

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed172 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	D. McGarry	Locality:	I.O.(Ian) Falkiner, Murrumbilla
Date Desc.:	06/06/86	Elevation:	299 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6655500 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	778400 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:	Hillslope	Slope Category:	Very gently sloped
Slope:	1 %	Aspect:	180 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:	Dg3.42
		Great Soil Group:	Soloth

Site Disturbance:

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Dark brown (7.5YR3/4-Moist); ; Sand; Single grain grade of structure, <2 mm; Weak grade of structure, 5-10 mm, Granular; Sandy (grains prominent) fabric; Earthy fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very weak consistence; Field pH 6.5 (pH meter); Few, very fine (0-1mm) roots;
A12	0.1 - 0.2 m	Dark brown (10YR3/3-Moist); ; Sand; Weak grade of structure, 5-10 mm, Angular blocky; Weak grade of structure, 2-5 mm, Granular; Rough-ped fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very weak consistence; Field pH 5.8 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -
A21	0.2 - 0.65 m	Strong brown (7.5YR5/6-Moist); ; Sand; 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 6 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
A22	0.65 - 0.85 m	Yellowish red (5YR5/6-Moist); , 10YR21, 0-2% , 0-5mm, Distinct; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very weak consistence; Very few (0 - 2 %), Ferruginous, Medium (2 -6 mm), Tubules; Field pH 6 (pH meter); Few, very fine (0-1mm) roots;
A23	0.85 - 1.1 m	Red (2.5YR4/6-Moist); ; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Many (20 - 50 %), Ferruginous, Very coarse (20 - 60 mm), Soft segregations; Field pH 5.7 (pH meter); Few, very fine (0-1mm) roots;
A24	1.1 - 1.38 m	Strong brown (7.5YR5/8-Moist); ; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Soft segregations; Field pH 5.7 (pH meter); Few, very fine (0-1mm) roots;
A25	1.38 - 1.55 m	Very pale brown (10YR7/3-Moist); ; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Very few (0 - 2 %), Ferruginous, Fine (0 - 2 mm), Soft segregations; Field pH 7 (pH meter); Few, very fine (0-1mm) roots; Sharp, Smooth change to -
B2	1.55 - 2.14 m	Light grey (10YR7/2-Moist); ; Clayey sand; Massive grade of structure; Sandy (grains prominent) fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Strong consistence; Field pH 6.5 (pH meter); Sharp, Smooth change to -

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2B2 2.14 - 2.7 m Strong brown (7.5YR5/6-Moist); , N20, 0-2% , 0-5mm, Prominent; Light clay; Moderate 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; 2-10%, cobbly, 60-200mm, angular tabular, Consolidated rock (unidentified), coarse fragments; Field pH 8.5 (pH meter);

Morphological Notes

A11 0-3cm is 7.5YR4/4 sand, loose, single grain - i.e., lighter than 3-10cm. The A2 is very slightly bleached. Though 65-130 is brightened ferruginous material, it has formed in the A2. Sample .05 is very ferruginized (red) layer, .06 is below
A12 the bright red material, .07 is immediately (10cm) above the B2, .08 is the top of the B2. The break at 214 marks the break from grey/white (perhaps silicified) brittle sand(stone) above to structured clay (with soil attributes) below. At 2
A21 45-250 there are plates of silicified sandstone and quartz gravels in a band, horizontal to the surface - similar to contact with Garawilla Volcanics.

Observation Notes

Parent Rock: alluvial sediment, sandstone, Pilliga Sandstone, weathered

Site Notes

Very soft sandy surface, beneath which is a hard setting, dark grey layer. Depth of surface (dispersed?) sand is 0.1-2cm. The small tree is quinine, the deep subsoil is ? prior soil ferruginous horizon.

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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