

**Project Name:** BAGO-MARAGLE ESM  
**Project Code:** BGM\_ESM      **Site ID:** 1025      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

**Site Information**

<b>Desc. By:</b>	P. Ryan	<b>Locality:</b>	
<b>Date Desc.:</b>	05/04/95	<b>Elevation:</b>	1193 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6043735 AMG zone: 55	<b>Runoff:</b>	Slow
<b>Easting/Lat.:</b>	611736 Datum: AGD66	<b>Drainage:</b>	Well drained

**Geology**

<b>ExposureType:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	Probable
<b>Geol. Ref.:</b>	SGGH	<b>Substrate Material:</b>	No Data

**Land Form**

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	17 %	<b>Aspect:</b>	90 degrees

**Surface Soil Condition (dry):** Firm

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Acidic Dystrophic Red Kandosol Medium Non-gravelly Clayey Clayey Very deep		<b>Principal Profile Form:</b>	Gn2.11

<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Red earth
All necessary analytical data are available.			

**Site Disturbance:** No effective disturbance. Natural

**Vegetation:**

**Surface Coarse Fragments:** 0-2%, cobbly, 60-200mm, subangular tabular,

**Profile Morphology**

O1	0 - 0.03 m	Organic Layer; ;
A1	0.03 - 0.15 m	Dark reddish brown (5YR3/2-Moist); Biological mixing, 10-20% , Faint; Biological mixing, 10-20% , Faint; Light clay; Strong grade of structure, 2-5 mm, Polyhedral; 100-200 mm, Prismatic; Rough-ped fabric; Moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, dispersed, coarse fragments; Field pH 6 (pH meter); Common, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Smooth change to -
B1	0.15 - 0.28 m	Dark reddish brown (5YR3/4-Moist); Biological mixing, 2-10% , Distinct; Fine sandy light clay; Moderate grade of structure, 5-10 mm, Polyhedral; 50-100 mm, Columnar; Smooth-ped fabric; Moderately moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Few, coarse (>5mm) roots; Clear, Irregular change to -
B21	0.28 - 0.53 m	Yellowish red (5YR4/6-Moist); Biological mixing, 0-2% , Distinct; Clay loam, sandy; Weak grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Moderately moist; Firm consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5.5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
B22	0.53 - 0.78 m	Yellowish red (5YR4/6-Moist); Biological mixing, 0-2% , Faint; Clay loam, sandy; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, dispersed, coarse fragments; 0-2%, medium gravelly, 6-20mm, angular tabular, dispersed, Coal, coarse fragments; Field pH 5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Gradual, Irregular change to -
B23	0.78 - 1.28 m	Yellowish red (5YR4/6-Moist); Substrate influence, 2-10% , Faint; Fine sandy clay loam; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subangular tabular, dispersed, coarse fragments; 0-2%, medium gravelly, 6-20mm, angular tabular, dispersed, Coal, coarse fragments; 2-10%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, coarse fragments; Field pH 5 (pH meter); Few, very fine (0-1mm) roots; Diffuse change to -

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B3      1.28 - 1.98 m      Strong brown (7.5YR4/6-Moist); ; Fine sandy clay loam; Earthy fabric; 2-10%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, coarse fragments; Field pH 5 (pH meter);

**Morphological Notes**

B23      Increase in coarse fragments of feldspar 10 to 20%, 6 - 20 mm. Mafic substrate increases in abundance in this layer and below.

**Observation Notes**

PGP centre peg 6 m south west. Wet ash site.

**Site Notes**

PGP18, BAGO S.F., COMPT 94

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[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
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