

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed157 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	W.T. Ward	Locality:	F.J.(Fred) Whiteman, Moplain
Date Desc.:	03/12/86	Elevation:	348 metres
Map Ref.:	Sheet No. : 8837_N 1:50000	Rainfall:	No Data
Northing/Long.:	6657650 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	785400 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:	300 degrees

Surface Soil Condition (dry): Self-mulching, Trampled

Erosion:

Soil Classification

Australian Soil Classification:	N/A	Mapping Unit:	N/A
ASC Confidence:	Confidence level not specified	Principal Profile Form:	Ug5.32
		Great Soil Group:	Prairie soil

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 (5YR3/3-Dry); , 2.5YR44, 0-2% , 0-5mm, Distinct; Medium heavy clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Moderate grade of structure, 2-5 mm, Granular; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; 0-2%, fine gravelly, 2-6mm, angular, Basalt, coarse fragments; Field pH 7.5 (pH meter); Common, very fine (0-1mm) roots;
A12	0.1 - 0.2 m	Dark reddish brown (5YR3/2-Moist); , 2.5YR44, 0-2% , 0-5mm, Distinct; Medium heavy clay; Moderate grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Common (1-5 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
B21	0.2 - 0.45 m	Dark reddish brown (5YR3/4-Moist); ; Medium heavy clay; Strong grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Medium, (5 - 10) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Strong consistence; 0-2%, medium gravelly, 6-20mm, angular, Basalt, coarse fragments; Field pH 7.5 (pH meter); Few, fine (1-2mm) roots;
B22	0.45 - 0.6 m	Dark reddish brown (5YR3/4-Moist); ; Medium heavy clay; Strong grade of structure, 20-50 mm, Prismatic; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; 2-10%, medium gravelly, 6-20mm, angular, Basalt, coarse fragments; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Clear, Wavy change to -
C1	0.6 - 1 m	Dark red (2.5YR3/6-Moist); , 5YR64, 2-10% , 5-15mm, Prominent; Light medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Very firm consistence; 50-90%, medium gravelly, 6-20mm, subangular, Basalt, coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots;
C2	1 - 1.93 m	Dark red (2.5YR3/6-Moist); , 5YR74, 2-10% , 5-15mm, Prominent; Light medium clay; Single grain grade of structure, <2 mm; Earthy fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; 90-100%, medium gravelly, 6-20mm, subangular, Basalt, coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Veins; Field pH 8.5 (pH meter);

Morphological Notes

A11 Parent rock is probably Garawilla Volcanics. 70-80 abundant fragments of basalt, seemingly well structured. Shearvane difficult because of stone abundance. Tensile

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A12 120-130 not possible because of broken rock and fragmented character. 157.04
has some grit in light to medium clay. 157.05 is gravelly light to medium clay.

Observation Notes

Parent Rock: residual, basalt, Garrawilla Volcanics

Site Notes

Lightly trampled to otherwise virgin state, partly cleared. Few large belah, and cypress. Chocolate soil on basalt rising to a crest which stands a little higher than this slope, which could therefore be a pediment. The higher ground is sha

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Project Code: EDCERO1 Site ID: 3a
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Laboratory Test Results:

Depth	pH	1:5 EC	Exchangeable Ca	Exchangeable Mg	Cations K	Exchangeable Na	Exchangeable Acidity	CEC	ECEC	ESP
m		dS/m				Cmol (+)/kg				%
0 - 0.02	7.62A	0.108A	26.71B	9.92	4.53	<0.01				
0 - 0.1	6.89A	0.225A	25.75B	13.01	3.16	0.18				
0.1 - 0.2	6.92A	0.116A	25.58B	14.09	1.56	0.16				
0.3 - 0.4	7.28A	0.054A	25B	16.41	0.93999	0.47				
					99					
0.5 - 0.6	8.01A	0.117A	24.63B	19.82	1.14	0.76				
0.7 - 0.8	8.43A	0.137A	25.43B	17.88	0.7	0.93999				
						99				
1.2 - 1.3	8.55A	0.099A	23.48B	14.8	0.79	1.04				

Depth m	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size		Analysis	
	%	%	mg/kg	%	%	%	Mg/m3	GV	CS	FS %	Silt Clay
0 - 0.02	<0.1B	3.02C									12.9 61
0 - 0.1	0.1B	2.62C	43.4J								11.2 59.3
0.1 - 0.2	<0.1B	1.7C	8.8J								11.1 63.8
0.3 - 0.4	0.1B	1.41C	5.5J								12.2 63.9
0.5 - 0.6	0.5B	1.16C	10.4J								11 67.4
0.7 - 0.8	25.9B	0.5C	11.6J								14.8 40.9
1.2 - 1.3	8.9B	0.06C	<1J								18.4 29.2

[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