

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0062 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: N.J. McKenzie	Locality:
Date Desc.: 12/01/96	Elevation: 1119 metres
Map Ref.: Sheet No. : 8526 DGPS	Rainfall: No Data
Northing/Long.: 6044388 AMG zone: 55	Runoff: No Data
Easting/Lat.: 614485 Datum: AGD66	Drainage: Well drained

Geology

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

Land Form

Rel/Slope Class: No Data	Pattern Type: No Data
Morph. Type: Mid-slope	Relief: No Data
Elem. Type: No Data	Slope Category: No Data
Slope: 38 %	Aspect: 270 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Haplic Eutrophic Red Dermosol Medium Non-gravelly Clay-loamy 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

A11	0 - 0.13 m	Dark reddish brown (5YR3/2-Moist); ; Clay loam; Moderate grade of structure, 20-50 mm, Subangular blocky; 2-5 mm, Granular; Rough-ped fabric; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; 0-2%, cobbly, 60-200mm, rounded platy, dispersed, Granodiorite, 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; Gradual, Smooth change to -
B21	0.13 - 0.35 m	Dark reddish brown (5YR3/3-Moist); ; Clay loam; Moderate grade of structure, 20-50 mm, Subangular blocky; 2-5 mm, Granular; Rough-ped fabric; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; Few cutans, <10% 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; Few, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.35 - 0.6 m	Dark reddish brown (5YR3/4-Moist); ; Light clay; Moderate grade of structure, 10-20 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; 0-2%, cobbly, 60-200mm, rounded platy, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual, Smooth change to -
B23	0.6 - 0.9 m	Dark red (2.5YR3/6-Moist); ; Clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Earthy fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; 0-2%, cobbly, 60-200mm, rounded platy, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Gradual, Smooth change to -
B3	0.9 - 1.3 m	Yellowish red (5YR4/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Gradual, Smooth change to -

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C1	1.3 - 1.8 m	Strong brown (7.5YR5/8-Moist); ; Clay loam; Massive grade of structure; Sandy (grains prominent) fabric; Moderately moist; Very weak consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; Field pH 5.5 (Raupach); Diffuse, Smooth change to -
C2	1.8 - 3 m	Brownish yellow (10YR6/8-Moist); Substrate influence, 5YR56, 20-50% , Faint; Medium sandy clay loam; Massive grade of structure; Sandy (grains prominent) fabric; Moderately moist; Very weak consistence; 2-10%, fine gravelly, 2-6mm, subangular, stratified, Quartz, coarse fragments; 2-10%, fine gravelly, 2-6mm, subangular, stratified, coarse fragments; Field pH 5.5

Morphological Notes

A11	Subangular blocky grading to polyhedral.
B21	Subangular blocky grading to polyhedral.
B3	Granodiorite influence is clear from here down.
C2	Layer toughens at base and may be nearing substrate.

Observation Notes

Site Notes

COMP 118H,6420-1,BRG 52.5D,650M FR RD

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity			%
						Cmol	(+)/kg			
0 - 0.13	5.09C		16.8H	2.3	1.4	0.08	0.27J 0K		20.85E	
0.13 - 0.35	5.05C		8.04H	1.63	1.19	0.06	0.35J 0K		11.27E	
0.35 - 0.6	5.09C		6.73H	2.02	1.07	0.07	0.09J 0K		9.98E	
0.6 - 0.9	5.16C		5.98H	2.27	1.05	0.07	0.05J 0K		9.43E	
0.9 - 1.3	5.17C		3.57H	1.61	0.97	0.1	0.04J 0.06K		6.36E	
1.3 - 1.8	4.56C		1.82H	0.81	1.03	0.23	0.44J 0K		4.32E	
1.8 - 3	4.37C		1.72H	0.82	0.48	0.09	0.71J 0K		3.82E	

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle			Analysis	
								GV	CS	FS	Silt	Clay
m	%	C	P	P	N	K	Density					
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.13		6.32B		2494.6B	0.3A		0.94	30.21				
0.13 - 0.35		1.51B		1850B	0.1A		1.06	24.09				
0.35 - 0.6		0.61B		1363.5B	0.06A		1.31	28.26				
0.6 - 0.9		0.48B		1248.4B	0.05A		1.22	27.08				
0.9 - 1.3		0.2B		1061.1B	0.03A			20.84				
1.3 - 1.8		0.1B		1046.2B	0.01A			14.89				
1.8 - 3		0.05B		500.4B	0.02A			10.46				

[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 (%)
P3A1	Bulk density - g/cm3