Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0142** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: P. Ryan
Date Desc.: 22/05/96
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6059268 AMG zone: 55
Easting/Lat.: 613165 Datum: AGD66
Locality:
Elevation: 580 metres
Rainfall: No Data
Runoff: No Data
Drainage: Moderately well drained

Geology

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

Land Form

Rel/Slope Class: No Data
Morph. Type: Mid-slope
Elem. Type: Hillslope
Slope: 22 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 315 degrees

Surface Soil Condition (dry): Firm

Erosion: Stable, Minor (sheet)

Soil Classification

Australian Soil Classification:
Bleached-Acidic Magnesic Red Dermosol Thin Gravelly Loamy Clayey Moderately deep

Mapping Unit: N/A
Principal Profile Form: Gn4.14

ASC Confidence:
All necessary analytical data are available.

Great Soil Group: Red podzolic soil

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 10-20%, fine gravelly, 2-6mm, subangular, Coal; 10-20%, medium gravelly, 6-20mm, angular tabular, Coal

Profile Morphology

O1	0 - 0.02 m	Organic Layer; ;
A1	0.02 - 0.04 m	Very dark grey (7.5YR3/1-Moist); ; Loam; Weak grade of structure, <2 mm, Granular; Rough-ped fabric; Moderately moist; Very weak consistence; 10-20%, fine gravelly, 2-6mm, subangular, Coal, coarse fragments; Field pH 5.5 (Raupach); Few, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Sharp, Smooth change to -
A2	0.04 - 0.1 m	Strong brown (7.5YR5/6-Moist); ; Clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moderately moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, angular tabular, Coal, coarse fragments; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Few, coarse (>5mm) roots; Clear, Wavy change to -
B2	0.1 - 0.36 m	Yellowish red (5YR4/6-Moist); ; Light clay; Moderate grade of structure, 10-20 mm, Subangular blocky; 5-10 mm, Polyhedral; Smooth-ped fabric; Moderately moist; Firm consistence; 10-20%, medium gravelly, 6-20mm, subangular, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, coarse (>5mm) roots; Clear, Irregular change to -
BC	0.36 - 0.72 m	Red (2.5YR4/6-Moist); Substrate influence, 2.5Y66, 20-50% , Distinct; Light clay; Moderate grade of structure, 5-10 mm, Polyhedral; Smooth-ped fabric; Moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subangular, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, coarse (>5mm) roots; Gradual, Irregular change to -

Morphological Notes

A1	Very thin layer (approx 2cm) indicates fire and erosion in recent history.
A2	Lack of structure due to recent colluvial origin.
BC	Yellow mottle due to weathering. Clay skins evident in weathering substrate.

Observation Notes

Recent fire evidence <10yrs. Pig disturbance of surface soil.

Site Notes

COMP 121H 1449-1 297D 550M FROM TRACK

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0142 **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 - 0.04	4.04C		5.16H	2.14	0.74	0.08	1.18J 1.09K		10.39E	
0.04 - 0.1	3.9C		0.32H	0.89	0.47	0.06	4.55J 0K		6.28E	
0.1 - 0.36	3.96C		0.11H	1.7	0.34	0.05	3.8J 0K		6.01E	
0.36 - 0.72	4.07C		0.1H	4.03	0.3	0.07	3.02J 0K		7.52E	

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 - 0.04		16.86B		558.3B	0.5A			38.44				
0.04 - 0.1		2.99B		389.8B	0.1A		0.99	21.03				
0.1 - 0.36		0.98B		285.6B	0.06A		1.03	12.49				
0.36 - 0.72		0.39B		383.1B	0.04A		1.29	19.06				

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 - 0.04										
0.04 - 0.1										
0.1 - 0.36										
0.36 - 0.72										

Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0142** **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