

Project Name: Regional
Project Code: REG **Site ID:** T317 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

| | | | |
|------------------------|---------------------------|-------------------|--------------|
| Desc. By: | I. Lepsch | Locality: | |
| Date Desc.: | 01/09/81 | Elevation: | 90 metres |
| Map Ref.: | Sheet No. : 8062 1:100000 | Rainfall: | 3500 |
| Northing/Long.: | 145.85 | Runoff: | Rapid |
| Easting/Lat.: | -17.5458333333333 | Drainage: | Well drained |

Geology

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

Land Form

| | | | |
|-------------------------|-----------|------------------------|-----------|
| Rel/Slope Class: | No Data | Pattern Type: | Low hills |
| Morph. Type: | No Data | Relief: | No Data |
| Elem. Type: | Hillcrest | Slope Category: | No Data |
| Slope: | 0 % | Aspect: | No Data |

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

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

Site Disturbance: Limited clearing, for example selective logging

Vegetation:

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

| | | |
|-----|--------------|--|
| A1 | 0 - 0.1 m | Dark reddish brown (2.5YR3/4-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Granular; Moderately moist; Weak consistence; Clear change to - |
| A3 | 0.1 - 0.2 m | Dark red (10R3/6-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Granular; Moderately moist; Very weak consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Concretions; Diffuse change to - |
| B1 | 0.2 - 0.4 m | Dark red (10R3/6-Moist); ; Medium clay; Weak grade of structure, Subangular blocky; Moderately moist; Very weak consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Concretions; Diffuse change to - |
| B1 | 0.4 - 0.6 m | Dark red (10R3/6-Moist); ; Medium clay; Massive grade of structure; Moderately moist; Weak consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Concretions; Diffuse change to - |
| B1 | 0.6 - 0.9 m | Dark red (10R3/6-Moist); ; Medium clay; Massive grade of structure; Moderately moist; Weak consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Concretions; Diffuse change to - |
| B1 | 0.9 - 1.2 m | Dark red (2.5YR3/6-Moist); ; Medium clay; Massive grade of structure; Moderately moist; Firm consistence; Few (2 - 10 %), Manganiferous, Medium (2 -6 mm), Concretions; Clear change to - |
| B21 | 1.2 - 1.5 m | Dark red (2.5YR3/6-Moist); ; Medium clay; Moderate grade of structure, 5-10 mm, Subangular blocky; Moderately moist; Very firm consistence; Clear change to - |
| B21 | 1.5 - 1.75 m | Dark red (2.5YR3/6-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Moderately moist; Very firm consistence; Diffuse change to - |
| B22 | 1.8 - 2.1 m | Reddish brown (5YR4/4-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Moderately moist; Very firm consistence; Diffuse change to - |
| B22 | 2.1 - 2.4 m | Reddish brown (5YR4/4-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Moderately moist; Very firm consistence; Diffuse change to - |
| B22 | 2.4 - 2.75 m | Reddish brown (5YR4/4-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Moderately moist; Very firm consistence; Diffuse change to - |

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| | | |
|-----|--------------|---|
| B31 | 2.8 - 3.1 m | Yellowish red (5YR4/6-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Moderately moist; Very firm consistence; Diffuse change to - |
| B31 | 3.1 - 3.3 m | Yellowish red (5YR4/6-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Moderately moist; Very firm consistence; Diffuse change to - |
| B31 | 3.3 - 3.65 m | Yellowish red (5YR4/6-Moist); ; Medium clay; Strong grade of structure, 5-10 mm, Polyhedral; Moderately moist; Very firm consistence; |

Morphological Notes

Observation Notes

FINE QZ VISIBLE TO 120CM: PROMINENT VERMIFORM STRUCTURE FROM 120CM

Site Notes

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Laboratory Test Results:

| Depth | pH | 1:5 EC | Ca | Exchangeable Mg | Cations K | Na | Exchangeable Acidity | CEC | ECEC | ESP |
|------------|--------------|--------|--------|-----------------|-----------|-------------|----------------------|-------|------|------|
| m | | dS/m | | | | Cmol (+)/kg | | | | % |
| 0 - 0.1 | 5.2D 5.6A | | 3.28H | 1.5 | 0.18 | 0.04 | 0.4F | 4.91A | 5.4F | 0.81 |
| 0.1 - 0.2 | 5.2D 5.4A | | 0.54H | 0.35 | 0.07 | 0.03 | 0.2F | 1.91A | 1.2F | 1.57 |
| 0.2 - 0.4 | 5.5D 5.3A | | 0.24H | 0.19 | 0.04 | 0.02 | 0.2F | | 0.7F | |
| 0.4 - 0.6 | 5.2D 5.1A | | 0.08H | 0.08 | 0.03 | 0.02 | 0.3F | | 0.5F | |
| 0.6 - 0.9 | 5.2D 5A | | | | | | | | | |
| 0.9 - 1.2 | 5.6D 5.2A | | 0.26H | 0.22 | 0.03 | 0.02 | 0.1F | 0.88A | 0.6F | 2.27 |
| 1.2 - 1.5 | 5.8D 5.4A | | 0.52H | 0.09 | 0.03 | 0.03 | 0.2F | | 0.9F | |
| 1.5 - 1.75 | 5.6D 5.3A | | | | | | | | | |
| 1.8 - 2.1 | 5.1D 4.8A | | | | | | | | | |
| 2.1 - 2.4 | 4.9D 4.9A | | <0.02H | <0.01 | 0.03 | 0.04 | 0.2F | 1.76A | 0.3F | 2.27 |
| 2.4 - 2.75 | 4.7D 4.9A | | | | | | | | | |
| 2.8 - 3.1 | 4.4D 5A | | <0.02H | <0.01 | 0.03 | 0.04 | 1.2F | 1.7A | 1.3F | 2.35 |
| 3.1 - 3.3 | 4.5D 5A | | | | | | | | | |
| 3.3 - 3.65 | 4.6D 4.9A | | <0.02H | <0.01 | 0.04 | 0.04 | 0.9F | 1.63A | 1F | 2.45 |

| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | Particle GV | Size CS | Analysis FS | Silt | Clay |
|------------|-------|-----------|----------|---------|---------|---------|--------------|-------------|---------|-------------|------|------|
| m | % | % | mg/kg | % | % | % | Mg/m3 | | | % | | |
| 0 - 0.1 | | 2.98D | | | | | | | 3A | 17 | 12 | 68 |
| 0.1 - 0.2 | | 1.25D | | | | | | | 2A | 19 | 17 | 62 |
| 0.2 - 0.4 | | 0.53D | | | | | | | 3A | 18 | 12 | 67 |
| 0.4 - 0.6 | | 0.38D | | | | | | | 2A | 17 | 11 | 70 |
| 0.6 - 0.9 | | | | | | | | | | | | |
| 0.9 - 1.2 | | 0.28D | | | | | | | 3A | 18 | 10 | 69 |
| 1.2 - 1.5 | | | | | | | | | | | | |
| 1.5 - 1.75 | | 0.08D | | | | | | | 5A | 14 | 16 | 65 |
| 1.8 - 2.1 | | <0.05D | | | | | | | | | | |
| 2.1 - 2.4 | | | | | | | | | <1A | 15 | 16 | 69 |
| 2.4 - 2.75 | | | | | | | | | | | | |
| 2.8 - 3.1 | | | | | | | | | 1A | 18 | 23 | 58 |
| 3.1 - 3.3 | | | | | | | | | | | | |
| 3.3 - 3.65 | | 0.07D | | | | | | | <1A | 15 | 19 | 66 |

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

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0 - 0.1
0.1 - 0.2
0.2 - 0.4
0.4 - 0.6
0.6 - 0.9
0.9 - 1.2
1.2 - 1.5
1.5 - 1.75
1.8 - 2.1
2.1 - 2.4
2.4 - 2.75
2.8 - 3.1
3.1 - 3.3
3.3 - 3.65

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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 (Ca ²⁺ ,Mg ²⁺ ,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 |
| 2A1 | Air-dry moisture content |
| 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 |