

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed100 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	M.E. Heape	Locality:	P.E.(Phil) Tout, Belbowrie
Date Desc.:	19/02/86	Elevation:	268 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6665200 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	773200 Datum: AGD66	Drainage:	No Data

Geology

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

Land Form

Rel/Slope Class:	No Data	Pattern Type:	No Data
Morph. Type:	No Data	Relief:	No Data
Elem. Type:	Hillcrest	Slope Category:	Very gently sloped
Slope:	1 %	Aspect:	200 degrees

Surface Soil Condition (dry): Hardsetting, Recently cultivated

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Dy5.13
		Great Soil Group:	Siliceous sand

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Dark brown (10YR3/3-Moist); Dark brown (10YR3/3-Dry); ; Sandy loam; Weak grade of structure, 20-50 mm, Subangular blocky; Weak grade of structure, <2 mm, Granular; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots;
A12	0.1 - 0.25 m	Dark brown (10YR3/3-Moist); ; Clayey sand; Weak grade of structure, 20-50 mm, Subangular blocky; Weak grade of structure, <2 mm, Granular; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 0.01m2) Medium (2-5mm) macropores, Moderately moist; Weak consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Irregular change to -
B21	0.25 - 0.65 m	Yellowish brown (10YR5/4-Moist); , 10YR33, 2-10% , 5-15mm, Distinct; Clayey sand; Weak grade of structure, 50-100 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subangular, Quartz, coarse fragments; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
B22	0.65 - 1 m	Yellowish brown (10YR5/4-Moist); , 2.5YR46, 2-10% , 0-5mm, Distinct; , 10YR34, 0-2% , 5-15mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Columnar; Earthy fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;
B23k	1 - 2 m	Light yellowish brown (10YR6/4-Moist); , N60, 10-20% , 5-15mm, Distinct; , 2.5YR44, 2-10% , 5-15mm, Prominent; Light clay; Strong grade of structure, 20-50 mm, Columnar; 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, Fine (0 - 2 mm), Veins; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
C	2 - 2.59 m	Reddish yellow (7.5YR6/6-Moist); , N60, 2-10% , 5-15mm, Prominent; , 5YR54, 0-2% , 0-5mm, Faint; Clayey sand; Massive grade of structure; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; Field pH 8 (pH meter);

Morphological Notes

A11	Red colour in 70-80cm and 120-130cm could be the primary red colour. 30-40cm abandoned small ant nest at 56cm. Many pores in the upper part of the B horizon. At 60cm one large stone (4cm long) and other smaller stones lying on the contact w
-----	--

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed100 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

A12 ith the lower B texture change - biotic stone line. 120-130 tensile reading reading doubtful. 120-130 has 7.5YR4/0 humus stain on peds and in worm channels. At 180 is stoneline marking contact between pedisediment and sandstone in place. 25
B21 0-260 is sandstone with a crack in it containing soil.

Observation Notes

Parent Rock: colluvial sediment, from sandstone, with lime, Tertiary beds, weathered

Site Notes

This site is 200m from the top of a sandstone ridge. Sandstone stone on top of soil shows fine sand, highly ferruginised.

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed100
Agency Name: CSIRO Division of Soils (QLD)

Observation ID: 1

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	6.97A	0.066A	5.28B	1.54	1.05	<0.01			
0 - 0.1	6.29A	0.116A	2.83B	1.38	0.75	<0.01			
0.1 - 0.2	6.88A	0.039A	4.68B	1.79	0.79	<0.01			
0.3 - 0.4	7.27A	0.024A	3.99B	1.36	0.56	<0.01			
0.7 - 0.8	7.8A	0.032A	7.88B	3.42	0.63	0.02			
1.2 - 1.3	8.33A	0.118A	10.28B	10.02	0.43	0.17			
2.5 - 2.6	8.68A	0.113A	6.14B	10.49	0.55	0.79			

Depth m	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS %	Silt Clay
0 - 0.02	<0.1B	1.39C									4 12.1
0 - 0.1	<0.1B	0.92C	40.4J								4.4 14.2
0.1 - 0.2	<0.1B	0.59C	37.8J								4.3 19
0.3 - 0.4	<0.1B	0.31C	21.1J								4.4 15.5
0.7 - 0.8	<0.1B	0.22C	4.4J								4.8 30.6
1.2 - 1.3	0.2B	0.16C	4.5J								3.1 44.3
2.5 - 2.6	<0.1B	0.08C	12.2J								5.7 33.3

[illegible]

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed100 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Laboratory Analyses Completed for this profile

15A2_CA	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 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