Project Name: **Warren Reservoir Catchment Survey**
Project Code: **WRN** **Site ID:** **064** **Observation ID:** **1**
Agency Name: **CSIRO Division of Soils (SA)**

Site Information

Desc. By: I. Hollingsworth
Date Desc.: 11/12/90
Map Ref.: 1:10000
Northing/Long.: 6155000 AMG zone: 54
Easting/Lat.: 314950 Datum: AGD66
Locality:
Elevation: 423 metres
Rainfall: No Data
Runoff: Moderately rapid
Drainage: Imperfectly drained

Geology

ExposureType: Undisturbed soil core
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Undisturbed soil core, 1.4 m deep,Porous, Schist

Land Form

Rel/Slope Class: Undulating rises 9-30m 3-10%
Morph. Type: Crest
Elem. Type: Hillslope
Slope: 1 %
Pattern Type: Rises
Relief: No Data
Slope Category: Gently inclined
Aspect: 350 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Chromosol
ASC Confidence:
Confidence level not specified
Mapping Unit: N/A
Principal Profile Form: Dy5.11
Great Soil Group: Lateritic podzolic soil

Site Disturbance: No effective disturbance. Natural

Vegetation:

Tall Strata - Tree, 12.01-20m, Mid-dense. *Species includes - Pinus radiata

Surface Coarse Fragments: 2-10%, coarse gravelly, 20-60mm, rounded tabular, Ironstone

Profile Morphology

O	0 - 0.01 m	Organic Layer; , 0-0% ; Single grain grade of structure; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Dry; Loose consistence; Abrupt, Smooth change to -
A1	0.01 - 0.1 m	Dark yellowish brown (10YR4/4-Moist); Light brown (7.5YR6/4-Dry); , 0-0% ; Loamy sand; Massive grade of structure; Moderately moist; Firm consistence; Abrupt, Wavy change to -
A2	0.1 - 0.3 m	Strong brown (7.5YR5/6-Moist); Pink (5YR7/4-Dry); , 0-0% ; Loamy sand; Single grain grade of structure; Moist; Loose consistence; Sharp, Wavy change to -
Bt	0.3 - 0.5 m	Reddish brown (5YR5/4-Moist); Pink (5YR7/4-Dry); , 2.5YR58, 20-50% , 5-15mm, Distinct; Medium clay; Moderate grade of structure; Wet; Loose consistence; Clear, Wavy change to -
BC	0.5 - 0.9 m	Strong brown (7.5YR5/8-Moist); Yellow (10YR7/6-Dry); , 10R46, 20-50% , 5-15mm, Prominent; Light clay; Single grain grade of structure; Loose consistence; Clear, Tongued change to -
C1r	0.9 - 1 m	Very pale brown (10YR7/4-Moist); Very pale brown (10YR7/4-Dry); , 10YR68, 20-50% , 5-15mm, Prominent; , 10R46; Light clay; Abrupt, Tongued change to -
C1	1 - 1.4 m	Very pale brown (10YR7/4-Moist); Very pale brown (10YR7/4-Dry); , 10YR68, 20-50% , 5-15mm, Prominent; , 10R46; Light clay; Single grain grade of structure; Loose consistence; Abrupt, Tongued change to -
C2r	1.4 - 2.3 m	White (5YR8/1-Moist); White (5YR8/1-Dry); , 7.5YR58, 20-50% , 15-30mm, Prominent; , 10R46; Fine sandy clay; Single grain grade of structure; Loose consistence;

Morphological Notes

Observation Notes

Site Notes

A1423

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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 - 0.1	4.7C 4.9A	0.05A	1.72D	0.71	0.15	0.1		4K	2.7D	2.50
0.1 - 0.3	4.3C 4.5A	0.05A	1.02D	1.15	0.13	0.14		3.9K	2.4D	3.59
0.3 - 0.5	4.4C 4.7A	0.07A	1.85D	5.55	0.21	0.4	0.72A	11.1K	8D	3.60
0.5 - 1	4.5C 4.6A	0.06A	1.01D	5.21	0.11	0.4	0.52A	9K	6.7D	4.44
1 - 2.3	4C 3.6A	0.08A	0.07D	0.98	0.06	0.21	4.44A	4.4K	1.3D	4.77

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 - 0.1		1.3C	5E		0.028D				44B	46	4	5
0.1 - 0.3		0.9C	3E		0.023D				41B	31	6	22
0.3 - 0.5		0.6C			0D				9B	10	8	71
0.5 - 1		0.2C			0D				13B	13	13	60
1 - 2.3		0.1C			0D				26B	26	12	37

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 - 0.1									
0.1 - 0.3									
0.3 - 0.5									
0.5 - 1									
1 - 2.3									

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Laboratory Analyses Completed for this profile

15B2_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_K	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_MG	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15B2_NA	Exchangeable bases and CEC - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15G1	Exchange acidity (hydrogen and aluminium) by 1M potassium chloride
15I3	CEC measurement - automated determination of ammonium and chloride ions
15J_BASES	Sum of Bases
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
4B2	pH of 1:5 soil/0.01M calcium chloride extract - following Method 4A1
5A2	Chloride - 1:5 soil/water extract, automated colour
6B3	Total organic carbon - high frequency induction furnace, infrared
7A5	Total nitrogen - high frequency induction furnace, thermal conductivity
9B2	Bicarbonate-extractable phosphorus - automated colour
P10A1_C	Clay (%) - Pipette
P10A1_CS	Coarse sand (%) - Pipette
P10A1_FS	Fine sand (%) - Pipette
P10A1_Z	Silt (%) - Pipette