Project Name: BAGO-MARAGLE ESM

Project Code: BGM_ESM Site ID: 1027 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: P. Ryan Locality:

 Date Desc.:
 06/04/95
 Elevation:
 1236 metres

 Map Ref.:
 Sheet No.: 8526
 DGPS
 Rainfall:
 No Data

 Northing/Long.:
 6046488 AMG zone: 55
 Runoff:
 Slow

Easting/Lat.: 601207 Datum: AGD66 Drainage: Rapidly drained

Geology

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

Land Form

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:Upper-slopeRelief:No DataElem. Type:HillslopeSlope Category:No DataSlope:21 %Aspect:135 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:Mapping Unit:N/AAcidic Dystrophic Red Kandosol Medium Slightly gravellyPrincipal Profile Form:Gn2.11

Clay-loamy Clayey Very deep

ASC Confidence: Great Soil Group: Red earth

All necessary analytical data are available.

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments: 2-10%, cobbly, 60-200mm, subangular, Granodiorite

Profile Morphology

O1 0 - 0.03 m Organic Layer; ;

A1 0.03 - 0.17 m Dark brown (7.5YR3/2-Moist); ; Fine sandy clay loam; Moderate grade of structure, 5-10 mm,

Polyhedral; 100-200 mm, Lenticular; Rough-ped fabric; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subrounded, dispersed, Granodiorite, coarse fragments; Field pH 5.5 (pH meter); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-

5mm) roots; Common, coarse (>5mm) roots; Abrupt, Wavy change to -

AB 0.17 - 0.28 m Dark reddish brown (5YR3/2-Moist); Biological mixing, 5YR44, 10-20%, Distinct; Medium sandy

clay; Moderate grade of structure, 2-5 mm, Polyhedral; 100-200 mm, Prismatic; Rough-ped fabric; Moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subrounded, dispersed, Granodiorite, coarse fragments; Field pH 5.5 (pH meter); Common, very fine (0-1mm) roots;

Clear, Irregular change to -

B1 0.28 - 0.39 m Yellowish red (5YR4/6-Moist); Yellowish red (5YR5/6-Dry); Biological mixing, 2-10%, Distinct;

Medium sandy clay; Weak grade of structure, 5-10 mm, Subangular blocky, Smooth-ped fabric; Moderately moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subrounded, dispersed, Granodiorite, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium

(2-5mm) roots; Few, coarse (>5mm) roots; Gradual, Broken change to

B2 0.39 - 1.13 m Red (2.5YR4/6-Moist); Substrate influence, 2-10%, Faint; Coarse sandy clay loam; Massive

grade of structure; Sandy (grains prominent) fabric; Dry; Weak consistence; 10-20%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, Granodiorite, coarse fragments; Field pH 5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots;

Few, coarse (>5mm) roots; Clear change to -

BC 1.13 - 1.53 m Brown (7.5YR4/4-Moist); Substrate influence, 2-10%, Faint; Clayey coarse sand; Field pH 6 (pH

meter); Clear change to -

C 1.53 - 1.78 m Dark yellowish brown (10YR4/4-Moist); ; Clayey coarse sand; Field pH 6 (pH meter);

Morphological Notes

B1 This pale horizon is discontinuous.

B2 Colour hue varies within layer indicating variable weathering.

Observation Notes

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Site Notes

PGP15, BAGO S.F. COMPT 81

Gravel includes F.G., foliated granodiorite.

1027 Observation ID: 1

Project Name: BAGO-MARAGLE ESM
Project Code: BGM_ESM Site ID: 102
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Laboratory Test Results:

Laboratory Test Nesults.										
Depth	рН	1:5 EC		hangeable			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca I	Mg	K	Na Cmol (+	Acidity /kg			%
0.03 - 0.11	4.29C 5.05A		1.03H	0.6	0.69	0.06	3.39J 0K		5.77E	
0.15 - 0.27	4.21C 5A		0.26H	0.21	0.28	0.02	2.21J 0K		2.98E	
0.33 - 0.41	4.06C 4.83A		0.03H	0.09	0.17	0.01	1.81J 0K		2.11E	
0.53 - 0.83	4.18C 5.2A		0.04H	0.34	0.09	0	0.99J 0K		1.46E	
1.23 - 1.43	4.36C 5.4A		0.01H	0.15	0.12	0	0.3J 0K		0.59E	
1.58 - 1.78	4.4C 5.36A		0.01H	0.11	0.14	0	0.3J 0K		0.56E	
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Tota K	I Bulk Density		ticle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	
0.03 - 0.11		4.06B		367.5E	3 0.1	6A	0.95	14.63		
0.15 - 0.27		1.64B		287.4E			1.24	21.09		
0.33 - 0.41		0.57B		309B	0.0	-	4.54	13.85		
0.53 - 0.83		0.2B		293.1E			1.54	26.29		
1.23 - 1.43		0.06B		197.4E				5.59		
1.58 - 1.78		0.05B		291.4E	5 U	A		6.66		
Depth	COLE					Water Con			K sat	K unsat
m		Sat.	0.05 Bar	0.1 Bar g/	0.5 Bar /g - m3/m	1 Bar 13	5 Bar 15	Bar	mm/h	mm/h

^{0.03 - 0.11} 0.15 - 0.27

^{0.33 - 0.41} 0.53 - 0.83 1.23 - 1.43 1.58 - 1.78

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Laboratory Analyses Completed for this profile

15_NR Sum of Ex. cations + Ex. acidity - Not recorded

15E1_AL 15E1_CA Exchangeable AI - by compulsive exchange, no pretreatment for soluble salts

Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble

Exchangeable H - by compulsive exchange, no pretreatment for soluble salts 15E1_H

Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts 15E1_K 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

Air-dry moisture content 2A1 pH of 1:5 soil/water suspension 4A1

pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1 4B2

6B2 Total organic carbon - high frequency induction furnace, volumetric

7A2 Total nitrogen - semimicro Kjeldahl , automated colour

Total Phosphorus (ppm) - semimicro kjeldahl, automated colour 9A3

P10_GRAV Gravel (%)

Bulk density - g/cm3 P3A1