

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI **Site ID:** ed168 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

#### Site Information

<b>Desc. By:</b> W.T. Ward	<b>Locality:</b> J.R. Armitage, Gruie
<b>Date Desc.:</b> 31/01/86	<b>Elevation:</b> 230 metres
<b>Map Ref.:</b> Sheet No. : 8837_N 1:50000	<b>Rainfall:</b> No Data
<b>Northing/Long.:</b> 6655800 AMG zone: 55	<b>Runoff:</b> No Data
<b>Easting/Lat.:</b> 767500 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):** Surface crust, Trampled

#### 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> Ug6.1
	<b>Great Soil Group:</b> Brown clay

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

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

A11	0 - 0.1 m	Dark brown (7.5YR3/2-Moist); Dark brown (10YR3/3-Dry); ; Light clay; Moderate grade of structure, 20-50 mm, Angular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; Field pH 6.5 (pH meter); Common, very fine (0-1mm) roots;
A12	0.1 - 0.25 m	Dark brown (7.5YR3/2-Moist); ; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots;
A13	0.25 - 0.55 m	Dark brown (7.5YR3/2-Moist); , 7.5YR64, 0-2% , 0-5mm, Faint; Medium clay; Strong grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
A14	0.55 - 0.9 m	Dark brown (7.5YR3/2-Moist); , 10YR42, 0-2% , 0-5mm, Faint; , 10YR44, 0-2% , 0-5mm, Distinct; Medium heavy clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Diffuse, Smooth change to -
B2	0.9 - 2.2 m	Pinkish white (5YR8/2-Moist); , 7.5YR84, 0-2% , 0-5mm, Faint; , 5YR22, 2-10% , 5-15mm, Distinct; Medium clay; Moderate grade of structure, 20-50 mm, Angular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.8 (pH meter); Diffuse, Smooth change to -
C	2.2 - 2.75 m	Reddish brown (5YR4/4-Moist); , 7.5YR42, 0-2% , 5-15mm, Faint; , 5YR32, 20-50% , 30-mm, Prominent; Medium clay; Weak grade of structure, 50-100 mm, Angular blocky; Earthy fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.8 (pH meter);

#### Morphological Notes

A11 Second and third cores were labelled "ed 186", but at time of description, site 186 had not been sampled. Topsoil has dried out, powdery surface (weak fine granular) coexisting with moderate to strong angular blocky, but not enough to recognize two structures 0-10. Colour one, 250-260, is for parent material.

A12

#### Observation Notes

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

#### Site Notes

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI      **Site ID:** ed168      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

Grasses too dry and eaten to identify. Surface soil is reddish-brown, and appears quite dispersive. No surface stone.

**Project Name:** Soil Studies in the Lower Namoi Valley

**Project Code:** EDGEROI      **Site ID:** ed168

**Observation ID: 1**

**Agency Name:** CSIRO Division of Soils (QLD)

**Laboratory Test Results:**

Depth	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
m		dS/m	Ca	Mg	K	Na Cmol (+)/kg	Acidity		%
0 - 0.02	7.02A	0.117A	11.37B	12.24	2.42	<0.01			
0 - 0.1	6.46A	0.24A	7.46B	11.54	1.24	0.939999			
0.1 - 0.2	7.42A	0.139A	12.15B	22.42	0.82	2.2			
0.3 - 0.4	8.98A	0.356A	15.41B	28.16	0.65	4.21			
0.7 - 0.8	8.94A	0.322A	10.12B	26.36	0.64	5.64			
1.2 - 1.3	9.23A	0.328A	8.25B	20.14	0.56	3.63			
2.5 - 2.6	9.13A	0.269A	9.4B	25.65	0.58	4.84			

[illegible][illegible]

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI      **Site ID:** ed168      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Laboratory Analyses Completed for this profile**

15A2_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_K	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_MG	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_NA	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
19B1	Carbonates - manometric
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
6B3	Total organic carbon - high frequency induction furnace, infrared
7B1	Water soluble nitrate - automated colour
9B1	Bicarbonate-extractable phosphorus - manual colour
P10_CF_C	Clay (%) - Coventry and Fett pipette method
P10_CF_Z	Silt (%) - Coventry and Fett pipette method