

**Project Name:** Warren Reservoir Catchment Survey  
**Project Code:** WRN **Site ID:** 258 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (SA)

#### Site Information

<b>Desc. By:</b> I. Hollingsworth	<b>Locality:</b>
<b>Date Desc.:</b> 01/07/91	<b>Elevation:</b> 440 metres
<b>Map Ref.:</b> 1:10000	<b>Rainfall:</b> No Data
<b>Northing/Long.:</b> 6159540 AMG zone: 54	<b>Runoff:</b> Very slow
<b>Easting/Lat.:</b> 317395 Datum: AGD66	<b>Drainage:</b> Poorly drained

#### Geology

<b>ExposureType:</b> Auger boring	<b>Conf. Sub. is Parent. Mat.:</b> No Data
<b>Geol. Ref.:</b> No Data	<b>Substrate Material:</b> Auger boring, 2 m deep, Slightly porous, Clay

#### Land Form

<b>Rel/Slope Class:</b> Undulating rises 9-30m 3-10%	<b>Pattern Type:</b> Rises
<b>Morph. Type:</b> Open depression (vale)	<b>Relief:</b> No Data
<b>Elem. Type:</b> Valley flat	<b>Slope Category:</b> Very gently sloped
<b>Slope:</b> 2 %	<b>Aspect:</b> 280 degrees

**Surface Soil Condition (dry):** Firm

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b> N/A
Hydrosol	<b>Principal Profile Form:</b> Dy5.81
<b>ASC Confidence:</b>	<b>Great Soil Group:</b> Gleyed podzolic soil
Confidence level not specified	

**Site Disturbance:** Complete clearing. Pasture, native or improved, but never cultivated

#### Vegetation:

Tall Strata - Tree, 3.01-6m, Closed or dense. \*Species includes - Pinus radiata

**Surface Coarse Fragments:** No surface coarse fragments

#### Profile Morphology

A1	0 - 0.1 m	Very dark grey (10YR3/1-Moist); , 0-0% ; Silty clay loam; Moderate grade of structure, 2-5 mm, Granular; Rough-ped fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Wet; Weak consistence; 2-10%, medium gravelly, 6-20mm, rounded, dispersedstrong, Ferricrete, coarse fragments; Field pH 5 (Raupach, 0.05); Many, very fine (0-1mm) roots;
A1	0.1 - 0.15 m	Very dark grey (10YR3/1-Moist); ; Silty clay loam; Moderate grade of structure, 2-5 mm, Granular; Rough-ped fabric; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Wet; Weak consistence; 2-10%, medium gravelly, 6-20mm, rounded, dispersedstrong, Ferricrete, coarse fragments; Field pH 5.5 (Raupach, 0.15); Many, very fine (0-1mm) roots; Clear change to -
A21	0.15 - 0.3 m	Dark greyish brown (10YR4/2-Moist); , 2-10% , Distinct; Light clay; Massive grade of structure; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Wet; Weak consistence; Field pH 5.5 (Raupach, 0.2); Common, very fine (0-1mm) roots;
A22	0.3 - 0.35 m	Light brownish grey (2.5Y6/2-Moist); , 2-10% , Distinct; Light clay; Massive grade of structure; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Wet; Weak consistence; Field pH 6 (Raupach, 0.35); Common, very fine (0-1mm) roots; Clear change to -
Bt	0.35 - 0.5 m	Yellowish brown (10YR5/8-Moist); , 10-20% , Distinct; Sandy clay; Massive grade of structure; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Wet; Firm consistence; Field pH 6 (Raupach, 0.45); Few, very fine (0-1mm) roots;
Bt	0.5 - 0.75 m	Yellowish brown (10YR5/8-Moist); , 10-20% , Distinct; Sandy clay; Massive grade of structure; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Wet; Firm consistence; 2-10%, medium gravelly, 6-20mm, rounded, dispersedstrong, Quartz, coarse fragments; Field pH 6 (Raupach, 0.55); Few, very fine (0-1mm) roots; Abrupt change to -
2A2	0.75 - 0.8 m	Light grey (10YR7/1-Moist); , 0-0% ; Coarse sand; Massive grade of structure; Fine, (0 - 5) mm crack; Many (>5 per 100mm2) Very fine (0.075-1mm) macropores, Wet; Loose consistence; 20-50%, medium gravelly, 6-20mm, rounded, stratifiedstrong, Quartz, coarse fragments; Field pH 7 (Raupach, 0.8); Few, very fine (0-1mm) roots; Abrupt change to -

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2Bt	0.8 - 0.9 m	Yellowish brown (10YR5/8-Moist); , 10-20% , Distinct; Heavy clay; Massive grade of structure; Fine, (0 - 5) mm crack; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Wet; Very firm consistence; Field pH 6 (Raupach, 0.85); Few, very fine (0-1mm) roots; Clear change to -
2BC	0.9 - 1 m	Light grey (2.5Y7/2-Moist); , 2-10% , Prominent; Heavy clay; Massive grade of structure; Fine, (0 - 5) mm crack; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Wet; Very firm consistence; Field pH 6 (Raupach, 0.95);

**Morphological Notes**

**Observation Notes**

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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			%

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			%		

Depth	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar		
m					g/g -	m3/m3		mm/h	mm/h

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Laboratory Analyses Completed for this profile