

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI **Site ID:** bu004 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

#### Site Information

<b>Desc. By:</b>	W.T. Ward	<b>Locality:</b>	stock route, opposite Fairfield
<b>Date Desc.:</b>	31/05/88	<b>Elevation:</b>	176 metres
<b>Map Ref.:</b>	Sheet No. : 8738_S 1:50000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6682400 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	723600 Datum: AGD66	<b>Drainage:</b>	No Data

#### Geology

<b>ExposureType:</b>	Undisturbed soil core	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	No Data	<b>Substrate Material:</b>	No Data

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	No Data
<b>Morph. Type:</b>	No Data	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Terrace flat	<b>Slope Category:</b>	Level
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

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

#### Erosion:

#### Soil Classification

<b>Australian Soil Classification:</b>	N/A	<b>Mapping Unit:</b>	N/A
<b>ASC Confidence:</b>	Confidence level not specified	<b>Principal Profile Form:</b>	N/A
		<b>Great Soil Group:</b>	Red-brown earth

**Site Disturbance:** Complete clearing. Pasture, native or improved, cultivated at some stage

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

A1	0 - 0.05 m	Dark reddish brown (5YR3/3-Moist); Reddish brown (5YR5/3-Dry); ; Clay loam; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Field pH 6.5 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Wavy change to -
B21	0.05 - 0.1 m	Dark reddish grey (5YR4/2-Moist); ; Light clay; Moderate grade of structure, 50-100 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; Field pH 7 (pH meter); Few, very fine (0-1mm) roots;
B22	0.1 - 0.25 m	Dark reddish brown (5YR3/3-Moist); ; 5YR63, 0-2% , 0-5mm, Distinct; Light medium clay; Moderate grade of structure, 50-100 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
B23	0.25 - 0.6 m	Dark reddish brown (5YR3/3-Moist); ; Light medium clay; Weak grade of structure, 50-100 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; Very few (0 - 2 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B24k	0.6 - 1 m	Reddish brown (5YR4/4-Moist); ; Light clay; Strong grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 2-5 mm, Cast; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Strong consistence; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Concretions; Field pH 9 (pH meter); Few, very fine (0-1mm) roots;
B25	1 - 1.6 m	Reddish brown (5YR4/4-Moist); ; Light medium clay; Moderate grade of structure, 10-20 mm, Prismatic; Strong grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Strong consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9 (pH meter); Diffuse, Smooth change to -
C	1.6 - 2.5 m	Strong brown (7.5YR5/6-Moist); ; 5YR33, 20-50% , 0-5mm, Distinct; ; 5YR33, 10-20% , 5-15mm, Distinct; Light clay; Weak grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Strong consistence; Field pH 9 (pH meter);

#### Morphological Notes

A1 A shallow surface on red-brown clay. The sand from above at 10-20cm is A horizon

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**Observation Notes**

Parent Rock: alluvial sediment, mixed texture, with lime, clay second terraced fan, Namoi

**Site Notes**

A red strip crossing grey plains. Beside scald in field through fence. Flat to very repeat very gently undulating.

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**Laboratory Test Results:**

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
		Ca	Mg	K	Na	Acidity			
m		dS/m				Cmol (+)/kg			%

0 - 0.05  
0.05 - 0.1  
0.1 - 0.2  
0.3 - 0.4  
0.7 - 0.8  
1.2 - 1.3  
2.4 - 2.5

Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	Particle		Size	Analysis	
		C	P	P	N	K	Density	GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		

0 - 0.05  
0.05 - 0.1  
0.1 - 0.2  
0.3 - 0.4  
0.7 - 0.8  
1.2 - 1.3  
2.4 - 2.5

[illegible]

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Laboratory Analyses Completed for this profile