Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0102** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: P. Ryan
Date Desc.: 22/04/96
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6056625 AMG zone: 55
Easting/Lat.: 597513 Datum: AGD66
Locality:
Elevation: 1038 metres
Rainfall: No Data
Runoff: No Data
Drainage: No Data

Geology

ExposureType: Soil pit
Geol. Ref.: Tb
Conf. Sub. is Parent. Mat.: Probable
Substrate Material: Basalt

Land Form

Rel/Slope Class: No Data
Morph. Type: Upper-slope
Elem. Type: Hillslope
Slope: 19 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 180 degrees

Surface Soil Condition (dry): Firm

Erosion: Partial, No sheet erosion (sheet)

Soil Classification

Australian Soil Classification:
Haplic Eutrophic Red Dermosol Thin Slightly gravelly Loamy Clayey Deep
Mapping Unit: N/A
Principal Profile Form: Gn4.11

ASC Confidence:
All necessary analytical data are available.
Great Soil Group: Chocolate soil

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 2-10%, medium gravelly, 6-20mm, subrounded tabular, ; 2-10%, coarse gravelly, 20-60mm, subangular tabular,

Profile Morphology

A1	0 - 0.04 m	Dark reddish brown (5YR2.5/2-Moist); ; Loam; Moderate grade of structure, 2-5 mm, Granular; 2-5 mm, Polyhedral; Rough-ped fabric; Moist; Loose consistence; 2-10%, medium gravelly, 6-20mm, subrounded, coarse fragments; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Abrupt, Wavy change to -
B2	0.04 - 0.27 m	Dark reddish brown (5YR3/3-Moist); Biological mixing, 5YR32, 2-10% , Distinct; Silty clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; 2-5 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subrounded, coarse fragments; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Abrupt, Wavy change to -
A1b	0.27 - 0.4 m	Dark reddish brown (5YR2.5/2-Moist); Biological mixing, 5YR32, 10-20% , Faint; Silty clay loam; Moderate grade of structure, 2-5 mm, Polyhedral; <2 mm, Granular; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded, coarse fragments; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Irregular change to -
B21b	0.4 - 0.7 m	Dark reddish brown (5YR3/3-Moist); Biological mixing, 7.5YR32, 2-10% , Faint; Silty clay; Moderate grade of structure, 2-5 mm, Polyhedral; 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 10-20%, medium gravelly, 6-20mm, subrounded, coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Irregular change to -
B22b	0.7 - 1.25 m	Dark reddish brown (5YR3/4-Moist); Biological mixing, 7.5YR32, 2-10% , Faint; Silty clay; 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, subrounded, coarse fragments; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots;

Morphological Notes

A1	Disturbed colluvium probably from wombat mounds upslope. Organic buildup has
B2	Disturbed colluvium from upslope.

Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0102** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

B21b	Buried horizon.
B22b	Buried horizon. Large voids present at base of pit - possibly due to wombat activity.

Observation Notes

Site disturbed by numerous wombats and logging activity. Previous A horizon has been buried by disturbed soil.

Site Notes

COMP2H 1071-1 264D 260M FROM INTERS

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0102 **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 - 0.04	4.49C		11.05H	4.2	1.12	0.11	3.47J 0K		19.96E	
0.04 - 0.27	4.78C		5.08H	3.52	0.61	0.1	0.93J 0K		10.24E	
0.27 - 0.4	4.66C		4.8H	2.87	0.44	0.08	2.4J 0K		10.58E	
0.4 - 0.7	4.85C		5.5H	3.67	0.32	0.13	0.97J 0K		10.59E	
0.7 - 1.25	4.93C		6.71H	4.22	0.33	0.14	0.56J 0K		11.95E	

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 - 0.04		11.5B		1719.1B	0.31A		0.56	45.02				
0.04 - 0.27		2.62B		1909.4B	0.06A		0.66	35.35				
0.27 - 0.4		5.04B		2154.8B	0.13A		0.62	46.1				
0.4 - 0.7		3B		1374.1B	0.08A		0.68	44.67				
0.7 - 1.25		1.55B		1071.8B	0.04A		0.78	28.38				

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 - 0.04									
0.04 - 0.27									
0.27 - 0.4									
0.4 - 0.7									
0.7 - 1.25									

Project Name: **BAGO-MARAGLE FOREST SOIL SURVEY**
Project Code: **BGM_FSS** **Site ID:** **0102** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Laboratory Analyses Completed for this profile

13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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