

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed193 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	M.E. Heape	Locality:	R.L.(Bob) Burrell, Woodlands
Date Desc.:	12/02/86	Elevation:	427 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6652800 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	787900 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:	Moderately inclined
Slope:	2 %	Aspect:	0 degrees

Surface Soil Condition (dry): Surface crust

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Ug6.3
		Great Soil Group:	Brown clay

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

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Dark reddish brown (5YR3/2-Moist); Dark reddish brown (5YR3/2-Dry); ; Medium clay; Weak grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 2-5 mm, Cast; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;
A12	0.1 - 0.25 m	Dark reddish brown (5YR3/4-Moist); ; Medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;
A13	0.25 - 0.56 m	Dark reddish grey (5YR4/2-Moist); ; Heavy clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Very firm consistence; 2-10%, fine gravelly, 2-6mm, subangular, Basalt, coarse fragments; Field pH 7 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
B2r	0.56 - 0.93 m	Reddish brown (5YR4/3-Moist); ; Light clay; Massive grade of structure; Earthy fabric; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; 50-90%, cobbly, 60-200mm, subangular, Basalt, coarse fragments; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;

Morphological Notes

A11 Too smashed up to give meaningful physical measurements. Some similarities with site 195 except lack of crumb structure. A shallow soil on rock. Alluvium or colluvium.

Observation Notes

Parent Rock: alluvial sediment, mixed texture, non-calcareous, Nandewar Volcanics

Site Notes

Surface soil has many small (1-2cm) gravels. Stipa identification uncertain. Profile stopped by heavy stone at 90cm. Higher part of large fan spilling from sandstone and basalt scarp. Meandering streams ingrown ca 2-3m.

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Depth m	pH	1:5 EC	Exchangeable Cations			Exchangeable	CEC	ECEC	ESP
		Ca dS/m	Mg	K	Na Cmol (+)/kg	Acidity			
0 - 0.02	7.23A	0.086A	20.98B	3.68	2.37	0.01			
0 - 0.1	7.16A	0.196A	21.51B	5.46	2.76	0.07			
0.1 - 0.2	7.33A	0.083A	24.48B	6.64	1.19	0.1			
0.3 - 0.4	6.6A	0.046A	20.03B	7.21	0.54	0.18			
0.7 - 0.8	7.8A	8.899999E-02A	22.33B	8.1	0.43	0.39			

Depth m	CaCO ₃	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
	%	%	mg/kg	%	%	%	Mg/m ³	Gv	Cs	Fs	Silt Clay
0 - 0.02	<0.1B	4.14C									24 32.2
0 - 0.1	<0.1B	2.68C	134.8J								23.3 42.6
0.1 - 0.2	<0.1B	0.79C	72.7J								22.5 53.2
0.3 - 0.4	<0.1B	0.7C	76.8J								23.8 50
0.7 - 0.8	0.1B	0.44C	36.2J								19 36.4

[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