Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0129** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: P. Ryan
Date Desc.: 15/05/96
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6052196 AMG zone: 55
Easting/Lat.: 602162 Datum: AGD66
Locality:
Elevation: 1174 metres
Rainfall: No Data
Runoff: No Data
Drainage: Rapidly drained

Geology

ExposureType: Soil pit
Geol. Ref.: Sgg
Conf. Sub. is Parent. Mat.: Probable
Substrate Material: Granodiorite

Land Form

Rel/Slope Class: No Data
Morph. Type: Crest
Elem. Type: Hillcrest
Slope: 11 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 90 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Dystrophic Red Kandosol Medium Non-gravelly Loamy Clay-loamy Very deep
Mapping Unit: N/A
Principal Profile Form: Gn4.11
ASC Confidence:
All necessary analytical data are available.
Great Soil Group: Red earth

Site Disturbance: No effective disturbance other than grazing by hoofed animals

Vegetation:

Surface Coarse Fragments:

Profile Morphology

O1	0 - 0.03 m	Organic Layer; ;
A1	0.03 - 0.14 m	Dark reddish brown (5YR3/2-Moist); Mechanical, 7.5YR46, 2-10% , Distinct; Sandy loam; Moderate grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; Field pH 4.5 (Raupach); Common, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Broken change to -
B1	0.14 - 0.26 m	Reddish brown (5YR4/3-Moist); Biological mixing, 7.5YR33, 10-20% , Faint; Silty clay loam; Moderate grade of structure, 5-10 mm, Angular blocky; 2-5 mm, Polyhedral; Smooth-ped fabric; Moist; Weak consistence; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Wavy change to -
B21	0.26 - 0.54 m	Dark red (2.5YR3/6-Moist); Biological mixing, 7.5YR33, 0-2% , Faint; Silty clay loam; Weak grade of structure, 10-20 mm, Subangular blocky; Rough-ped fabric; Moist; Weak consistence; 0-2%, medium gravelly, 6-20mm, subangular, Granodiorite, coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Diffuse, Smooth change to -
B22	0.54 - 0.76 m	Yellowish red (5YR4/6-Moist); ; Medium sandy clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 0-2%, medium gravelly, 6-20mm, subangular, Granodiorite, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Wavy change to -
BC	0.76 - 1.18 m	Yellowish brown (10YR5/8-Moist); ; Coarse sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Moist; Very weak consistence; 20-50%, cobbly, 60-200mm, subrounded, Granodiorite, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Clear change to -
C1	1.18 - 1.73 m	Light olive brown (2.5Y5/4-Moist); ; Clayey coarse sand; Massive grade of structure; Sandy (grains prominent) fabric; Moderately moist; Very weak consistence; 20-50%, Granodiorite, coarse fragments; Field pH 5.5 (Raupach); Diffuse change to -
C2	1.73 - 3.03 m	Light brownish grey (2.5Y6/3-Moist); ; Loamy coarse sand; Massive grade of structure; Sandy (grains prominent) fabric; Moderately moist; Very weak consistence; 20-50%, Granodiorite, coarse fragments; Field pH 6.5 (Raupach);

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A1	Horrizon has been disturbed - scalped by logging operations.
C1	C horizons had some indurated core stones but auger passed through them all.

Observation Notes

Site Notes

17198-1 COMP43H 215D 165M,145D 50M CK

Morphological Notes

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0129 **Observation ID:** 1
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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 - 0.03										
0.03 - 0.14	4.06C		2.2H	0.66	0.73	0.13	7.19J 0K		10.89E	
0.14 - 0.26	4.16C		0.58H	0.32	0.34	0.04	3.38J 0K		4.66E	
0.26 - 0.54	4.08C		0.31H	0.57	0.48	0.05	2.91J 0K		4.33E	
0.54 - 0.76	4.08C		0.16H	0.3	0.48	0.04	1.7J 0K		2.68E	
0.76 - 1.18	4.15C		0.09H	0.12	0.25	0.04	0.87J 0K		1.38E	
1.18 - 1.73	4.1C		0.09H	0.12	0.22	0.04	1.24J 0K		1.71E	
1.73 - 3.03	4.25C		0.1H	0.07	0.25	0.04	0.77J 0K		1.22E	

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 - 0.03												
0.03 - 0.14		7.31B		356.3B	0.23A		0.64	16.96				
0.14 - 0.26		2.74B		240.2B	0.11A		1.02	13.85				
0.26 - 0.54		0.83B		150.5B	0.05A		1.10	6.19				
0.54 - 0.76		0.24B		105.9B	0.02A		1.36	9.72				
0.76 - 1.18		0.1B		103.2B	0.01A			8.73				
1.18 - 1.73		0.09B		185.4B	0.01A			11				
1.73 - 3.03		0.07B		156B	0A			9.33				

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 - 0.03									
0.03 - 0.14									
0.14 - 0.26									
0.26 - 0.54									
0.54 - 0.76									
0.76 - 1.18									
1.18 - 1.73									
1.73 - 3.03									

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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