**Project Name:** LBV
**Project Code:** LBV **Site ID:** B73 **Observation ID:** 1
**Agency Name:** CSIRO Division of Soils (QLD)

## Site Information

**Desc. By:** C.H. Thompson
**Date Desc.:** 10/11/50
**Map Ref.:** Sheet No. : 8358 1:100000
**Northing/Long.:** 147.316666666667
**Easting/Lat.:** -19.8166666666667
**Locality:**
**Elevation:** 40 metres
**Rainfall:** 850
**Runoff:** Slow
**Drainage:** Imperfectly drained

## Geology

**ExposureType:** Soil pit
**Geol. Ref.:** CZS
**Conf. Sub. is Parent. Mat.:** No Data
**Substrate Material:** Auger boring, 3 m deep,Slightly porous, Unconsolidated material (unidentified)

## Land Form

**Rel/Slope Class:** Gently undulating plains <9m 1-3%
**Morph. Type:** No Data
**Elem. Type:** Plain
**Slope:** 0 %
**Pattern Type:** Alluvial plain
**Relief:** No Data
**Slope Category:** No Data
**Aspect:** No Data

## Surface Soil Condition (dry): Self-mulching

## Erosion:

## Soil Classification

**Australian Soil Classification:**
Epicalcareous Self-Mulching Black Vertosol
**ASC Confidence:**
Analytical data are incomplete but reasonable confidence.
**Mapping Unit:** N/A
**Principal Profile Form:** Ug5.24
**Great Soil Group:** Grey clay

## Site Disturbance: No effective disturbance other than grazing by hoofed animals

## Vegetation: Low Strata - Tussock grass, , Sparse. *Species includes - Heteropogon contortus

Tall Strata - Tree, 6.01-12m, Very sparse. *Species includes - Eucalyptus papuana, Grevillea striata, Atalaya hemiglauca

## Surface Coarse Fragments: No surface coarse fragments

## Profile Morphology

| | | |
|---|---|---|
| AB | 0 - 0.15 m | Dark greyish brown (2.5Y4/2-Moist); ; Heavy clay; Strong grade of structure, 2-5 mm, Granular; Dry; Very firm consistence; 2-10%, medium gravelly, 6-20mm, subangular, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 8.7 (pH meter); Gradual change to - |
| B2 | 0.15 - 0.66 m | Greyish brown (2.5Y5/2-Moist); ; Heavy clay; Moderate grade of structure, 50-100 mm, Prismatic; Dry; Very firm consistence; 0-2%, medium gravelly, 6-20mm, subangular, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Few (2 - 10 %), Calcareous, Medium (2 -6 mm), Nodules; Field pH 9.3 (pH meter); Gradual change to - |
| B2 | 0.66 - 1.02 m | Greyish brown (2.5Y5/2-Moist); ; Heavy clay; Moderate grade of structure, Angular blocky; Moist; Firm consistence; 0-2%, medium gravelly, 6-20mm, subangular, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9 (pH meter); Gradual change to - |
| B2 | 1.02 - 1.52 m | Light olive brown (2.5Y5/6-Moist); ; Heavy clay; Moderate grade of structure, Angular blocky; Moist; Firm consistence; 0-2%, medium gravelly, 6-20mm, subangular, coarse fragments; Very few (0 - 2 %), Manganiferous, Medium (2 -6 mm), Nodules; Few (2 - 10 %), Calcareous, Coarse (6 - 20 mm), Nodules; Field pH 9 (pH meter); |

## Morphological Notes

## Observation Notes

## Site Notes

BURDEKIN VALLE

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## Laboratory Test Results:

| Depth | pH | 1:5 EC | Exchangeable Cations | | | | Exchangeable Acidity | CEC | ECEC | ESP |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ca | Mg | K | Na | | | | |
| m | | dS/m | Cmol (+)/kg | | | | | | | % |
| 0 - 0.15 | 8.7H | 0.046B | 25.5K | 9.7 | 0.56 | 0.3 | | | 36E | |
| 0.15 - 0.66 | 9.3H | 0.15B | | | | | | | | |
| 0.66 - 1.02 | 9H | 0.389B | | | | | | | | |
| 1.02 - 1.52 | 9.1H | 0.408B | | | | | | | | |

| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Particle Size Analysis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | GV | CS | FS | Silt | Clay |
| m | % | % | mg/kg | % | % | % | Mg/m3 | | | % | | |
| 0 - 0.15 | 1.9C | 0.77E | 4C | 0.02F | 0.063B | | | 7 | 12C | 23 | 10 | 49 |
| 0.15 - 0.66 | | | | | | | | | | | | |
| 0.66 - 1.02 | | | | | | | | | | | | |
| 1.02 - 1.52 | | | | | | | | | | | | |

| Depth | COLE | Gravimetric/Volumetric Water Contents | | | | | | K sat | K unsat |
|---|---|---|---|---|---|---|---|---|---|
| | | Sat. | 0.05 Bar | 0.1 Bar | 0.5 Bar | 1 Bar | 5 Bar | 15 Bar | |
| m | | g/g - m3/m3 | | | | | | mm/h | mm/h |
| 0 - 0.15 | | | | | | | | | |
| 0.15 - 0.66 | | | | | | | | | |
| 0.66 - 1.02 | | | | | | | | | |
| 1.02 - 1.52 | | | | | | | | | |

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**Laboratory Analyses Completed for this profile**

| | |
|---|---|
| 15_NR | Sum of Ex. cations + Ex. acidity - Not recorded |
| 15_NR_CA | Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded |
| 15_NR_K | Exch. basic cations (K++) - meq per 100g of soil - Not recorded |
| 15_NR_MG | Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded |
| 15_NR_NA | Exch. basic cations (Na++) - meq per 100g of soil - Not recorded |
| 19B_NR | Calcium Carbonate (CaCO3) - Not recorded |
| 2_LOI | Loss on Ignition (%) |
| 2A1 | Air-dry moisture content |
| 3_NR | Electrical conductivity or soluble salts - Not recorded |
| 4_NR | pH of soil - Not recorded |
| 5_NR | Water soluble Chloride - Cl(%) - Not recordede |
| 6Z | Organic carbon (%) - Not recorded |
| 7_NR | Total nitrogen (%) - Not recorded |
| 9_NR | Available P (mg/kg) - Not recorded |
| 9A_NR | Total element - P(%) - Not recorded |
| P10_GRAV | Gravel (%) |
| P10_NR_C | Clay (%) - Not recorded |
| P10_NR_CS | Coarse sand (%) - Not recorded |
| P10_NR_FS | Fine sand (%) - Not recorded |
| P10_NR_Z | Silt (%) - Not recorded |