

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed241 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: W.T. Ward	Locality: stock route, opposite Murrumbilla gate
Date Desc.: 06/08/87	Elevation: 320 metres
Map Ref.: Sheet No. : 8837_N 1:50000	Rainfall: No Data
Northing/Long.: 6654900 AMG zone: 55	Runoff: No Data
Easting/Lat.: 781600 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: Pediment	Slope Category: Very gently sloped
Slope: 1 %	Aspect: 0 degrees

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: Ug5.12
	Great Soil Group: Brown clay

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11	0 - 0.1 m	Dark reddish brown (5YR3/2-Moist); Dark reddish brown (5YR3/3-Dry); ; Medium clay; Moderate grade of structure, 10-20 mm, Subangular blocky; Strong grade of structure, 2-5 mm, Granular; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; Field pH 6.8 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
A12	0.1 - 0.25 m	Dark reddish brown (5YR3/2-Moist); ; Medium clay; Moderate grade of structure, 100-200 mm, Prismatic; Strong grade of structure, 20-50 mm, Subangular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Strong consistence; Field pH 6.8 (pH meter); Few, very fine (0-1mm) roots;
A13	0.25 - 0.4 m	Dark reddish brown (5YR3/2-Moist); , 10YR44, 0-2% , 0-5mm, Distinct; Medium clay; Moderate grade of structure, 100-200 mm, Prismatic; Weak grade of structure, 20-50 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%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to -
A14	0.4 - 0.65 m	Dark reddish brown (5YR3/2-Moist); ; Medium clay; Strong grade of structure, 50-100 mm, Lenticular; Moderate grade of structure, 10-20 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; 0-2%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 8 (pH meter); Common, very fine (0-1mm) roots;
A15	0.65 - 0.75 m	Dark reddish brown (5YR3/2-Moist); , 2.5YR46, 10-20% , 0-5mm, Distinct; Medium heavy clay; Strong grade of structure, 5-10 mm, Granular; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; Strong consistence; 0-2%, fine gravelly, 2-6mm, subrounded, Basalt, coarse fragments; Very many (50 - 100 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -
B21r	0.75 - 1.9 m	Dark red (2.5YR3/6-Moist); ; Medium heavy clay; Massive grade of structure; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; 90-100%, medium gravelly, 6-20mm, angular, Basalt, coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 - 6 mm), Nodules; Field pH 8 (pH meter); Few, very fine (0-1mm) roots;

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B22r	1.9 - 3 m	Dark red (2.5YR3/6-Moist); , 7.5YR76, 0-2% , 0-5mm, Faint; Light clay; Massive grade of structure; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; 90-100%, medium gravelly, 6-20mm, angular, Basalt, coarse fragments; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Veins; Field pH 8 (pH meter); Diffuse, Smooth change to -
C	3 - 3.6 m	Reddish brown (2.5YR4/4-Moist); , 7.5YR76, 2-10% , 0-5mm, Distinct; Light clay; Massive grade of structure; Smooth-ped fabric; Fine, (0 - 5) mm crack; Moderately moist; 90-100%, coarse gravelly, 20-60mm, angular, Basalt, coarse fragments; Few cutans, <10% of ped faces or walls coated, distinct; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Veins;

Morphological Notes

A11 The surface soil of this profile self-mulching. 75-367 is very stony, fragmented weathered rock in situ. Carbonate veins moderately firm, sugary in appearance. The soil in the rock is inwashed. A chemical sample (241.08) was not taken. 241.

A12 06 is gravelly medium heavy clay.

Observation Notes

Parent Rock: residual, basalt, from sandstone and basalt, with lime Garrawilla Volcanics

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Laboratory Test Results:

[illegible][illegible][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