

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0007 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	18/12/95	Elevation:	1032 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6030855 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	618449 Datum: AGD66	Drainage:	Well drained

Geology

ExposureType:	No Data	Conf. Sub. is Parent. Mat.:	Probable
Geol. Ref.:	Os	Substrate Material:	Schist

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:	29 %	Aspect:	135 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Dystrophic Red Dermosol Thin Gravelly Loamy Clay-loamy Very deep	Principal Profile Form:	Gn4.11
ASC Confidence:	Great Soil Group:	No suitable group
All necessary analytical data are available.		

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.06 m	Organic Layer; ;
A1	0.06 - 0.11 m	Dark reddish brown (5YR2.5/2-Moist); ; Loam (Fibric); Weak grade of structure, 2-5 mm, Granular; Rough-ped fabric; Moist; Very weak consistence; 10-20%, fine gravelly, 2-6mm, subangular, Coal, coarse fragments; Field pH 4.5 (Raupach); Abundant, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Few, medium (2-5mm) roots; Abrupt, Wavy change to -
A3	0.11 - 0.21 m	Dark reddish brown (5YR3/3-Moist); Biological mixing, 5YR2.5/2; Clay loam; Strong grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, subangular, Coal, coarse fragments; Field pH 5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Wavy change to -
B21	0.21 - 0.36 m	Yellowish red (5YR4/6-Moist); Biological mixing, 5YR3/3; Clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Firm consistence; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Smooth change to -
B22	0.36 - 0.82 m	Red (2.5YR4/6-Moist); Biological mixing, 7.5YR3/3; Silty clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 0-2%, medium gravelly, 6-20mm, subrounded tabular, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse change to -
B23	0.82 - 1.21 m	Yellowish red (5YR4/6-Moist); ; Silty clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 0-2%, medium gravelly, 6-20mm, angular tabular, Quartz, coarse fragments; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Diffuse change to -
B31	1.21 - 1.46 m	Brownish yellow (10YR6/8-Moist); ; Silty clay loam; Earthy fabric; Moderately moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subangular tabular, coarse fragments; Field pH 4.5 (Raupach); Clear change to -
C11	1.46 - 1.76 m	Reddish brown (2.5YR5/4-Moist); Substrate influence, 7.5YR6/6, 2-10% , Distinct; Silty clay loam; Earthy fabric; Moderately moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular tabular, coarse fragments; Field pH 4.5 (Raupach); Diffuse change to -

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- C12 1.76 - 2.66 m Yellowish red (5YR5/6-Moist); Substrate influence, 10YR76, 2-10% , Distinct; Silty clay loam; Earthy fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded tabular, coarse fragments; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Soft segregations, weak, segregations; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Veins, weak, segregations; Field pH 4.5 (Raupach); Clear change to -
- C21 2.66 - 2.91 m Red (2.5YR5/6-Moist); ; Silty clay loam; Earthy fabric; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular tabular, coarse fragments; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Soft segregations, weak, segregations; Field pH 4.5 (Raupach); Clear change to -
- C22 2.91 - 3.06 m Strong brown (7.5YR5/6-Moist); Substrate influence, 10YR64, 10-20% , Distinct; Silty clay loam; Earthy fabric; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular tabular, coarse fragments; Field pH 4.5 (Raupach);

Morphological Notes

- A1 Accumulation of charcoal although no obvious signs of a recent fire. Horizon is nearly an O2.
- C11 Colour change may indicate different parent material layer.
- C21 Colour similar to layer 7. Another parent material layer?

Observation Notes

Profile has deep "C" horizon comprised of a number of different coloured layers

Site Notes

COMP 14H,3418-1,318DEG,150M FR RD

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Laboratory Test Results:

[illegible]

Depth m	CaCO3	Organic	Avail.	Total	Total	Total	Bulk Density Mg/m3	Particle		Size	Analysis	
	%	C %	P mg/kg	P %	N %	K %		GV	CS	FS %	Silt	Clay
0 - 0.06												
0.06 - 0.11		13.53B		472.2B	0.49A			36.1				
0.11 - 0.21		5.09B		404B	0.25A		0.73	30.39				
0.21 - 0.36		0.95B		435B	0.03A		1.17	28.18				
0.36 - 0.82		0.4B		273B	0.04A		1.35	23.8				
0.82 - 1.21		0.17B		216.4B	0.02A		1.36	29.37				
1.21 - 1.46		0.14B		209.9B	0.01A			28.43				
1.46 - 1.76		0.21B		196B	0.01A			31.77				
1.76 - 2.66		0.2B		354.5B	0.02A			15.71				
2.66 - 2.91		0.08B		210B	0A			33.51				
2.91 - 3.06		0.14B		131.2B	0.01A			38.09				

[illegible]

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2.91 - 3.06

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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