

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0078 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	22/11/95	Elevation:	No Data
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6030735 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	616391 Datum: AGD66	Drainage:	Well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Os	Substrate Material:	No Data

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:	13 %	Aspect:	315 degrees

Surface Soil Condition (dry): Loose

Erosion: Partial, Minor (sheet)

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Magnesic Red Dermosol Medium Non-gravelly Clayey Clayey Very deep	Principal Profile Form:	Uf6.12
ASC Confidence:	Great Soil Group:	No suitable group
All necessary analytical data are available.		

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 0-2%, coarse gravelly, 20-60mm, subangular tabular, Schist; 0-2%, cobbly, 60-200mm, angular platy, Schist

Profile Morphology

O1	0 - 0.02 m	Organic Layer; ;
A1	0.02 - 0.13 m	Dark reddish brown (5YR2.5/2-Moist); Biological mixing, 5YR33, 2-10% , Faint; Light clay; Strong grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Wavy change
A3	0.13 - 0.27 m	Dark reddish brown (5YR3/3-Moist); Biological mixing, 5YR2.52, 20-50% , Faint; Light clay; Strong grade of structure, 5-10 mm, Polyhedral; 10-20 mm, Subangular blocky; Smooth-ped fabric; Moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, Schist, coarse fragments; Few cutans, <10% 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; Gradual, Smooth change to -
B1	0.27 - 0.42 m	Dark reddish brown (5YR3/4-Moist); Biological mixing, 5YR2.52, 10-20% , Distinct; Light clay; Moderate grade of structure, 5-10 mm, Polyhedral; Smooth-ped fabric; Moist; Weak consistence; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Smooth change to -
B21	0.42 - 0.72 m	Red (2.5YR4/6-Moist); Biological mixing, 5YR32, 2-10% , Distinct; Light medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B22	0.72 - 1.22 m	Red (2.5YR4/6-Moist); ; Light medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Few, very fine (0-1mm) roots;
B22	1.22 - 1.82 m	Red (2.5YR4/6-Moist); ; Light medium clay; 0-2%, fine gravelly, 2-6mm, angular tabular, Quartz, coarse fragments; Field pH 5 (Raupach);
B23	1.82 - 2.32 m	Dark reddish brown (5YR3/4-Moist); ; Light medium clay; 0-2%, fine gravelly, 2-6mm, subangular tabular, Schist, coarse fragments; Field pH 4.5 (Raupach);
B23	2.32 - 2.67 m	Dark reddish brown (5YR3/4-Moist); ; Light medium clay; 0-2%, fine gravelly, 2-6mm, subangular tabular, Schist, coarse fragments; Field pH 4.5 (Raupach);

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B3 2.67 - 3.02 m Dark reddish brown (2.5YR3/4-Moist); ; Medium clay; 0-2%, fine gravelly, 2-6mm, subangular tabular, Schist, coarse fragments; Field pH 4.5 (Raupach);

Morphological Notes

B23 Colour darkens from above layer.

B3 Colour hues becomes redder. Auger ceased at 3m.

Observation Notes

Site Notes

COMP 17H,2944-1,BRG 102DEG,150M FR RD

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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 - 0.02										
0.02 - 0.13	4.25C		4.68H	1.95	1.2	0.05	5.29J 0K		13.17E	
0.13 - 0.27	4.23C		1.7H	1.47	0.98	0.04	3.12J 0K		7.31E	
0.27 - 0.42	4.1C		0.86H	1.04	0.81	0.03	3.38J 0K		6.11E	
0.42 - 0.72	3.96C		0.14H	0.59	0.83	0.02	4.29J 0K		5.86E	
0.72 - 1.22	3.93C		0H	0.52	0.63	0.01	4.28J 0K		5.44E	
1.22 - 1.82	3.9C		0H	0.28	0.47	0.02	4.47J 0K		5.24E	
1.82 - 2.32	3.94C		0H	0.15	0.45	0.01	3.99J 0K		4.59E	
2.32 - 2.67	3.94C		0H	0.15	0.61	0.03	4.25J 0K		5.03E	
2.67 - 3.02	3.87C		0H	0.2	0.53	0.01	5.24J 0K		5.99E	

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.02												
0.02 - 0.13		8.06B		600.4B	0.27A		0.75	36.17				
0.13 - 0.27		2.78B		500.9B	0.13A		1.13	46.51				
0.27 - 0.42		1.76B		461.1B	0.09A		0.96	29.83				
0.42 - 0.72		0.96B		421.4B	0.05A		1.08	28.56				
0.72 - 1.22		0.29B		386.6B	0.03A		1.18	35.55				
1.22 - 1.82		0.3B		322.3B	0.03A			31.72				
1.82 - 2.32		0.41B		247B	0.03A			31.91				
2.32 - 2.67		0.55B		239.8B	0.04A			37.05				
2.67 - 3.02		0.45B		262.9B	0.04A			38.38				

[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