Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0008** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: P. Ryan
Date Desc.: 18/12/95
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6030356 AMG zone: 55
Easting/Lat.: 618643 Datum: AGD66
Locality:
Elevation: 1096 metres
Rainfall: No Data
Runoff: No Data
Drainage: Well drained

Geology

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

Land Form

Rel/Slope Class: No Data
Morph. Type: Upper-slope
Elem. Type: Hillslope
Slope: 17 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 315 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Magnesic Red Kandosol Thin Non-gravelly Loamy Clay-loamy Deep

Mapping Unit: N/A
Principal Profile Form: Gn1.12

ASC Confidence:
All necessary analytical data are available.

Great Soil Group: Red earth

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.02 m	Organic Layer; ;
A1	0.02 - 0.1 m	(7.5YR2.5/2-Moist); ; Sandy loam; Weak grade of structure, 2-5 mm, Granular; Rough-ped fabric; Moist; Very weak consistence; Field pH 6.5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Smooth change to -
A3	0.1 - 0.2 m	Dark brown (7.5YR3/4-Moist); Biological mixing, 7.5YR2.52, 10-20% , Faint; Medium sandy clay loam; Moderate grade of structure, 2-5 mm, Granular; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Very weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded, Granodiorite, coarse fragments; Field pH 6.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Clear, Smooth change to -
B21	0.2 - 0.33 m	Yellowish red (5YR4/6-Moist); Biological mixing, 7.5YR32, 2-10% , Faint; Medium sandy clay loam; Moderate grade of structure, 2-5 mm, Granular; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded, Granodiorite, coarse fragments; Field pH 6 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
B22	0.33 - 0.72 m	Yellowish red (5YR4/6-Moist); ; Medium sandy clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, subrounded, Granodiorite, coarse fragments; 0-2%, medium gravelly, 6-20mm, angular platy, coarse fragments; Field pH 4.5 (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	0.72 - 1.32 m	Red (2.5YR4/6-Moist); ; Sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Very weak consistence; 10-20%, coarse gravelly, 20-60mm, subrounded, Granodiorite, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual change to -
C	1.32 - 1.47 m	Dark yellowish brown (10YR4/6-Moist); Substrate influence, 2.5YR48, 2-10% , Distinct; Clayey sand; Single grain grade of structure; Sandy (grains prominent) fabric; Moderately moist; Loose consistence; Field pH 7 (Raupach); Clear change to -

Morphological Notes

B22 Increase in large weakly weathered gravel includes piece of ordovician metasediment. Origin in xenolith or screen inclusion.

Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0008** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

B3	Weakly weathered gravel decreases. Large pieces of strongly weathered substrate.

Observation Notes

Parent material has high mafic content, more like granodiorite than adamellite.

Site Notes

COMP 21H,105-1,BEARING 155DEG,412M

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0008 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations				Exchangeable Acidity	CEC	ECEC	ESP
			Ca	Mg	K	Na				
m		dS/m	Cmol (+)/kg							%
0 - 0.02										
0.02 - 0.1	5.16C		11.15H	1.33	0.89	0.05	0.27J 0K		13.7E	
0.1 - 0.2	4.97C		3.79H	0.79	0.67	0.07	0.77J 0K		6.09E	
0.2 - 0.33	4.82C		1.55H	1.01	0.63	0.04	0.76J 0K		3.99E	
0.33 - 0.72	4.21C		0H	0.17	0.54	0.03	1.16J 0K		1.9E	
0.72 - 1.32	4.26C		0H	0.23	0.29	0.04	0.73J 0K		1.3E	
1.32 - 1.47	4.35C		0H	0.04	0.17	0	0.17J 0.18K		0.56E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.02												
0.02 - 0.1		6.2B		300.9B	0.28A		0.93	26.77				
0.1 - 0.2		3.27B		255.2B	0.17A		1.20	29.24				
0.2 - 0.33		1.42B		240.3B	0.09A		1.27	28.16				
0.33 - 0.72		0.4B		158.4B	0.02A		1.38	21.07				
0.72 - 1.32		0.13B		154.6B	0.01A		1.46	14.02				
1.32 - 1.47		0.06B		98.7B	0.01A			13.13				

Depth	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	
m		g/g - m3/m3						mm/h	mm/h
0 - 0.02									
0.02 - 0.1									
0.1 - 0.2									
0.2 - 0.33									
0.33 - 0.72									
0.72 - 1.32									
1.32 - 1.47									

Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0008** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

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