Project Name: YAMBULLA RESEARCH CATCHMENTS
Project Code: 1000196 **Site ID:** YAM_RC7 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: P. Ryan
Date Desc.: 06/05/86
Map Ref.: Sheet No. : 8823 1:25000
Northing/Long.: 5866050 AMG zone: 55
Easting/Lat.: 733100 Datum: AGD66
Locality:
Elevation: No Data
Rainfall: No Data
Runoff: No Data
Drainage: Imperfectly drained

Geology

ExposureType: Soil pit
Geol. Ref.: DGL
Conf. Sub. is Parent. Mat.: Probable
Substrate Material: Adamellite

Land Form

Rel/Slope Class: No Data
Morph. Type: No Data
Elem. Type: Hillslope
Slope: 8 %
Pattern Type: No Data
Relief: 0 metres
Slope Category: No Data
Aspect: 135 degrees

Surface Soil Condition (dry): Firm

Erosion: No sheet erosion (sheet) No rill erosion (rill) No gully erosion (gully)

Soil Classification

Australian Soil Classification:
N/A
ASC Confidence:
Confidence level not specified
Mapping Unit: N/A
Principal Profile Form: Gn2.74
Great Soil Group: Yellow podzolic soil

Site Disturbance:

Vegetation:

Surface Coarse Fragments: 10-20%, fine gravelly, 2-6mm, subangular, Quartz

Profile Morphology

O1	0 - 0.02 m	Organic Layer; ; Coarse sandy clay loam; Dry; Slightly plastic; Slightly sticky; Clear, Tongued change to -
A1	0.02 - 0.14 m	Black (10YR2/1-Moist); ; Coarse sandy clay loam; Weak grade of structure, 2-5 mm, Granular; Earthy fabric; Dry; Very weak consistence; Slightly plastic; Slightly sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 4 (Raupach); Clear, Wavy change to -
A2	0.14 - 0.3 m	Light grey (2.5Y7/1-Dry); ; Coarse sandy clay loam; Massive grade of structure; Sandy (grains prominent) fabric; Dry; Strong consistence; Slightly plastic; Moderately sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Field pH 4.5 (Raupach); Clear, Irregular change to -
B1	0.3 - 0.42 m	; Coarse sandy clay; Massive grade of structure; Earthy fabric; Moderately moist; Strong consistence; Moderately plastic; Moderately sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, Quartz, coarse fragments; Few (2 - 10 %), Organic (humified), , Soft segregations; Few (2 - 10 %), Organic (humified), , Veins; Field pH 6 (Raupach); Gradual, Wavy change to -
B21	0.42 - 0.67 m	Mottles, 10-20% , Distinct; Coarse sandy clay; Weak grade of structure, 2-5 mm, Angular blocky; 20-50 mm, Angular blocky; Smooth-ped fabric; Moderately moist; Very firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, undisturbed, Quartz, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (Raupach);
B22	0.67 - 0.82 m	Mottles, 10-20% , Distinct; Weak grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Very firm consistence; 10-20%, fine gravelly, 2-6mm, subangular, undisturbed, Quartz, coarse fragments; 10-20%, fine gravelly, 2-6mm, subangular, undisturbed, Adamellite, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, faint; Field pH 5 (Raupach);

Morphological Notes

Observation Notes

Higher OM in A1 hor - similar to YA05. Illuviated humic material in upper B1. Possible colluvial origin to upper 30cm.

Site Notes

Catch.3 310/306

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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							%
0.02 - 0.1	3.6I 4.38H		1.41F	1.56	0.33	0.58	1.91G			
0.14 - 0.3	3.9I 4.54H		0.15F	0.27	0.13	0.19	0.94G			
0.32 - 0.4	4.35I 4.77H		0.09F	0.14	0.14	0.38	0.51G			
0.42 - 0.67	4I 4.43H		0.11F	1.24	0.25	0.63	2.38G			
0.67 - 0.82	3.87I 4.48H		0.13F	2.25	0.35	1.02	3.06G			

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			%		
0.02 - 0.1		7.39A		78F	0.18E			3.5				
0.14 - 0.3		1.36A		24F	0.04E			12.9				
0.32 - 0.4		0.5A		55F	0.02E			19.8				
0.42 - 0.67		0.75A		33F	0.02E			27.5				
0.67 - 0.82		0.39A		25F	0.02E			30.2				

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
0.02 - 0.1									
0.14 - 0.3									
0.32 - 0.4									
0.42 - 0.67									
0.67 - 0.82									

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Laboratory Analyses Completed for this profile

15D1_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_K	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_MG	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15D1_NA	Exchangeable bases and CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
15G_C_AL2	Exchangeable aluminium - meq per 100g of soil - Aluminium By KCl extraction and detremination By AAS
2A1	Air-dry moisture content
4A_C_1	pH of soil - pH of 1:1 soil/water suspension
4C_C_1	pH of 1:1 soil/1M potassium chloride suspension
6A1	Organic carbon - Walkley and Black
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A_NR	Total element - P(%) - Not recorded
P10_GRAV	Gravel (%)