

**Project Name:** BAGO-MARAGLE ESM  
**Project Code:** BGM\_ESM **Site ID:** 1023 **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>	1347 metres
<b>Map Ref.:</b>	Sheet No. : 8526 DGPS	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6046175 AMG zone: 55	<b>Runoff:</b>	Moderately rapid
<b>Easting/Lat.:</b>	609114 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>	Lower-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	26 %	<b>Aspect:</b>	45 degrees

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

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Acidic Mesotrophic Brown Kandosol Medium Non-gravelly Loamy Clayey Very deep	<b>Principal Profile Form:</b>	Gn2.41
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	Brown earth
All necessary analytical data are available.		

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

**Vegetation:**

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

**Profile Morphology**

O1	0 - 0.03 m	Organic Layer; ;
A1	0.03 - 0.18 m	Dark brown (7.5YR3/2-Moist); Biological mixing, 2-10% , Faint; Loam; Strong grade of structure, 5-10 mm, Polyhedral; 100-200 mm, Lenticular; Rough-ped fabric; Moderately moist; Weak consistence; Field pH 6 (pH meter); Abundant, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Wavy change to -
B1	0.18 - 0.29 m	Dark brown (7.5YR3/3-Moist); Biological mixing, 2-10% , Faint; Medium sandy clay loam; Moderate grade of structure, 5-10 mm, Polyhedral; 100-200 mm, Lenticular; Rough-ped fabric; Dry; Weak consistence; Field pH 6 (pH meter); Abundant, very fine (0-1mm) roots; Many, fine (1-2mm) roots; Common, medium (2-5mm) roots; Common, coarse (>5mm) roots; Clear, Irregular change to -
B21	0.29 - 0.78 m	Dark brown (7.5YR3/4-Moist); Biological mixing, 0-2% , Faint; Fine sandy light clay; Massive grade of structure; Earthy fabric; Dry; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, coarse fragments; 2-10%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, coarse fragments; Field pH 5.5 (pH meter); Many, very fine (0-1mm) roots; Common, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -
B22	0.78 - 1.13 m	Yellowish red (5YR4/6-Moist); ; Fine sandy light clay; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 2-10%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, coarse fragments; 2-10%, coarse gravelly, 20-60mm, subrounded tabular, dispersed, 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; Gradual change to -
B3	1.13 - 1.58 m	Strong brown (7.5YR5/6-Moist); ; Clay loam, sandy; Earthy fabric; Moderately moist; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Soft segregations, strong, segregations;Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Fragments, strong, segregations;Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Veins, strong, segregations;Field pH 4.5 (pH meter); Gradual change to -

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BC      1.58 - 1.93 m      Strong brown (7.5YR5/6-Moist); Substrate influence, 2-10% , Faint; Coarse sandy clay loam; Earthy fabric; Moderately moist; Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Soft segregations, strong, segregations;Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Fragments, strong, segregations;Common (10 - 20 %), Manganiferous, Medium (2 -6 mm), Veins, strong, segregations;Field pH 4.5 (pH meter);

**Morphological Notes**

B21      Course fragments mafic material and granodiorite.  
BC      Increase in MN segregations due to mafic substrate.

**Observation Notes**

PGP centre peg 10 m south east. Plot is just above creek line which has large ash, upslope ash replaced by snow gum mountain gum, substrate granodiorite      seems to have intrusions of mafic mat.

**Site Notes**

PGP16, BAGO S.F., COMPT 62

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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