

Project Name: BAGO-MARAGLE FOREST SOIL SURVEY
Project Code: BGM_FSS **Site ID:** 0053 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: N.J. McKenzie	Locality:
Date Desc.: 10/01/96	Elevation: 1074 metres
Map Ref.: Sheet No. : 8526 DGPS	Rainfall: No Data
Northing/Long.: 6026580 AMG zone: 55	Runoff: No Data
Easting/Lat.: 615775 Datum: AGD66	Drainage: Well drained

Geology

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

Land Form

Rel/Slope Class: No Data	Pattern Type: No Data
Morph. Type: Mid-slope	Relief: No Data
Elem. Type: Hillslope	Slope Category: No Data
Slope: 11 %	Aspect: 270 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Acidic Magnesic Red Kandosol Thin Non-gravelly Clay-loamy Clay-loamy Very deep	Principal Profile Form: Um6.

ASC Confidence:	Great Soil Group: N/A
All necessary analytical data are available.	

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 0-2%, cobbly, 60-200mm, subrounded, Adamellite

Profile Morphology

O1	0 - 0.01 m	Organic Layer; ;
A1	0.01 - 0.1 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 5YR43, 20-50% , Distinct; Clay loam; Strong grade of structure, 10-20 mm, Polyhedral; 5-10 mm, Granular; Rough-ped fabric; Moist; Weak consistence; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Clear, Smooth change to -
B1	0.1 - 0.26 m	Reddish brown (5YR4/4-Moist); Biological mixing, 5YR32, 20-50% , Distinct; Clay loam; Moderate grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Moist; Firm consistence; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5 (Raupach); Common, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Clear, Smooth change to -
B21	0.26 - 0.66 m	Red (2.5YR4/6-Moist); ; Clay loam; Weak grade of structure, 20-50 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; 0-2%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5 (Raupach); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Common, coarse (>5mm) roots; Diffuse, Smooth change to -
B22	0.66 - 1.51 m	Red (2.5YR4/6-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B23	1.51 - 2.06 m	Reddish brown (5YR4/4-Moist); ; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach); Diffuse, Smooth change to -
B3	2.06 - 2.76 m	Reddish yellow (7.5YR6/6-Moist); Substrate influence, 10YR64, 20-50% , Distinct; Clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 20-50%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; 20-50%, fine gravelly, 2-6mm, subangular, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 4.5 (Raupach);

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Morphological Notes

A1	Abundant worm activity and cast structure. More dense than previous site.
B1	B1 - relatively clayey and silty. Silt test positive.
B21	Large roots.
B22	Siltyness not evident from here down.
B23	An extended B2 (CF 51/52).
B3	Weathered adamellite, hard rock hit.

Observation Notes

Site Notes

COMP 40H,4963-1,152.5,380M FR RIDGE

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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 - 0.01										
0.01 - 0.1	4.22C		6.5H	1.92	1.18	0.02	5.95J 0K		15.57E	
0.1 - 0.26	4.17C		1.97H	1.44	1.02	0.02	4.34J 0K		8.8E	
0.26 - 0.66	3.91C		0H	0.9	0.74	0.02	5.85J 0K		7.52E	
0.66 - 1.51	3.97C		0H	0.41	0.41	0	3.76J 0K		4.59E	
1.51 - 2.06	3.99C		0H	0.32	0.42	0.02	3.35J 0K		4.1E	
2.06 - 2.76	3.9C		0H	0.29	0.37	0.01	3.9J 0K		4.57E	

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle		Size	Analysis	
								GV	CS		FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.01												
0.01 - 0.1		8.95B		329.9B	0.23A		0.84	34.8				
0.1 - 0.26		2.38B		255.2B	0.09A		1.15	40.58				
0.26 - 0.66		0.66B		191.9B	0.03A		1.06	30.19				
0.66 - 1.51		1.72B		186.1B	0.07A		1.26	32.98				
1.51 - 2.06		0.28B		137.1B	0.02A			25.32				
2.06 - 2.76		0.12B		134.1B	0.02A			27.49				

[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