Project Name: YAMBULLA RESEARCH CATCHMENTS

Project Code: 1000196 Site ID: YAM_RC9 Observation ID: 1

Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: P. Ryan Locality:

Date Desc.: 07/05/86 Elevation: No Data Map Ref.: Sheet No.: 8823 1:25000 Rainfall: No Data Northing/Long.: 5865750 AMG zone: 55 Runoff: No Data 732950 Datum: AGD66 Well drained Easting/Lat.: Drainage:

Geology

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

Land Form

Rel/Slope Class:No DataPattern Type:No DataMorph. Type:Lower-slopeRelief:0 metresElem. Type:BenchSlope Category:No DataSlope:0 %Aspect:No Data

Surface Soil Condition (dry): Soft

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

gully erosion (gully)

Soil Classification

Australian Soil Classification:Mapping Unit:N/AN/APrincipal Profile Form:Gn4.81

ASC Confidence: Great Soil Group: Brown podzolic soil

Confidence level not specified

Site Disturbance: Vegetation:

Surface Coarse Fragments: 2-10%, , subangular, Adamellite; 2-10%, , subangular, Quartz

Profile Morphology

A1 0 - 0.07 m Very dark greyish brown (10YR3/2-Moist); ; Loamy sand (Sapric); Single grain grade of structure;

Dry; Loose consistence; Non-plastic; Slightly sticky; 10-20%, subangular, dispersed,

Adamellite, coarse fragments; 10-20%, subangular, dispersed, Quartz, coarse fragments; 10-20%, subangular, dispersed, Coal, coarse fragments; Field pH 5 (Raupach); Clear, Smooth

change to -

A3 0.07 - 0.4 m Dark greyish brown (10YR4/2-Moist); ; Coarse sandy clay loam; Moderate grade of structure, 2-5

mm, Polyhedral; 5-10 mm; Rough-ped fabric; Dry; Firm consistence; Moderately plastic; Moderately sticky; 2-10%, subangular, dispersed, Adamellite, coarse fragments; 2-10%, subangular, dispersed, Quartz, coarse fragments; 2-10%, subangular, dispersed, Coal, coarse

fragments; Field pH 6 (Raupach); Abrupt, Irregular change to -

B2 0.4 - 0.66 m Yellowish brown (10YR5/6-Moist); ; Coarse sandy clay; Moderate grade of structure, 20-50 mm,

Angular blocky; Rough-ped fabric; Moderately moist; Very firm consistence; 2-10%, subangular, dispersed, Adamellite, coarse fragments; 2-10%, subangular, dispersed, Quartz, coarse fragments; 2-10%, subangular, dispersed, Coal, coarse fragments; Few cutans, <10% of ped

faces or walls coated, faint; Field pH 5.5 (Raupach); Clear, Wavy change to -

 $BC \qquad 0.66 \text{ - } 0.7 \text{ m} \qquad \text{; Moderately moist; Very firm consistence; 10-20\%, subangular, undisturbed, Adamellite, coarse}$

fragments; 10-20%, subangular, undisturbed, Quartz, coarse fragments; 10-20%, subangular,

dispersed, Coal, coarse fragments;

Morphological Notes

A3 Peds polyhedral, ant casting, variegate.

B2 Peds have clay skins and other cutans (<10% and faint)

Observation Notes

Western edge of catchment. Rock outcropsprobably PM effect rather than pediment.Prominant mixing of A & B hors. Earthworm casting common.

Site Notes

catch.3/307-304

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Laboratory Test Results:

Depth	рН	1:5 EC		hangeable	Cations K	Na	Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	N.	Cmol (Acidity +)/kg			%
0 - 0.07	3.61I 4.35H		2.4F	1.6	0.64	0.7	2.97G			
0.07 - 0.4	4.2I 4.99H		0.56F	0.86	0.33	0.14	1.41G			
0.3 - 0.38	4.24l 4.66H		0.47F	0.72	0.5	0.75	1.19G			
0.4 - 0.66	4.19l 5.1H		0.56F	1.91	0.42	0.14	1.03G			
Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Tota K	al Bulk Density	Pa GV	rticle Size	Analysis Silt Clay
m	%	%	mg/kg	%	%	%	Mg/m3		%	•
0 - 0.07 0.07 - 0.4 0.3 - 0.38 0.4 - 0.66		6.63A 3.64A 0.58A 0.79A		50F 46F 57F 28F	0.1 0.0 0.0 0.0	8E 9E		20.6 14.7 22.5 32		
Depth	COLE		Gravimetric/Volumetric Water Contents						K sat	K unsat
m		Sat.	0.05 Bar	0.1 Bar g/	0.5 Bar g - m3/m	1 Bar 3	5 Bar 15	Bar	mm/h	mm/h
0 - 0.07										

0.07 - 0.4 0.3 - 0.38 0.4 - 0.66

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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 (%)