

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** na026 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By:	D. McGarry	Locality:	University of Sydney, I.A.Watson Research Farm
Date Desc.:	25/02/88	Elevation:	233 metres
Map Ref.:	Sheet No. : 8837_S 1:50000	Rainfall:	No Data
Northing/Long.:	6648570 AMG zone: 55	Runoff:	No Data
Easting/Lat.:	770420 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:	Level
Slope:	0 %	Aspect:	No Data

Surface Soil Condition (dry): Surface crust, Recently cultivated

Erosion:

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
N/A		Principal Profile Form:	N/A
ASC Confidence:		Great Soil Group:	N/A
Confidence level not specified			

Site Disturbance: Cultivation. Rainfed

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A11p	0 - 0.1 m	Very dark grey (10YR3/1-Moist); Very dark grey (10YR3/1-Dry); ; Light clay; Weak grade of structure, 2-5 mm, Granular; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Field pH 6 (pH meter); Few, very fine (0-1mm) roots; Abrupt, Smooth change to -
A12	0.1 - 0.25 m	Very dark grey (10YR3/1-Moist); ; Medium clay; Weak grade of structure, 10-20 mm, Prismatic; Weak grade of structure, 5-10 mm, Angular blocky; Rough-ped fabric; Fine, (0 - 5) mm crack; Few (<1 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;
A13	0.25 - 0.55 m	Dark greyish brown (10YR4/2-Moist); , 10YR74, 0-2% , 0-5mm, Distinct; Medium clay; Moderate grade of structure, 5-10 mm, Lenticular; Moderate grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change
B2	0.55 - 0.9 m	Yellowish red (5YR4/6-Moist); , 10YR32, 0-2% , 0-5mm, Distinct; Medium clay; Weak grade of structure, 5-10 mm, Lenticular; Moderate grade of structure, 2-5 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (pH meter); Abrupt, Smooth change to -
C1	0.9 - 1.72 m	Very dark grey (10YR3/1-Moist); ; Medium clay; Massive grade of structure; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; Very many (50 - 100 %), Calcareous, Very coarse (20 - 60 mm), Nodules; Field pH 8.5 (pH meter);
C2	1.72 - 2.8 m	Pale brown (10YR6/3-Moist); , N20, 0-2% , 0-5mm, Distinct; Light clay; Weak grade of structure, 10-20 mm, Angular blocky; Earthy fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Weak consistence; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.5 (pH meter);

Morphological Notes

A11p Na02605 is highly calcareous with carbonate being 70% of the volume. The carbonate is surrounded by black, perhaps faunal material. 90cm is noted as the B-C break, but it may be that it is a B2-B2k break, then C material below 90cm. From 10

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A12 0-200cm the core is fairly disturbed so the description of na02605 is somewhat poorly grounded. There is hard carbonate material from 172-240cm which is believed to be banding in the sediment. Lenticular pedality is correct, as there are no
A13 signs of slicks which would indicate wedges. Clayey to 90cm, calcareous nodular to 250cm, then marl.

Observation Notes

Parent Rock: , , Rolling Downs Group

Site Notes

Reddish topsoil. Quite dispersive. Large clods beginning to break down. The site is on a little hill top.

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[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