

Project Name: PRO
Project Code: PRO **Site ID:** H126 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (TAS)

Site Information

Desc. By:	K.D. Nicholls	Locality:	1.2KM east of Sorell/Orielton Road 4.8KM north of Sorell:
Date Desc.:	18/11/55	Elevation:	61 metres
Map Ref.:		Rainfall:	610
Northing/Long.:	147.541666666667	Runoff:	Rapid
Easting/Lat.:	-42.7444444444445	Drainage:	Poorly drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	Auger boring, 1.1 m deep,Dolerite

Land Form

Rel/Slope Class:	Rolling hills 90-300m 10-32%	Pattern Type:	Hills
Morph. Type:	No Data	Relief:	No Data
Elem. Type:	Hillslope	Slope Category:	Moderately inclined
Slope:	23 %	Aspect:	90 degrees

Surface Soil Condition (dry):

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Melanic-Vertic Eutrophic Black Dermosol		Principal Profile Form:	Gn3.43
ASC Confidence:		Great Soil Group:	Prairie soil
All necessary analytical data are available.			

Site Disturbance: Limited clearing, for example selective logging

Vegetation: Low Strata - Tussock grass, 0.51-1m, Mid-dense. *Species includes - None recorded
Tall Strata - Tree, , . *Species includes - Eucalyptus ovata

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A1	0 - 0.1 m	Very dark grey (10YR3/1-Moist); ; Clay loam, fine sandy; Moderate grade of structure, <2 mm, Granular; Moderately moist; Weak consistence; 2-10%, cobbly, 60-200mm, Dolerite, coarse fragments; ManyDiffuse change to -
AB	0.1 - 0.18 m	Very dark brown (10YR2/2-Moist); ; Clay loam (Heavy); Moderate grade of structure, 2-5 mm, Subangular blocky; Moist; Firm consistence; 0-2%, Gravel, coarse fragments; CommonClear change to -
B	0.18 - 0.33 m	Very dark brown (10YR2/2-Moist); ; Light clay; Weak grade of structure, 50-100 mm, Prismatic; Moist; Very firm consistence; 0-2%, Gravel, coarse fragments; CommonDiffuse change to -
B	0.33 - 0.48 m	Very dark brown (10YR2/2-Moist); ; Medium clay; Weak grade of structure, 50-100 mm, Prismatic; Moist; Very firm consistence; Slightly plastic; Normal plasticity; 0-2%, Gravel, coarse fragments; CommonDiffuse change to -
	0.48 - 0.64 m	Very dark brown (10YR2/2-Moist); ; Medium clay; Weak grade of structure, 50-100 mm, Angular blocky; Very firm consistence; Slightly plastic; Normal plasticity; 0-2%, Gravel, coarse fragments; CommonSharp change to -
BC	0.79 - 0.89 m	Very dark brown (10YR2/2-Moist); ; Heavy clay; 10-20%, Gravel, coarse fragments; Diffuse change to -
C	0.89 - 1.09 m	Dark yellowish brown (10YR4/4-Moist); ; Loam; 10-20%, Gravel, coarse fragments;
	1.09 - 1.19 m	;

Morphological Notes

On parent material (probably dolerite boulder):

Observation Notes

79-109CM CLAY AND DECOMPOSED DOLERITE:

Site Notes

PEMBROKE

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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na	Acidity		%
						Cmol (+)/kg			
0 - 0.1	6.2A		16.9H	11.7	0.42	0.96	8.5H 14.6E		44.6B
0.1 - 0.18	6.5A								
0.18 - 0.33	7A		15.6H	12.1	0.49	2	4.6E		34.8B
0.33 - 0.48	8.5A								
0.48 - 0.64	8.2A		17.8H	16.4	0.23	2.6			37B
0.79 - 0.89	7.9A		22.2H	17	0.13	4.9	1.6E		45.8B
0.89 - 1.09	7.1A		17.4H	13.5	0.11	5.9	2.9E		39.8B

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
m	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS	Silt Clay
0 - 0.1		5.4D		0.021D	0.447A			2	13B	37	20 20
0.1 - 0.18		2.7D		0.014D	0.243A			2	17B	36	17 23
0.18 - 0.33		1.45D		0.006D	0.104A			1	10D	33	15 38
0.33 - 0.48		1.01D			0.08A			1	9D	33	15 42
0.48 - 0.64	0.002A				0.066A			1	9D	29	12 48
0.79 - 0.89	0.002A							19	16B	18	15 52
0.89 - 1.09	0.004A							16	33B	22	15 30

[illegible]

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Laboratory Analyses Completed for this profile

15E1_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) by compulsive exchange, no pretreatment for soluble
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
15G_C_H1	Exchangeable hydrogen - meq per 100g of soil - Hydrogen By back titration of A or B
15G1_H	Hydrogen Cation - meq per 100g of soil - 1M KCl Exch. Acidity By titration to pH 8.0
15J_H	Sum of Ex. cations + Ex. acidity - Sum of basic exch. cations and exch. (Hydrogen)
19A1	Carbonates - rapid titration
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A_HCL	Total element - P(%) - By boiling HCl
P10_GRAV	Gravel (%)
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance
P10A1_C	Clay (%) - Pipette
P10A1_CS	Coarse sand (%) - Pipette
P10A1_FS	Fine sand (%) - Pipette
P10A1_Z	Silt (%) - Pipette
XRD_C_Fd	Feldspar - X-Ray Diffraction
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction
XRD_C_St	Smectite - X-Ray Diffraction
XRD_C_Tc	Talc - Tourmaline - X-Ray Diffraction