

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed006 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.M. Roberts	Locality:	K.W. Eather, Kurrawombi
Date Desc.:	19/08/85	Elevation:	204 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6677700 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	755600 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:	Level
Slope:	0 %	Aspect:	No Data

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

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Ug5.15
		Great Soil Group:	Brown clay

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11p	0 - 0.1 m	Dark grey (10YR4/1-Moist); Dark greyish brown (10YR4/2-Dry); ; Light medium clay; Weak grade of structure, 50-100 mm, Subangular blocky; Weak grade of structure, <2 mm, Granular; Earthy fabric; Medium, (5 - 10) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;
A12p	0.1 - 0.3 m	Brown (7.5YR4/2-Moist); Brown (7.5YR4/2-Dry); , 10YR81, 0-2% , 0-5mm, Prominent; Heavy clay; Weak grade of structure, 10-20 mm, Subangular blocky; Moderate grade of structure, 5-10 mm, Subangular blocky; Earthy fabric; Smooth-ped fabric; Medium, (5 - 10) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
A13k	0.3 - 0.58 m	Dark brown (7.5YR3/2-Moist); Dark brown (7.5YR3/2-Dry); , 10YR81, 2-10% , 5-15mm, Prominent; Heavy clay; Moderate grade of structure, 10-20 mm, Lenticular; Weak grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Earthy fabric; Medium, (5 - 10) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; 0-2%, fine gravelly, 2-6mm, rounded, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
B21k	0.58 - 1 m	Brown (7.5YR4/4-Moist); Brown (7.5YR4/4-Dry); , 7.5YR32, 10-20% , 15-30mm, Distinct; , 7.5YR72, 2-10% , 15-30mm, Prominent; Medium clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Earthy fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Very few (0 - 2 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9 (pH meter);
B22	1 - 1.9 m	Brown (10YR4/3-Moist); Brown (10YR4/3-Dry); , N30, 10-20% , 15-30mm, Prominent; , 7.5YR72, 0-2% , 0-5mm, Prominent; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Common (10 - 20 %), Manganiferous, Coarse (6 - 20 mm), Laminae; Field pH 9 (pH meter);

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B23 1.9 - 2.59 m Dark greyish brown (10YR4/2-Moist); Dark greyish brown (10YR4/2-Dry); , 7.5YR54, 0-2% , 5-15mm, Prominent; , 10YR72, 2-10% , 15-30mm, Prominent; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moderate grade of structure, 10-20 mm, Lenticular; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Soft segregations; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Laminae; Field pH 9 (pH meter);

Morphological Notes

A11p Infilled sand along cracks at 200-259cm.

Observation Notes

Parent Rock: alluvial sediment, clay, parna on fourth fan

Site Notes

No sandy bands found at this site. Other than that it is similar to site 024.

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Exchangeable Cations			Exchangeable Acidity Na Cmol (+)/kg	CEC	ECEC	ESP
			Ca	Mg	K				%
0 - 0.02	8.36A	0.079A	30.56B	11.7	1.66	1.77			
0 - 0.1	8.57A	0.111A	22.44B	11.49	1.42	2.29			
0.1 - 0.2	9.14A	0.172A	26.92B	12.42	1.25	3.74			
0.3 - 0.4	9.47A	0.224A	25.62B	12.26	0.98	6.96			
0.7 - 0.8	9.31A	0.479A	24.53B	15.86	1.21	11.93			
1.2 - 1.3	9.05A	0.728A	24.96B	16.6	1.52	12.64			
2.5 - 2.59	9.04A	0.9080001A	28.07B	17.07	1.48	14.68			

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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