

Project Name: Soil Studies in the Lower Namoi Valley
Project Code: EDGEROI **Site ID:** ed112 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

| | |
|---|------------------------------|
| Desc. By: W.T. Ward | Locality: Vieta |
| Date Desc.: 18/12/86 | Elevation: 207 metres |
| Map Ref.: Sheet No. : 8837_N 1:50000 | Rainfall: No Data |
| Northing/Long.: 6663200 AMG zone: 55 | Runoff: No Data |
| Easting/Lat.: 758100 Datum: AGD66 | Drainage: No Data |

Geology

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|--|--|
| 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): Surface crust, Trampled

Erosion:

Soil Classification

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|---|---------------------------------------|
| Australian Soil Classification: N/A | Mapping Unit: N/A |
| ASC Confidence: Confidence level not specified | Principal Profile Form: Ug5.16 |
| | Great Soil Group: Grey clay |

Site Disturbance: Complete clearing. Pasture, native or improved, cultivated at some stage

Vegetation:

Surface Coarse Fragments:

Profile Morphology

| | | |
|-----|--------------|--|
| A11 | 0 - 0.1 m | Very dark grey (10YR3/1-Moist); Dark grey (10YR4/1-Dry); , 10YR62, 0-2% , 5-15mm, Distinct; Light medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Weak grade of structure, 2-5 mm, Platy; 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 6.5 (pH meter); Few, very fine (0-1mm) |
| A12 | 0.1 - 0.25 m | Dark grey (10YR4/1-Moist); , 10YR52, 0-2% , 0-5mm, Distinct; Medium clay; Moderate 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%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots; |
| A13 | 0.25 - 0.7 m | Very dark grey (10YR3/1-Moist); , 10YR52, 0-2% , 0-5mm, Distinct; , 7.5YR62, 0-2% , 0-5mm, Faint; Medium clay; Moderate 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%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); Few, very fine (0-1mm) roots; Gradual, Smooth change to - |
| B21 | 0.7 - 1 m | Brown (7.5YR4/2-Moist); , N30, 0-2% , 0-5mm, Faint; , 7.5YR52, 0-2% , 0-5mm, Distinct; Medium clay; Moderate grade of structure, 20-50 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; Very few (0 - 2 %), Calcareous, Fine (0 - 2 mm), Nodules; Field pH 8.5 (pH meter); |
| B22 | 1 - 1.9 m | Brown (7.5YR4/2-Moist); , 7.5YR74, 2-10% , 5-15mm, Prominent; , N30, 0-2% , 0-5mm, Faint; Medium clay; Moderate 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) Fine (1-2mm) macropores, Moderately moist; Strong consistence; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 8.5 (pH meter); |
| B23 | 1.9 - 2.78 m | Brown (7.5YR4/2-Moist); , 10YR22, 0-2% , 15-30mm, Distinct; , 7.5YR62, 2-10% , 5-15mm, Prominent; Medium clay; Moderate grade of structure, 50-100 mm, Lenticular; Moderate grade of structure, 20-50 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; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8 (pH meter); |

Morphological Notes

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A11 The A1 horizon includes a thin surface crust. Weak platy structure above the blocky structure in 0-10cm. Note the darkening in colour below topsoil, and good structure also,
A12 I. Oldest alluvium?

Observation Notes

Parent Rock: alluvial sediment, mixed texture, with lime, parna on fourth fan

Site Notes

Hardset, poached, trampled. The major cracks have been covered over by intense trampling. Described at collection as hpl by WTW.

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| Depth | pH | 1:5 EC | Ca | Exchangeable Mg | Cations K | Na | Exchangeable Acidity | CEC | ECEC | ESP |
|-----------|-------|--------|----------|-----------------|-----------|---------|----------------------|-----|------|-----|
| m | | dS/m | | | | Cmol | (+)/kg | | | % |
| 0 - 0.02 | 7.94A | 0.112A | 11.8B | 6.77 | 1.5 | 0.56 | | | | |
| 0 - 0.1 | 6.34A | 0.11A | 8.969999 | 5.72 | 0.85 | 0.83 | | | | |
| | | | B | | | | | | | |
| 0.1 - 0.2 | 7.56A | 0.074A | 15.35B | 8.690001 | 0.54 | 1.77 | | | | |
| 0.3 - 0.4 | 8.93A | 0.2A | 16.94B | 8.74 | 0.33 | 3.63 | | | | |
| 0.7 - 0.8 | 8.67A | 0.47A | 21.5B | 10.62 | 0.74 | 6.63 | | | | |
| 1.2 - 1.3 | 8.82A | 0.707A | 24.29B | 11.15 | 0.8 | 7.36 | | | | |
| 2.5 - 2.6 | 8.28A | 0.666A | 25.58B | 10.28 | 0.7 | 9.03000 | | | | |

[illegible]

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Laboratory Analyses Completed for this profile

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| 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 |