

**Project Name:** Regional  
**Project Code:** REG **Site ID:** T234 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Site Information**

|                        |                           |                   |   |
|------------------------|---------------------------|-------------------|---|
| <b>Desc. By:</b>       | G.G. Murtha               | <b>Locality:</b>  | On road to TV stations 4.1KM from Flinders Highway: |
| <b>Date Desc.:</b>     | 18/01/78                  | <b>Elevation:</b> | No Data   |
| <b>Map Ref.:</b>       | Sheet No. : 8259 1:100000 | <b>Rainfall:</b>  | 1200  |
| <b>Northing/Long.:</b> | 146.804166666667          | <b>Runoff:</b>    | Rapid   |
| <b>Easting/Lat.:</b>   | -19.358333333333          | <b>Drainage:</b>  | Well drained  |

**Geology**

|                      |                            |                                    |  |
|----------------------|----------------------------|------------------------------------|--|
| <b>ExposureType:</b> | Existing vertical exposure | <b>Conf. Sub. is Parent. Mat.:</b> | No Data  |
| <b>Geol. Ref.:</b>   | C-Pv                       | <b>Substrate Material:</b>         | Existing vertical exposure, 0.9 m deep, Andesite |

**Land Form**

|                         |           |                        |           |
|-------------------------|-----------|------------------------|-----------|
| <b>Rel/Slope Class:</b> | No Data   | <b>Pattern Type:</b>   | Mountains |
| <b>Morph. Type:</b>     | Mid-slope | <b>Relief:</b>         | No Data   |
| <b>Elem. Type:</b>      | Hillslope | <b>Slope Category:</b> | Steep     |
| <b>Slope:</b>           | 0 %       | <b>Aspect:</b>         | No Data   |

**Surface Soil Condition (dry):** Hardsetting

**Erosion:**

**Soil Classification**

|  |  |                                |                   |
|--|--|--------------------------------|-------------------|
| <b>Australian Soil Classification:</b>       |  | <b>Mapping Unit:</b>           | N/A               |
| Bleached Eutrophic Red Dermosol              |  | <b>Principal Profile Form:</b> | Dr2.4             |
| <b>ASC Confidence:</b>                       |  | <b>Great Soil Group:</b>       | Red podzolic soil |
| All necessary analytical data are available. |  |                                |                   |

**Site Disturbance:** No effective disturbance. Natural

**Vegetation:** Low Strata - Tussock grass, 0.51-1m, Mid-dense. \*Species includes - None recorded  
Tall Strata - Tree, 6.01-12m, Sparse. \*Species includes - Eucalyptus drepanophylla

**Surface Coarse Fragments:** No surface coarse fragments

**Profile Morphology**

|    |              |  |
|----|--------------|--|
| A1 | 0 - 0.1 m    | Very dark grey (10YR3/1-Moist); ; Loam; Moderate grade of structure, 5-10 mm, Angular blocky; Weak consistence; 2-10%, coarse gravelly, 20-60mm, Gravel, coarse fragments;   |
| A2 | 0.1 - 0.2 m  | Dark greyish brown (10YR4/2-Moist); Very pale brown (10YR7/4-Dry); ; Clay loam; Weak grade of structure, 5-10 mm, Angular blocky; Weak consistence; 2-10%, cobbly, 60-200mm, Gravel, coarse fragments; Gradual change to - |
| A2 | 0.2 - 0.25 m | Dark greyish brown (10YR4/2-Moist); Very pale brown (10YR7/4-Dry); ; Clay loam; Weak grade of structure, 5-10 mm, Angular blocky; Weak consistence; 2-10%, cobbly, 60-200mm, Gravel, coarse fragments;                     |
| B1 | 0.25 - 0.3 m | Yellowish red (5YR5/6-Moist); ; Light clay; Moderate grade of structure, 5-10 mm, Angular blocky; Moist; Weak consistence; 0-2%, medium gravelly, 6-20mm, Gravel, coarse fragments; Clear change to -                      |
| B2 | 0.3 - 0.45 m | Red (2.5YR5/8-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moist; Very firm consistence; Gradual change to -  |
| B2 | 0.45 - 0.6 m | Red (2.5YR5/8-Moist); ; Medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Moist; Very firm consistence;  |
| B3 | 0.6 - 0.8 m  | Red (2.5YR5/8-Moist); ; Medium clay; Weak grade of structure, 20-50 mm, Angular blocky; Moist; Very firm consistence;  |

**Morphological Notes**

**Observation Notes**

30-60CM <10% W'D PARENT MATERIAL:60-80CM 50% INCREASING TO 90% OF W'D PARENT MATERIAL:

**Site Notes**

MT STUART

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**Laboratory Test Results:**

| Depth      | pH   | 1:5 EC | Exchangeable Cations |      |      | Exchangeable |         | CEC   | ECEC  | ESP  |
|------------|------|--------|----------------------|------|------|--------------|---------|-------|-------|------|
| m          |      | dS/m   | Ca                   | Mg   | K    | Na           | Acidity |       |       | %    |
|            |      |        |                      |      |      | Cmol         | (+)/kg  |       |       |      |
| 0 - 0.1    | 6.4A | 0.059A | 10.4H                | 2.86 | 0.33 | 0.05         | 0.6F    | 14.2A | 14.2F | 0.35 |
| 0.1 - 0.2  | 6.5A | <0.05A | 6.04H                | 2.69 | 0.16 | 0.06         | 0.3F    | 9.21A | 9.3F  | 0.65 |
| 0.2 - 0.25 | 6.5A | <0.05A |                      |      |      |              |         |       |       |      |
| 0.25 - 0.3 | 6.5A | <0.05A | 5.84H                | 3.72 | 0.13 | 0.08         | 0.1F    | 4.17A | 9.9F  | 1.92 |
| 0.3 - 0.45 | 6.5A | <0.05A | 6.14H                | 4.34 | 0.1  | 0.11         | 0.1F    | 3.72A | 10.8F | 2.96 |
| 0.45 - 0.6 | 6.4A | <0.05A | 6.84H                | 4.85 | 0.09 | 0.15         | 0.4F    | 5.29A | 12.3F | 2.84 |
| 0.6 - 0.8  | 6.5A | <0.05A |                      |      |      |              |         |       |       |      |

| Depth      | CaCO3 | Organic | Avail. | Total | Total  | Total | Bulk Density | Particle |     | Size | Analysis |      |
|------------|-------|---------|--------|-------|--------|-------|--------------|----------|-----|------|----------|------|
|            | %     | C       | P      | P     | N      | K     |              | GV       | CS  |      | FS       | Silt |
| m          | %     | %       | mg/kg  | %     | %      | %     | Mg/m3        |          |     | %    |          |      |
| 0 - 0.1    |       | 2.39D   |        |       | 0.128A |       |              | 20       | 12A | 23   | 40       | 25   |
| 0.1 - 0.2  |       | 1.12D   |        |       | 0.06A  |       |              | 14       | 12A | 22   | 41       | 26   |
| 0.2 - 0.25 |       |         |        |       |        |       |              | 10       | 14A | 22   | 38       | 26   |
| 0.25 - 0.3 |       |         |        |       |        |       |              | <2       | 8A  | 21   | 38       | 32   |
| 0.3 - 0.45 |       |         |        |       |        |       |              | 15       | 10A | 21   | 32       | 38   |
| 0.45 - 0.6 |       |         |        |       |        |       |              | 0        | 9A  | 21   | 28       | 42   |
| 0.6 - 0.8  |       |         |        |       |        |       |              | <2       | 19A | 19   | 24       | 39   |

[illegible]

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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 <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) 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   |
| 3A1       | EC of 1:5 soil/water extract  |
| 4A1       | pH of 1:5 soil/water suspension   |
| 6A1_UC    | Organic carbon (%) - Uncorrected Walkley and Black method   |
| 7A2       | Total nitrogen - semimicro Kjeldahl , automated colour  |
| 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_GRAV  | Gravel (%)  |