECEC	ESP %
0 - 0.08	4.4C		4.77H	1.23	0.51	0	1.86J 0K		8.37E	
0.08 - 0.15	4.34C		1.75H	0.79	0.43	0	1.54J 0K		4.51E	
0.15 - 0.28	4.47C		2.3H	1.35	0.47	0	1.18J 0K		5.3E	
0.28 - 0.55	4.25C		1.06H	1.22	0.66	0	2J 0K		4.94E	
0.55 - 1.4	4.07C		0H	0.76	0.82	0.01	3.01J 0K		4.61E	
1.4 - 1.75	4.08C		0H	0.29	0.74	0	1.75J 0K		2.78E	
1.75 - 2	4.06C		0H	0.19	0.45	0.01	1.48J 0K		2.12E	

Depth m	CaCO3	Organic	Avail.	Total	Total	Total	Bulk Density Mg/m3	Particle		Size FS %	Analysis	
	%	C %	P mg/kg	P %	N %	K %		GV	CS		Silt	Clay
0 - 0.08		3.87B		136.3B	0.17A		1.10	34.3				
0.08 - 0.15		1.5B		79.4B	0.07A		1.34	25.05				
0.15 - 0.28		1.19B		80.7B	0.05A		1.31	32.26				
0.28 - 0.55		0.63B		75.5B	0.03A		1.34	33.31				
0.55 - 1.4		0.3B		71.1B	0.02A		1.23	25.89				
1.4 - 1.75		0.1B		60.3B	0A			17.15				
1.75 - 2		0.05B		21.8B	0A			19.58				

[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