Project Name: BAGO-MARAGLE FOREST SOIL SURVEY

Project Code: BGM_FSS Site ID: 0006 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: P. Ryan Locality:

Date Desc.: Elevation: 17/12/95 1074 metres Map Ref.: Sheet No.: 8526 DGPS Rainfall: No Data Northing/Long.: 6029692 AMG zone: 55 Runoff: No Data 617256 Datum: AGD66 Well drained Easting/Lat.: Drainage:

Geology

ExposureType: Soil pit Conf. Sub. is Parent. Mat.: Probable Geol. Ref.: Os Substrate Material: Schist

Land Form

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:Mid-slopeRelief:No DataElem. Type:HillslopeSlope Category:No DataSlope:11 %Aspect:315 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification: Mapping Unit: N/A
Acidic Mesotrophic Red Dermosol Thin Slightly gravelly ClayPrincipal Profile Form: Gn4.11

Ioamy Clayey Deep

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

A1 0 - 0.06 m (7.5YR2.5/2-Moist); ; Clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular tabular, coarse fragments; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots;

Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear,

Smooth change to -

A3 0.06 - 0.18 m Dark brown (7.5YR3/2-Moist); Biological mixing, 5YR44, 2-10%, Faint; Light clay; Strong grade

of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Firm consistence; 2-10%, medium gravelly, 6-20mm, subangular tabular, coarse fragments; 0-2%, fine gravelly, 2-6mm, subangular tabular, Quartz, coarse fragments; Field pH 5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common,

coarse (>5mm) roots; Clear, Smooth change to -

B21 0.18 - 0.45 m Dark reddish brown (2.5YR3/4-Moist); Biological mixing, 5YR33, 2-10%, Faint; Light clay;

Moderate grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Firm consistence; 2-10%, medium gravelly, 6-20mm, subangular tabular, coarse fragments; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium

(2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Irregular change to -

B3 0.45 - 0.72 m Red (2.5YR4/6-Moist); Biological mixing, 5YR44, 0-2%, Faint; Clay loam; Moderate grade of

structure, 5-10 mm, Polyhedral; 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular tabular, coarse fragments; Field pH 4.5 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium

(2-5mm) roots; Few, coarse (>5mm) roots; Clear, Irregular change to -

BC 0.72 - 1.1 m Red (2.5YR4/6-Moist); ; Fine sandy clay loam; Massive grade of structure; Earthy fabric; Moist;

Weak consistence; 50-90%, medium gravelly, 6-20mm, subangular tabular, coarse fragments; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-

5mm) roots;

Morphological Notes

B3 Sharp increase in large gravels which seem to have been transported.

BC Large gravel content increases above weathering substrate.

Observation Notes

Site Notes

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Laboratory Test Results:

Depth	рН	1:5 EC		hangeable Cations Mg K		Exchangeable Na Acidity Cmol (+)/kg		CEC	ECEC	ESP
m		dS/m	Ca I							%
0 - 0.06	4.72C		2.82H	1.95	0.31	0.16	0.25J 0K		5.48E	:
0.06 - 0.18	4.32C		2.5H	0.73	0.66	0.03	2.27J 0K		6.19E	:
0.18 - 0.45	4.31C		1.43H	8.0	0.6	0.04	1.67J 0K		4.55E	:
0.45 - 0.72	4.25C		1.04H	0.4	0.44	0.04	1.4J 0K		3.32E	
0.72 - 1.1	4.26C		0.04H	0.09	0.2	0.01	0.47J 0K		0.82E	
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	I Bulk Density	Par GV	ticle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3	GV	% %	Siit Clay
0 - 0.06 0.06 - 0.18		2.68B 0.97B		613.3E 453.9E			0.88 1.13	49.68 36.68		
0.18 - 0.45		0.56B		383.9E		-	1.13	20.74		
0.45 - 0.72		0.1B		327.6E	0.0	4A		27.82		
0.72 - 1.1		0.04B		288.6E	3 0.0	1A		24.89		
Depth	COLE									
m		Sat.	0.05 Bar		0.5 Bar /g - m3/m	1 Bar 13	5 Bar 15	Bar	mm/h	mm/h

0 - 0.06 0.06 - 0.18 0.18 - 0.45 0.45 - 0.72

0.72 - 1.1

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Laboratory Analyses Completed for this profile

15_NR Sum of Ex. cations + Ex. acidity - Not recorded

Exchangeable AI - by compulsive exchange, no pretreatment for soluble salts

15E1_AL 15E1_CA Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble

Exchangeable H - by compulsive exchange, no pretreatment for soluble salts 15E1_H

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 15E1_K 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

Air-dry moisture content 2A1

pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1 4B2 6B2 Total organic carbon - high frequency induction furnace, volumetric

7A2

Total nitrogen - semimicro Kjeldahl , automated colour Total Phosphorus (ppm) - semimicro kjeldahl, automated colour 9A3

P10_GRAV Gravel (%)

P3A1 Bulk density - g/cm3