

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI **Site ID:** ed078 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

#### Site Information

<b>Desc. By:</b>	M.E. Heape	<b>Locality:</b>	R.G.(Rick) Freeman, Ventura
<b>Date Desc.:</b>	19/02/86	<b>Elevation:</b>	216 metres
<b>Map Ref.:</b>	Sheet No. : 8837_N 1:50000	<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6667900 AMG zone: 55	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	760900 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 plain	<b>Slope Category:</b>	Very gently sloped
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

**Surface Soil Condition (dry):** Self-mulching, Recently cultivated

#### 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>	Ug5.16
		<b>Great Soil Group:</b>	Grey clay

**Site Disturbance:** Cultivation. Rainfed

#### Vegetation:

#### Surface Coarse Fragments:

#### Profile Morphology

A11p	0 - 0.05 m	Very dark grey (10YR3/1-Moist); Very dark brown (10YR2/2-Dry); ; Light clay; Moderate grade of structure, 2-5 mm, Granular; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A12	0.05 - 0.1 m	Very dark grey (10YR3/1-Moist); , 10YR41, 0-2% , 0-5mm, Faint; Light clay; Moderate grade of structure, 20-50 mm, Angular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots;
A13	0.1 - 0.25 m	Very dark grey (10YR3/1-Moist); , 10YR41, 0-2% , 0-5mm, Faint; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots;
A14	0.25 - 0.65 m	Very dark grey (10YR3/1-Moist); , 10YR41, 0-2% , 0-5mm, Faint; , 10YR72, 0-2% , 0-5mm, Distinct; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
B21	0.65 - 1 m	Dark brown (7.5YR3/2-Moist); , 10YR31, 0-2% , 0-5mm, Distinct; , 10YR72, 0-2% , 0-5mm, Distinct; Light medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
B22	1 - 2.32 m	Dark reddish grey (5YR4/2-Moist); , 10YR31, 10-20% , 5-15mm, Distinct; , 5YR72, 0-2% , 0-5mm, Distinct; Medium heavy clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 0.01m2) Coarse (>5mm) macropores, Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
B23	2.32 - 2.82 m	Dark reddish grey (5YR4/2-Moist); , 2.5YR66, 0-2% , 0-5mm, Distinct; , 5YR81, 0-2% , 0-5mm, Distinct; Heavy clay; Moderate grade of structure, 10-20 mm, Lenticular; Moderate grade of structure, 10-20 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very few (0 - 2 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (pH meter);

#### Morphological Notes

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI      **Site ID:** ed078      **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

A11p      Notice small lime nodules at 30-40. Lithological contact, fine gravel and sand at 232.  
Surface granular structure is seedbed.

**Observation Notes**

Parent Rock: alluvial sediment, mixed texture, with lime, parna on fourth fan

**Site Notes**

Old airstrip. Rick Freeman "Ventura", Edgeroi 2391, requests a copy of the results. He grows canary seeds. Hole is 200m south of the target. 300m south there is a small area with a lighter brown surface.

**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	Acidity		%
						Cmol (+)/kg			
0 - 0.02	7.77A	0.062A	16.13B	8.25	1.36	1.37			
0 - 0.05	6.89A	0.139A	17.6B	11.05	1.34	1.03			
0.05 - 0.1	7.32A	0.111A	17.06B	9.04	0.83	1.61			
0.1 - 0.2	7.64A	0.107A	17.03B	11.84	0.58	2.48			
0.3 - 0.4	9.01A	0.272A	20.5B	15.41	0.35	3.74			
0.7 - 0.8	8.46A	0.957A	20.03B	18.05	0.71	7.49			
1.2 - 1.3	8.88A	0.649A	21.65B	18.71	0.93	8.69000			
						1			
2.5 - 2.6	8.53A	0.59A	23.17B	21.14	0.81000	10.12			
					01				

[illegible][illegible]

**Project Name:** Soil Studies in the Lower Namoi Valley  
**Project Code:** EDGEROI      **Site ID:** ed078      **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