

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed214 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: W.T. Ward	Locality: stock route, near Galathera tank
Date Desc.: 11/03/85	Elevation: 208 metres
Map Ref.: Sheet No. : 8837_N 1:50000	Rainfall: No Data
Northing/Long.: 6664800 AMG zone: 55	Runoff: No Data
Easting/Lat.: 759500 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: Level
Slope: 0 %	Aspect: No Data

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: Ug6.1
	Great Soil Group: Grey clay

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.15 m	Dark brown (7.5YR3/2-Moist); Brown (7.5YR4/2-Dry); ; Light clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Rough-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; Clear, Wavy change to -
A12	0.15 - 0.25 m	Dark brown (7.5YR3/2-Moist); Dark brown (7.5YR3/2-Dry); ; Light medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, rounded tabular, Quartz, coarse fragments; Field pH 9 (pH meter); Common, very fine (0-1mm) roots;
A13	0.25 - 0.6 m	Brown (7.5YR4/2-Moist); Dark brown (7.5YR3/2-Dry); , 10YR73, 2-10% , 0-5mm, Distinct; Medium clay; Strong grade of structure, 20-50 mm, Angular blocky; Rough-ped fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Few (2 - 10 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 9 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
C1	0.6 - 1 m	Dark brown (7.5YR3/2-Moist); , 10YR54, 2-10% , 5-15mm, Distinct; , 10YR82, 2-10% , 0-5mm, Distinct; Light medium clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Few (2 - 10 %), Gypseous, Medium (2 - 6 mm), Crystals; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
C2	1 - 1.6 m	Brown (7.5YR4/2-Moist); , N40, 20-50% , 15-30mm, Distinct; , 10YR82, 0-2% , 0-5mm, Distinct; Light clay; Weak grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Firm consistence; Very few (0 - 2 %), Gypseous, Fine (0 - 2 mm), Crystals; Field pH 7.8 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
C3	1.6 - 2.62 m	Greyish brown (2.5Y5/2-Moist); ; Coarse sandy light clay; Weak grade of structure, 20-50 mm, Subangular blocky; Rough-ped fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Very firm consistence; Field pH 4.5 (pH meter);

Morphological Notes

Observation Notes

Parent Rock: alluvial sediment, mixed texture, with lime, first terraced fan

Site Notes

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A low terrace.

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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	0.18A	14.91B	4.04	1.83	0.2			
0 - 0.1	8.13A	0.266A	19.92B	5.91	1.42	1.17			
0.15 - 0.2	9A	0.214A	23.77B	6.43	0.57	2.99			
0.3 - 0.4	9.08A	0.541A	21.08B	8.11	0.37	8.3			
0.7 - 0.8	8.07A	2.07A	18.99B	8.75	0.56	7.6			
1.2 - 1.3	8.47A	1.121A	17.05B	7.11	0.56	6.88			
2.5 - 2.6	5.27A	0.919A	13.13B	5.1	0.35	6.57			

[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