

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed420 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	M.E. Heape	Locality:	Bruce Tout, Oakvale
Date Desc.:	30/04/86	Elevation:	300 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6663500 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	775700 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:	Hillcrest	Slope Category:	Very gently sloped
Slope:	1 %	Aspect:	270 degrees

Surface Soil Condition (dry): Loose

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Dr4.13
		Great Soil Group:	Solodic soil

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Dark brown (7.5YR3/2-Moist); Brown (7.5YR4/2-Dry); ; Clayey fine sand; Weak grade of structure, 20-50 mm, Subangular blocky; Weak grade of structure, 2-5 mm, Granular; Rough-ped fabric; Few (<1 per 100mm ²) Fine (1-2mm) macropores, Moderately moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular, Consolidated rock (unidentified), coarse fragments; Field pH 8 (pH meter); Common, fine (1-2mm) roots;
A12	0.1 - 0.3 m	Dark brown (7.5YR3/2-Moist); Brown (7.5YR4/2-Dry); ; Clayey fine sand; Weak grade of structure, 20-50 mm, Subangular blocky; Weak grade of structure, <2 mm, Granular; Rough-ped fabric; Few (<1 per 100mm ²) Fine (1-2mm) macropores, Moderately moist; Weak consistence; 2-10%, medium gravelly, 6-20mm, subangular, Consolidated rock (unidentified), coarse fragments; Field pH 8 (pH meter); Few, very fine (0-1mm) roots; Clear, Wavy change to -
B21	0.3 - 0.55 m	Weak red (10R4/4-Moist); , 10YR71, 2-10% , 5-15mm, Distinct; , 7.5YR42, 0-2% , 0-5mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Prismatic; Weak grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm ²) Fine (1-2mm) macropores, Moderately moist; Very strong consistence; 2-10%, medium gravelly, 6-20mm, subangular, Consolidated rock (unidentified), coarse fragments; Field pH 8 (pH meter); Common, very fine (0-1mm) roots;
B22	0.55 - 0.88 m	Yellowish brown (10YR5/4-Moist); , 10YR61, 2-10% , 5-15mm, Distinct; , 10R44, 0-2% , 0-5mm, Distinct; Light clay; Moderate grade of structure, 20-50 mm, Prismatic; Weak grade of structure, 10-20 mm, Angular blocky; Rough-ped fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; 0-2%, fine gravelly, 2-6mm, subangular, Consolidated rock (unidentified), coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
C	0.88 - 1.11 m	Strong brown (7.5YR5/6-Moist); , 7.5YR62, 2-10% , 30-mm, Distinct; , 7.5YR42, 0-2% , 5-15mm, Distinct; Light clay; Massive grade of structure; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Very strong consistence; 2-10%, coarse gravelly, 20-60mm, subangular, Quartz, coarse fragments; Field pH 8 (pH meter); Sharp, Smooth change to -
2C1	1.11 - 1.9 m	White (2.5Y8/2-Moist); , 10YR52, 2-10% , 30-mm, Distinct; Light clay; Massive grade of structure; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm ²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 8.5 (pH meter); Many, medium (2-5mm) roots;

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed420 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

2C2 1.9 - 3.1 m White (10YR8/1-Moist); , 7.5YR62, 2-10% , 0-5mm, Distinct; Sand; Massive grade of structure; Rough-ped fabric; Few (<1 per 100mm²) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 6.5 (pH meter); Few, fine (1-2mm) roots;

Morphological Notes

A11 The top 1cm of the profile is loose and composed of extremely small aggregates and single grains. Note the large amount of coarse fragments in this soil, predominantly quartz, but others, too. Layer 3 has some colouring from the base of the

A12 A1, i.e. darker than the remainder of the B2 as exemplified by layer 4. Can the red mottles of layer 3 and 4 be primary colours? i.e. the centre of ped. There are many quartz coarse fragments at the B2-C boundary at 88cm. On the C-2C bound

B21 ary there are large 22cm silt and quartz pebbles. Appears that layer 6 has been truncated and the new pedis sediment laid over it. Note the lack of carbonate in the C horizon. C material is hard, whereas 2C rock is soft. 2C material remains w

B22 hite/yellow and soft to bottom of core. Co-author McGarry. An ironstone band occurs at 110cm with silty material above it, no evident lime.

Observation Notes

Parent Rock: alluvial sediment, from sandstone, with lime, Tertiary beds, weathered

Site Notes

Weak surface crust in fields - heaping or wash of material against the fence. Actually associated with edge of ploughed field.
? wind erosion on higher side.

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed420 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

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