Project Name: **BAGO-MARAGLE ESM**
Project Code: **BGM_ESM** **Site ID:** **1017** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (ACT)**

Site Information

Desc. By: P. Ryan
Date Desc.: 27/01/95
Map Ref.: Sheet No. : 8526 DGPS
Northing/Long.: 6053619 AMG zone: 55
Easting/Lat.: 601568 Datum: AGD66
Locality:
Elevation: 1218 metres
Rainfall: No Data
Runoff: Slow
Drainage: Well drained

Geology

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

Land Form

Rel/Slope Class: No Data
Morph. Type: Upper-slope
Elem. Type: Hillslope
Slope: 11 %
Pattern Type: No Data
Relief: No Data
Slope Category: No Data
Aspect: 180 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Acidic Dystrophic Red Kandosol Medium Non-gravelly Loamy Clay-loamy Deep
Mapping Unit: N/A
Principal Profile Form: Gn2.11
ASC Confidence:
All necessary analytical data are available.
Great Soil Group: Red earth

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.15 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 10-20% , Faint; Loam; Strong grade of structure, 2-5 mm, Polyhedral; 100-200 mm, Prismatic; Rough-ped fabric; Moderately moist; Weak consistence; Slightly plastic; Slightly sticky; Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Wavy change to -
B21	0.15 - 0.48 m	Dark reddish brown (5YR3/4-Moist); Biological mixing, 2-10% , Faint; Clay loam; Weak grade of structure, 5-10 mm, Polyhedral; Rough-ped fabric; Moist; Weak consistence; Slightly plastic; Slightly sticky; 2-10%, cobbly, 60-200mm, rounded tabular, dispersed, Granodiorite, coarse fragments; Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Gradual, Irregular change to -
B22	0.48 - 0.82 m	Yellowish red (5YR4/6-Moist); Biological mixing, 0-2% , Faint; Clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; Slightly plastic; Slightly sticky; 20-50%, cobbly, 60-200mm, rounded tabular, undisturbed, Granodiorite, coarse fragments; Common, very fine (0-1mm) roots; Gradual, Irregular change to -
B3	0.82 - 1.1 m	Yellowish red (5YR4/6-Moist); Substrate influence, 2-10% , Faint; Coarse sandy clay loam; Massive grade of structure; Earthy fabric; Moist; Very weak consistence; Slightly plastic; Moderately sticky; 50-90%, stony, 200-600mm, rounded tabular, undisturbed, Granodiorite, coarse fragments; Few, very fine (0-1mm) roots; Clear change to -
C	1.1 - 1.5 m	Light yellowish brown (10YR6/4-Moist); ; Clayey coarse sand; Massive grade of structure; Sandy (grains prominent) fabric; Moderately moist; Non-plastic; Moderately sticky; 10-20%, medium gravelly, 6-20mm, subrounded tabular, undisturbed, Granodiorite, coarse fragments;

Morphological Notes

B22 Large granite boulders first encountered in this layer and extend into layer 4.

Observation Notes

Pit is metres last of PGP centre peg. Plot is mixture of alpine ash and small mountain gum.

Site Notes

PGP7, BAGO S.F., COMPT. 40

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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 - 0.08	3.71C		0.75H	0.66	0.73	0.09	7.32J		9.55E	
	4.65A						0K			
0.3 - 0.38	3.87C		0.07H	0.56	0.49	0.07	3.27J		4.46E	
	4.85A						0K			
0.6 - 0.7	3.84C		0.06H	0.45	0.4	0.05	2.66J		3.63E	
	5.01A						0K			
0.9 - 1	3.9C		0.05H	0.27	0.38	0.06	1.64J		2.4E	
	5.11A						0K			
1.2 - 1.4	4.05C		0.06H	0.21	0.4	0.07	0.72J		1.45E	
	5.23A						0K			

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 - 0.08		5.57B		383.6B	0.22A		0.88	2.61				
0.3 - 0.38		0.98B		276.3B	0.05A		1.29	2.69				
0.6 - 0.7		0.31B		226B	0.03A		1.48	7.59				
0.9 - 1		0.18B		240.8B	0.02A		1.40	10.53				
1.2 - 1.4		0.06B		299.6B	0.01A			8.1				

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 - 0.08									
0.3 - 0.38									
0.6 - 0.7									
0.9 - 1									
1.2 - 1.4									

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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
4A1	pH of 1:5 soil/water suspension
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