

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** na006 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	W.T. Ward	Locality:	stock route, near Bohena
Date Desc.:	08/03/88	Elevation:	237 metres
Map Ref.:	Sheet No. : 8837_S 1:50000	Rainfall:	No Data
Northing/Long.:	6630150 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	753950 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:	Terrace plain	Slope Category:	Very gently sloped
Slope:	1 %	Aspect:	90 degrees

Surface Soil Condition (dry): Self-mulching

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Dy5.23
		Great Soil Group:	Solodic soil

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 (10YR3/3-Moist); Grey (10YR5/1-Dry); ; Fine sandy loam; Massive grade of structure; Weak grade of structure, 10-20 mm, Subangular blocky; Sandy (grains prominent) fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Field pH 5 (pH meter); Few, very fine (0-1mm) roots;
A12	0.1 - 0.15 m	Dark brown (10YR3/3-Moist); ; 7.5YR4/3, 0-2% , 5-15mm, Faint; Sandy loam; Massive grade of structure; Sandy (grains prominent) fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Field pH 4.5 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
A2	0.15 - 0.3 m	Brown (7.5YR5/4-Moist); ; 10YR3/3, 2-10% , 15-30mm, Distinct; Clay loam; Massive grade of structure; Sandy (grains prominent) fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very weak consistence; Field pH 4.5 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Wavy change to -
B21	0.3 - 0.55 m	Light yellowish brown (10YR6/4-Moist); ; 10YR5/2, 20-50% , 15-30mm, Distinct; ; 10YR6/1, 2-10% , 5-15mm, Faint; Light clay; Moderate grade of structure, 100-200 mm, Columnar; Weak grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 6.5 (pH meter); Few, very fine (0-1mm) roots;
B22	0.55 - 1 m	Red (2.5YR4/6-Moist); ; 10YR5/3, 20-50% , 15-30mm, Distinct; ; 10YR6/2, 10-20% , 5-15mm, Distinct; Light clay; Weak grade of structure, 20-50 mm, Angular blocky; Weak grade of structure, 2-5 mm, Platy; Sandy (grains prominent) fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
B23	1 - 1.8 m	Yellowish red (5YR5/6-Moist); ; 7.5YR6/6, 20-50% , 15-30mm, Prominent; ; 10YR6/1, 20-50% , 15-30mm, Prominent; Light clay; Weak grade of structure, 2-5 mm, Platy; Sandy (grains prominent) fabric; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 7.5 (pH meter); Diffuse, Smooth change to -
C1	1.8 - 3.05 m	Red (2.5YR4/6-Moist); ; 10YR7/1, 20-50% , 15-30mm, Prominent; ; 10YR5/6, 20-50% , 15-30mm, Prominent; Light clay; Massive grade of structure; Sandy (grains prominent) fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 7 (pH meter);

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** na006 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

C2 3.05 - 3.83 m Dark yellowish brown (10YR4/4-Moist); , 10YR71, 20-50% , 30-mm, Prominent; Light clay; Massive grade of structure; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; Very few (0 - 2 %), Unidentified, Fine (0 - 2 mm), Soft segregations; Field pH 7 (pH meter);

Morphological Notes

A11 Brigalow 3. Solodic soil on prior soil on alluvium.
C2 horizon seemingly inherited from an older prior soil, but not separated by any evidence of erosion. (The present soil is the remodelled prior soil)

Observation Notes

Parent Rock: prior soil, sand, over weathered sands and clayey sands fifth (eroded) fan, Culgoora

Site Notes

There is very slight evidence of gilgai here - seen in vegetation in adjoining field. Just into brigalow trees here.

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** na006
Agency Name: CSIRO Division of Soils (QLD)

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 - 0.1	5.21A	0.188A	2.2B	1.2	0.38	<0.01			
0.1 - 0.2	4.8A	0.097A	0.75B	0.89	0.25	<0.01			
0.2 - 0.3	5.23A	0.062A	<0.1B	0.4	0.08	0.06			
0.3 - 0.4	6.65A	0.119A	1.34B	3.17	0.13	2.52			
0.7 - 0.8	8.24A	0.365A	1.78B	7.33	0.18	9.04			
1.2 - 1.3	7.07A	0.332A	0.95B	6.52	0.17	8.61			
2.5 - 2.6	7.69A	0.243A	0.16B	4.24	0.11	6.56			
3.5 - 3.6	7.06A	0.33A	0.76B	14.09	0.42	20.07			

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle		Size	Analysis	
								GV	CS		FS	Silt
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.1	<0.1B	1.77C	15.2J									
0.1 - 0.2	<0.1B	0.69C	4J									
0.2 - 0.3	<0.1B	0.45C	2.9J									
0.3 - 0.4	<0.1B	0.32C	2.1J									
0.7 - 0.8	<0.1B	0.17C	1.5J									
1.2 - 1.3	<0.1B	0.17C	<1J									
2.5 - 2.6	<0.1B	0.05C	<1J									
3.5 - 3.6	<0.1B	0.03C	1J									

[illegible]

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** na006 **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