

Project Name: CAN
Project Code: CAN **Site ID:** C120 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (NSW)

Site Information

Desc. By:	H.M. Churchwood	Locality:	Townsend County Parish Morago portion 60 swamp
Date Desc.:	25/04/55	Elevation:	120 metres
Map Ref.:	Sheet No. : 7827 1:100000	Rainfall:	410
Northing/Long.:	144.766666666667	Runoff:	Slow
Easting/Lat.:	-35.416666666667	Drainage:	Moderately well drained

Geology

Exposure Type:	No Data	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	Porous, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class:	Level plain <9m <1%	Pattern Type:	Flood plain
Morph. Type:	Closed Depression	Relief:	No Data
Elem. Type:	Swamp	Slope Category:	Level
Slope:	<1 %	Aspect:	125 degrees

Surface Soil Condition (dry): Hardsetting

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Epicalcareous-Endohypersodic Epipedal Grey Vertosol		Principal Profile Form:	N/A
ASC Confidence:		Great Soil Group:	Grey clay
All necessary analytical data are available.			

Site Disturbance: No effective disturbance. Natural

Vegetation:

Surface Coarse Fragments:

Profile Morphology

0 - 0.08 m	Olive grey (5Y5/2-Moist); ; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Weak consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Concretions; Field pH 8.3 (pH meter);
0.08 - 0.15 m	Olive grey (5Y5/2-Moist); ; Medium heavy clay; 20-50 mm, Angular blocky; Strong grade of structure, 200-500 mm, Prismatic; Strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; Common (10 - 20 %), Calcareous, Medium (2 -6 mm), Concretions; Field pH 9 (pH meter); Gradual change to -
0.15 - 0.28 m	Olive grey (5Y5/2-Moist); ; Medium heavy clay; Strong grade of structure, 200-500 mm, Prismatic; Strong consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Ironstone, coarse fragments; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Nodules; Common (10 - 20 %), Calcareous, Medium (2 -6 mm), Concretions; Field pH 9.1 (pH meter);
0.28 - 0.46 m	Olive grey (5Y5/2-Moist); ; Medium heavy clay; Weak grade of structure, 50-100 mm; Firm consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Ironstone, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Nodules; Common (10 - 20 %), Calcareous, Medium (2 -6 mm), Concretions; Field pH 9.3 (pH meter);
0.46 - 0.69 m	Greyish brown (2.5Y5/3-Moist); ; Medium heavy clay; Weak grade of structure, 50-100 mm, Platy; Very firm consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Ironstone, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Nodules; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Concretions; Field pH 8.7 (pH meter);
0.76 - 0.89 m	Greyish brown (2.5Y5/3-Moist); ; Medium heavy clay; Weak grade of structure, 50-100 mm, Platy; Very firm consistence; Very few (0 - 2 %), Calcareous, , Concretions; Field pH 8.5 (pH meter);
1.02 - 1.17 m	Greyish brown (2.5Y5/3-Moist); ; Medium heavy clay; Weak grade of structure, 50-100 mm, Platy; Firm consistence; Very few (0 - 2 %), Calcareous, , Concretions; Field pH 8.1 (pH meter); Gradual change to -
1.4 - 1.52 m	; Medium heavy clay; , Platy; Firm consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Ironstone, coarse fragments; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Nodules; Very few (0 - 2 %), Calcareous, , Concretions; Field pH 7.9 (pH meter);

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1.68 - 1.83 m ; Medium heavy clay; Firm consistence; 0-2%, fine gravelly, 2-6mm, subrounded, dispersed, Ironstone, coarse fragments; Common cutans, 10-50% of ped faces or walls coated, distinct; Very few (0 - 2 %), Calcareous, , Concretions; Field pH 8.1 (pH meter);

Morphological Notes

Observation Notes

PLEISTOCENE RIVERINE AND AEOLIAN DEPOSITS WUNNAMURRA CLAY

Site Notes

DENIMEIN

Observation ID: 1

Laboratory Test Results:

Depth	pH	1:5 EC	Ca	Exchangeable Mg	Cations K	Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol	(+)/kg			%
0 - 0.08	8.3A	0.176A								
0.08 - 0.15	9A	0.19A								
0.15 - 0.28	9.1A	0.315A								
0.28 - 0.46	9A	0.518A								
0.46 - 0.69	8.7A	1.08A								
0.76 - 0.89	8.5A	1.43A								
1.02 - 1.17	8.2A	1.55A								
1.4 - 1.52	7.9A	1.49A								
1.68 - 1.83	8.1A	1.51A								

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
m	%	C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
		%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.08		1.22D		0.05D	0.125B				12D	19	17	52
0.08 - 0.15		0.42D		0.042D	0.058B				8D	16	14	62
0.15 - 0.28									8D	16	14	62
0.28 - 0.46									9D	16	12	63
0.46 - 0.69									8D	16	18	58
0.76 - 0.89									6D	16	19	59
1.02 - 1.17									6D	18	18	58
1.4 - 1.52									7D	19	17	57
1.68 - 1.83									7D	20	16	59

[illegible]

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Laboratory Analyses Completed for this profile

2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
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
7_NR	Total nitrogen (%) - Not recorded
9A_HCL	Total element - P(%) - By boiling HCl
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