**Project Name:** **Regional**
**Project Code:** **REG** **Site ID:** **T314** **Observation ID:** **1**
**Agency Name:** **CSIRO Division of Soils (QLD)**

## Site Information

**Desc. By:** I. Lepsch
**Date Desc.:** 31/08/81
**Map Ref.:** Sheet No. : 8062 1:100000
**Northing/Long.:** 145.641666666667
**Easting/Lat.:** -17.625
**Locality:**
**Elevation:** 336 metres
**Rainfall:** 3500
**Runoff:** Rapid
**Drainage:** Rapidly drained

## Geology

**ExposureType:** Undisturbed soil core
**Geol. Ref.:** Cza
**Conf. Sub. is Parent. Mat.:** No Data
**Substrate Material:** No Data

## Land Form

**Rel/Slope Class:** Gently undulating plains <9m 1-3%
**Morph. Type:** No Data
**Elem. Type:** Plain
**Slope:** 2 %
**Pattern Type:** Lava plain
**Relief:** No Data
**Slope Category:** No Data
**Aspect:** No Data

## Surface Soil Condition (dry): Soft

## Erosion:

## Soil Classification

**Australian Soil Classification:**
Acidic Dystrophic Red Ferrosol
**ASC Confidence:**
Analytical data are incomplete but reasonable confidence.
**Mapping Unit:** N/A
**Principal Profile Form:** Uf6.31
**Great Soil Group:** Krasnozem

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

## Vegetation:

## Surface Coarse Fragments: No surface coarse fragments

## Profile Morphology

| | | |
|---|---|---|
| A1p | 0 - 0.1 m | Dark reddish brown (2.5YR3/4-Moist); Reddish brown (5YR4/4-Dry); ; Medium clay; Strong grade of structure, Granular; Moderately moist; Weak consistence; Clear change to - |
| A2p | 0.1 - 0.25 m | Dark red (2.5YR3/5-Moist); Dark red (2.5YR3/6-Dry); ; Medium clay; Moderate grade of structure, Granular; Moderately moist; Very weak consistence; Gradual change to - |
| B11 | 0.25 - 0.5 m | Dark red (2.5YR3/5-Moist); Red (2.5YR4/6-Dry); ; Medium clay; Massive grade of structure; Moderately moist; Very weak consistence; Gradual change to - |
| B12 | 0.5 - 0.65 m | Dark red (2.5YR3/6-Moist); Red (2.5YR4/6-Dry); ; Medium clay; Massive grade of structure; Moderately moist; Weak consistence; Clear change to - |
| B21 | 0.65 - 0.95 m | Dark red (2.5YR3/6-Moist); Red (2.5YR4/6-Dry); ; Medium clay; Moderate grade of structure, Subangular blocky; Moderately moist; Firm consistence; Gradual change to - |
| B21 | 1 - 1.25 m | Reddish brown (2.5YR4/4-Moist); Yellowish red (5YR4/6-Dry); ; Medium clay; Strong grade of structure, Polyhedral; Moderately moist; Firm consistence; 2-10%, Basalt, coarse fragments; Diffuse change to - |
| B22 | 1.25 - 1.5 m | Reddish brown (2.5YR4/4-Moist); Yellowish red (5YR4/6-Dry); ; Medium clay; Strong grade of structure, Polyhedral; Moderately moist; Firm consistence; Diffuse change to - |
| B22 | 1.5 - 1.8 m | Reddish brown (2.5YR4/4-Moist); Yellowish red (5YR4/6-Dry); ; Medium clay; Strong grade of structure, Polyhedral; Moderately moist; Firm consistence; Diffuse change to - |
| B23 | 1.8 - 2.2 m | Reddish brown (2.5YR4/4-Moist); Yellowish red (5YR4/6-Dry); , 5YR82, 0-2% , 0-5mm, Distinct; , 0-2% , 0-5mm, Distinct; Medium clay; Diffuse change to - |
| B23 | 2.2 - 2.7 m | Reddish brown (5YR4/4-Moist); Yellowish red (5YR4/6-Dry); , 5YR82, 0-2% , 0-5mm, Distinct; , 0-2% , 0-5mm, Distinct; Medium clay; Diffuse change to - |
| B3 | 2.7 - 3.2 m | Reddish brown (5YR4/4-Moist); Yellowish red (5YR4/6-Dry); , 5YR82, 0-2% , 0-5mm, Distinct; , 0-2% , 0-5mm, Distinct; Medium clay; |

## Morphological Notes

## Observation Notes

STRONG VERMIFORM UNITS FROM 125 CM:

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**Site Notes**

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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 - 0.1 | 4.8D<br>5.4A | | 0.7H | 0.55 | 0.15 | 0.05 | 0.4F | 2.74A | 1.9F | 1.82 |
| 0.1 - 0.25 | 5.3D<br>5.3A | | 0.03H | 0.08 | 0.07 | 0.03 | 0.3F | 1.3A | 0.5F | 2.31 |
| 0.25 - 0.5 | 5.4D<br>5.3A | | <0.02H | <0.01 | 0.03 | 0.03 | 0.3F | | 0.4F | |
| 0.5 - 0.65 | 5.2D<br>5.2A | | | | | | | | | |
| 0.65 - 0.95 | 5.4D<br>5.2A | | 0.05H | <0.01 | 0.03 | 0.03 | 0.3F | | 0.4F | |
| 1 - 1.25 | 5.5D<br>5.2A | | <0.02H | <0.01 | 0.02 | 0.02 | 0.2F | <0.1A | 0.3F | |
| 1.25 - 1.5 | 5.2D<br>5.1A | | 0.01H | 0.02 | 0.01 | <0.01 | | | | |
| 1.5 - 1.8 | 4.8D<br>5A | | | | | | | | | |
| 1.8 - 2.2 | 4.6D<br>5A | | <0.02H | <0.01 | 0.04 | 0.03 | 0.6F | 1.9A | 0.7F | 1.58 |
| 2.2 - 2.7 | 4.6D<br>5A | | | | | | | | | |
| 2.7 - 3.2 | 4.7D<br>4.9A | | <0.02H | 0.13 | 0.03 | 0.04 | 0.3F | 1.94A | 0.5F | 2.06 |

| 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 - 0.1 | | 3.96D | | | | | | | 6A | 11 | 19 | 64 |
| 0.1 - 0.25 | | 1.93D | | | | | | | 7A | 11 | 20 | 62 |
| 0.25 - 0.5 | | 0.98D | | | | | | | 6A | 11 | 17 | 66 |
| 0.5 - 0.65 | | | | | | | | | 5A | 10 | 20 | 65 |
| 0.65 - 0.95 | | 0.48D | | | | | | | 5A | 11 | 20 | 64 |
| 1 - 1.25 | | 0.2D | | | | | | | 2A | 14 | 13 | 71 |
| 1.25 - 1.5 | | 0.12D | | | | | | | | | | |
| 1.5 - 1.8 | | | | | | | | | | | | |
| 1.8 - 2.2 | | | | | | | | | | 22 | 16 | 61 |
| 2.2 - 2.7 | | | | | | | | | | | | |
| 2.7 - 3.2 | | 0.22D | | | | | | | 1A | 27 | 16 | 56 |

| 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 - 0.1 | | | | | | | | | |
| 0.1 - 0.25 | | | | | | | | | |
| 0.25 - 0.5 | | | | | | | | | |
| 0.5 - 0.65 | | | | | | | | | |
| 0.65 - 0.95 | | | | | | | | | |
| 1 - 1.25 | | | | | | | | | |
| 1.25 - 1.5 | | | | | | | | | |
| 1.5 - 1.8 | | | | | | | | | |

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1.8 - 2.2
2.2 - 2.7
2.7 - 3.2

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**Laboratory Analyses Completed for this profile**

| | |
|---|---|
| 15A2_CEC | Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts |
| 15E1_CA | Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble |
| 15E1_K | Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts |
| 15E1_MG | Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts |
| 15E1_NA | Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts |
| 15G_C | Exchange acidity (hydrogen and aluminium) - meq per 100g of soil - By 1M KCl exch. acidity by titration to pH 8.4 |
| 15J1 | Effective CEC |
| 4A1 | pH of 1:5 soil/water suspension |
| 4C1 | pH of 1:5 soil/1M potassium chloride extract - direct |
| 6A1_UC | Organic carbon (%) - Uncorrected Walkley and Black method |
| P10_CF_C | Clay (%) - Coventry and Fett pipette method |
| P10_CF_CS | Coarse sand (%) - Coventry and Fett pipette method |
| P10_CF_FS | Fine sand (%) - Coventry and Fett pipette method |
| P10_CF_Z | Silt (%) - Coventry and Fett pipette method |
| P10_NR_C | Clay (%) - Not recorded |
| P10_NR_FS | Fine sand (%) - Not recorded |
| P10_NR_Z | Silt (%) - Not recorded |