

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed179 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	W.T. Ward	Locality:	W.J.(Bill) Cathcart, Wild Willows
Date Desc.:	26/06/86	Elevation:	198 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6653900 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	749600 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 flat	Slope Category:	Very gently sloped
Slope:	2 %	Aspect:	60 degrees

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Ug5.17
		Great Soil Group:	Prairie soil

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Very dark grey (10YR3/1-Moist); Greyish brown (10YR5/2-Dry); ; Light medium clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Moderate grade of structure, 2-5 mm, Granular; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 7 (pH meter); Few, very fine (0-1mm) roots;
A12	0.1 - 0.25 m	Very dark grey (10YR3/1-Moist); ; Light clay; Moderate grade of structure, 50-100 mm, Angular blocky; Smooth-ped fabric; Medium, (5 - 10) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 7.8 (pH meter); Few, very fine (0-1mm) roots;
A13	0.25 - 0.55 m	Very dark grey (10YR3/1-Moist); ; Medium clay; Weak grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;
A14	0.55 - 0.95 m	Dark grey (10YR4/1-Moist); ; Medium clay; Weak grade of structure, 100-200 mm, Lenticular; Moderate grade of structure, 20-50 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to
B2	0.95 - 1.5 m	Dark greyish brown (10YR4/2-Moist); , 10YR41, 20-50% , 5-15mm, Prominent; Light clay; Weak grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Very firm consistence; Field pH 9 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
2AC	1.5 - 2.61 m	Brown (10YR5/3-Moist); , 10YR41, 2-10% , 0-5mm, Distinct; Fine sandy light clay; Weak grade of structure, 100-200 mm, Prismatic; Smooth-ped fabric; Moderately moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, subangular, Consolidated rock (unidentified), coarse fragments; Field pH 8 (pH meter);

Morphological Notes

A11 At 150 to 160 there is a sandy alluvial lens, passing at 175cm to darker, still prismatic, buried horizon. The fragments at 250-260 are possibly baked clay - see also site 199. Alluvial soil (WTW). 120-130 could be AC.

Observation Notes

Parent Rock: alluvial sediment, clay, sand floodplain, Namoi

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Site Notes

This has been cleared but not used extensively because of frequent flooding. Wheat. (Also not[e] wiregrass at site).

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Project Code: EDCERO1 Site ID: 3d
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	7.33A	0.078A	20.76B	12.73	1.37	0.18			
0 - 0.1	7.32A	0.166A	22.41B	12.78	0.82	0.46			
0.1 - 0.2	7.54A	0.068A	24.37B	12.98	0.53	0.53			
0.3 - 0.4	7.98A	0.046A	23.47B	13.2	0.46	0.67			
0.7 - 0.8	8.24A	0.058A	20.67B	13.63	0.51	0.93999			
						99			
1.2 - 1.3	8.48A	0.074A	16.48B	11.19	0.4	0.9			
2.5 - 2.6	8.02A	0.044A	9.12B	6.75	0.32	0.53			

Depth m	CaCO ₃	Organic C	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m ³	Particle Size		Analysis	
	%	%						GV	CS	FS %	Silt Clay
0 - 0.02	<0.1B	1.95C									25.1 50.6
0 - 0.1	0.1B	1.8C	77.1J								22.3 47.8
0.1 - 0.2	<0.1B	1.3C	40.1J								24 50.1
0.3 - 0.4	<0.1B	0.98C	39.3J								25.1 48.4
0.7 - 0.8	<0.1B	0.87C	61.2J								14.2 38.1
1.2 - 1.3	0.1B	0.36C	52.9J								20.3 34.8
2.5 - 2.6	<0.1B	0.29C	46.3J								12.7 23.1

[illegible]

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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