

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0038 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By:	P. Ryan	Locality:	
Date Desc.:	23/11/95	Elevation:	1266 metres
Map Ref.:	Sheet No. : 8526 DGPS	Rainfall:	No Data
Northing/Long.:	6032320 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	616095 Datum: AGD66	Drainage:	Well drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	Os	Substrate Material:	Sandstone

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	Open depression (vale)	Relief:	No Data
Elem. Type:	Drainage depression	Slope Category:	No Data
Slope:	24 %	Aspect:	135 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit:	N/A
Acidic Dystrophic Red Dermosol Medium Very gravelly Clay-loamy Clayey Deep	Principal Profile Form:	Gn2.14
ASC Confidence:	Great Soil Group:	Red podzolic soil
All necessary analytical data are available.		

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

Vegetation:

Surface Coarse Fragments: 20-50%, medium gravelly, 6-20mm, rounded tabular, Gravel; 20-50%, coarse gravelly, 20-60mm, subrounded, Gravel

Profile Morphology

O1	0 - 0.02 m	Organic Layer; ;
A11	0.02 - 0.17 m	(7.5YR2.5/2-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 50-90%, medium gravelly, 6-20mm, subrounded tabular, reoriented, Gravel, coarse fragments; Field pH 5 (Raupach); Abundant, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Few, medium (2-5mm) roots; Gradual, Irregular change to -
A12	0.17 - 0.29 m	(7.5YR2.5/2-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; 50-90%, medium gravelly, 6-20mm, subrounded tabular, reoriented, Gravel, coarse fragments; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Many, coarse (>5mm) roots; Gradual, Irregular change to -
A2	0.29 - 0.44 m	Dark brown (7.5YR3/2-Moist); Biological mixing, 7.5YR2.51, 10-20% , Faint; Clay loam; Weak grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Moist; Weak consistence; 20-50%, medium gravelly, 6-20mm, subrounded tabular, reoriented, Gravel, 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, Smooth change to -
B1	0.44 - 0.54 m	Dark brown (7.5YR3/4-Moist); Biological mixing, 7.5YR31, 10-20% , Faint; Light clay; Weak grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Moist; Weak consistence; 10-20%, coarse gravelly, 20-60mm, subangular tabular, Gravel, coarse fragments; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Clear, Smooth change to -
B21	0.54 - 0.8 m	Yellowish red (5YR4/6-Moist); Biological mixing, 7.5YR31, 2-10% , Faint; Light medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular tabular, Gravel, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual, Smooth change to -
B22	0.8 - 1.27 m	Yellowish red (5YR4/6-Moist); ; Light medium clay; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subangular tabular, Gravel, coarse fragments; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear change to -

Morphological Notes

A11 High colluvial gravel content.

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A12 As layer 1.

A2 As layer 1.

B1 Abrupt decrease in gravel content. No sign of buried horizon.

Observation Notes

Steep drainage line steepening below. The gravel in the upper soil would indicate a period of landscape instability.

Site Notes

COMP 36H/17H,2633-1,179D,612M FROM 514

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.02										
0.02 - 0.17	4.65C		12.29H	2.28	0.95	0.01	1.89J 0K		17.42E	
0.17 - 0.29	4.59C		3.86H	1.2	0.48	0.01	2.3J 0K		7.85E	
0.29 - 0.44	4.28C		0.41H	0.47	0.31	0.01	2.37J 0K		3.56E	
0.44 - 0.54	4.2C		0.17H	0.41	0.3	0	2.05J 0K		2.93E	
0.54 - 0.8	4.05C		0.24H	0.62	0.36	0	2.73J 0K		3.95E	
0.8 - 1.27	4.02C		0.27H	0.72	0.31	0.01	2.84J 0K		4.16E	

Depth m	CaCO3 %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle		Size FS %	Analysis	
								GV	CS		Silt	Clay
0 - 0.02												
0.02 - 0.17		8.57B		1020.1B	0.36A		1.32	76.38				
0.17 - 0.29		5.24B		913.7B	0.21A		1.24	50.52				
0.29 - 0.44		2.75B		568B	0.1A		1.43	66.13				
0.44 - 0.54		1.74B		438B	0.07A			37.4				
0.54 - 0.8		0.81B		431.9B	0.05A			38.15				
0.8 - 1.27		0.37B		429.6B	0.04A			36.67				

[illegible]

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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