

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed134 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	G.M. Roberts	Locality:	Paul White, Tarlee
Date Desc.:	11/09/85	Elevation:	242 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6660500 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	770400 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): Self-mulching, Recently cultivated

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Dy5.13
		Great Soil Group:	Alluvial soil

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11p	0 - 0.06 m	Very dark grey (10YR3/1-Moist); Brown (10YR5/3-Dry); ; Sandy clay loam; Weak grade of structure, 2-5 mm, Subangular blocky; Single grain grade of structure; Earthy fabric; Sandy (grains prominent) fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 6 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A12	0.06 - 0.25 m	Very dark grey (10YR3/1-Moist); ; Light clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Earthy fabric; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 7 (pH meter); Few, very fine (0-1mm) roots;
A13	0.25 - 0.42 m	Very dark greyish brown (10YR3/2-Moist); , 7.5YR5/6, 2-10% , 5-15mm, Prominent; Medium heavy clay; Moderate grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Soft segregations; Field pH 8.3 (pH meter); Few, very fine (0-1mm) roots;
B21k	0.42 - 1.14 m	Brown (7.5YR4/4-Moist); , 10YR3/2, 2-10% , 30-mm, Prominent; Medium heavy clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.4 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
B22	1.14 - 1.79 m	Brown (10YR4/3-Moist); , 10YR3/1, 10-20% , 30-mm, Prominent; Medium heavy clay; Moderate grade of structure, 50-100 mm, Prismatic; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Earthy fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; Field pH 8 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
C	1.79 - 2.69 m	Brown (7.5YR4/4-Moist); , 7.5YR3/2, 10-20% , 15-30mm, Prominent; Light clay; Weak grade of structure, 50-100 mm, Prismatic; Weak grade of structure, 5-10 mm, Subangular blocky; Sandy (grains prominent) fabric; Earthy fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; 2-10%, coarse gravelly, 20-60mm, rounded, Quartz, coarse fragments; Field pH 7.8 (pH meter);

Morphological Notes

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A11p Stains at 30-40 (7.5YR5/6) could be from old fires as aboriginal artifacts were found on the surface at this site. Rounded basalt gravels and coarse sand bands at 179cm.

Observation Notes

Parent Rock: alluvial sediment, calcareous sand, second terraced fan

Site Notes

Waterworn quartz up to 60mm in diameter on surface. The surface tends to be slightly dispersive, forming small surface seals.

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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	6.9A	0.136A	11.72B	5.61	2.94	0.09			
0 - 0.06	6.32A	0.134A	10.06B	4.35	1.63	0.04			
0.1 - 0.2	7.08A	0.065A	18.46B	5.61	1.23	0.12			
0.3 - 0.4	7.75A	0.057A	23.47B	7.55	0.84	0.32			
0.7 - 0.8	8.16A	0.06A	24.21B	9.32	0.79	0.51			
1.2 - 1.3	8.49A	0.054A	17.18B	6.27	0.7	0.49			
2.5 - 2.6	8.07A	0.044A	15.61B	6.71	0.65	0.67			

[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