

**Project Name:** WAGGA WAGGA SOIL LANDSCAPES  
**Project Code:** 1000448      **Site ID:** WW151      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (ACT)

#### Site Information

<b>Desc. By:</b>	Chen, XY	<b>Locality:</b>	
<b>Date Desc.:</b>	15/07/93	<b>Elevation:</b>	230 metres
<b>Map Ref.:</b>	Sheet No. : 8327 1:25000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6123950 AMG zone: 55	<b>Runoff:</b>	Moderately rapid
<b>Easting/Lat.:</b>	523250 Datum: AGD66	<b>Drainage:</b>	Moderately well drained

#### Geology

<b>ExposureType:</b>	No Data	<b>Conf. Sub. is Parent. Mat.:</b>	Probable
<b>Geol. Ref.:</b>	Ou	<b>Substrate Material:</b>	Gravel

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	Low hills
<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	5 %	<b>Aspect:</b>	270 degrees

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

**Erosion:** Partial, Minor (sheet)

#### Soil Classification

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Haplic Red Chromosol Medium Slightly gravelly Sandy Very shallow		<b>Principal Profile Form:</b>	Dr2.12
<b>ASC Confidence:</b>	Confidence level not specified	<b>Great Soil Group:</b>	Non-calcic brown soil

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

#### Vegetation:

**Surface Coarse Fragments:** 2-10%, fine gravelly, 2-6mm, subangular, ; No surface coarse fragments; No surface coarse fragments

#### Profile Morphology

A	0 - 0.1 m	Dark brown (7.5YR3/4-Moist); ; Loam; Massive grade of structure; Earthy fabric; Common (1-5 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Few (<1 per 100mm <sup>2</sup> ) Fine (1-2mm) macropores, Dry; Slightly plastic; Moderately sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; Field pH 5.5 (Raupach); Common, fine (1-2mm) roots; Clear, Smooth change to -
B2	0.1 - 0.5 m	Dark reddish brown (5YR3/4-Moist); ; Light clay; Moderate grade of structure, <2 mm, Granular; Rough-ped fabric; Few (<1 per 100mm <sup>2</sup> ) Very fine (0.075-1mm) macropores, Moderately moist; Moderately plastic; Very sticky; 2-10%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; Field pH 6.5 (Raupach); Common, fine (1-2mm) roots; Diffuse change to -
B3	0.5 - 0.8 m	Dark yellowish brown (10YR4/6-Moist); Mottles, 0-2% , Faint; Light medium clay; Moderate grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Moderately moist; Very plastic; Very sticky; 10-20%, fine gravelly, 2-6mm, subangular, dispersed, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 7 (Raupach); Few, fine (1-2mm) roots;

#### Morphological Notes

A	Some stone concentration on surface. fraction is fine.	Lithic-sandstone, mud-stone.	Sand
B3	Stone increase downwards.		

#### Observation Notes

Pit to 30cm, auger to 80cm.

#### Site Notes

40M IN GATE, E OF TRACK

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**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 - 0.1	4.8B	0.19A	3.4J	1.2	1.6	0.3	0L	5.9I		5.08
0.1 - 0.5	5.6B	0.05A	5.1J	3.4	1.3	0.4	0L	9.3I		4.30
0.5 - 0.8	6.1B	0.06A	8.3J	7.9	2.1	0.8	0L	18.6I		4.30

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle GV	Size CS	Analysis FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1		1.98A	3D					15	14F	46	13	12
0.1 - 0.5		0.35A	0D					6	15F	31	8	40
0.5 - 0.8		0.21A	0D					18	4F	9	3	66

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
m		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar	mm/h	mm/h
				g/g - m3/m3						
0 - 0.1				0.42B				0.09B		
0.1 - 0.5				0.42B				0.17B		
0.5 - 0.8				0.62B				0.3B		

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**Laboratory Analyses Completed for this profile**

15F1_CA	Exchangeable bases by 0.01M silver-thiourea (AgTU)+, no pretreatment for soluble salts
15F1_K	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_MG	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F1_NA	Exchangeable bases by 0.01m (AgTU)+, no pretreatment for soluble salts
15F2	Exchangeable aluminium by 0.01m (AgTU)+
15F3	CEC by 0.01M silver-thiourea (AgTU)+
3A1	EC of 1:5 soil/water extract
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1	Organic carbon - Walkley and Black
9E	Available P (mg/kg) - Bray P
9J2	Phosphate sorption curve - automated colour
P10_GRAV	Gravel (%)
P10_HYD_C	Clay (%) - Hydrometer Method
P10_HYD_CS	Coarse Sand (%) - Hydrometer Method
P10_HYD_FS	Fine Sand (%) - Hydrometer Method
P10_HYD_Z	Silt (%) - Hydrometer Method
P3B_GV_01	0.1 BAR Moisture g/g - Gravimetric using suction plate
P3B_GV_15	15 BAR Moisture g/g - Gravimetric using pressure plate