

Project Name: Regional
Project Code: REG **Site ID:** T171 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

| | | | |
|------------------------|---------------------------|-------------------|-------------------------------------------------------|
| Desc. By: | G.G. Murtha | Locality: | 1.3KM north of Pretty Plains turnoff on Hann Highway: |
| Date Desc.: | 14/05/71 | Elevation: | 875 metres |
| Map Ref.: | Sheet No. : 7757 1:100000 | Rainfall: | 560 |
| Northing/Long.: | 144.319444444444 | Runoff: | Rapid |
| Easting/Lat.: | -20.079166666667 | Drainage: | Well drained |

Geology

| | | | |
|----------------------|-----------------------|------------------------------------|------------------------------------------|
| ExposureType: | Undisturbed soil core | Conf. Sub. is Parent. Mat.: | No Data |
| Geol. Ref.: | Czm | Substrate Material: | Undisturbed soil core, 0.7 m deep,Basalt |

Land Form

| | | | |
|-------------------------|--------------------------------------|------------------------|--------------------|
| Rel/Slope Class: | Gently undulating plains <9m 1-3% | Pattern Type: | Plain |
| Morph. Type: | Simple-slope | Relief: | 0 metres |
| Elem. Type: | Plain | Slope Category: | Very gently sloped |
| Slope: | 2 % | Aspect: | No Data |

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

| | | | |
|----------------------------------------------|--|--------------------------------|-------------------|
| Australian Soil Classification: | | Mapping Unit: | N/A |
| Haplic Eutrophic Brown Ferrosol | | Principal Profile Form: | Gn3.2 |
| ASC Confidence: | | Great Soil Group: | No suitable group |
| All necessary analytical data are available. | | | |

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

Vegetation: Low Strata - Tussock grass, 0.51-1m, Mid-dense. *Species includes - None recorded
Tall Strata - Tree, 6.01-12m, Very sparse. *Species includes - Eucalyptus crebra, Eucalyptus papuana

Surface Coarse Fragments: 0-2%, , subrounded, Basalt

Profile Morphology

| | | |
|----|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A1 | 0 - 0.1 m | Dark brown (7.5YR3/2-Moist); ; Loam; Weak grade of structure, 2-5 mm, Angular blocky; Dry; Firm consistence; Very few (0 - 2 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; |
| B1 | 0.1 - 0.2 m | Dark reddish brown (5YR3/4-Moist); ; Clay loam; Weak grade of structure, 2-5 mm, Angular blocky; Moist; Weak consistence; Very few (0 - 2 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; |
| | 0.2 - 0.3 m | Dark brown (7.5YR3/4-Moist); ; Light clay; Weak grade of structure, 2-5 mm, Angular blocky; Weak consistence; Very few (0 - 2 %), Ferromanganiferous, Fine (0 - 2 mm), Nodules; |
| B2 | 0.3 - 0.45 m | Strong brown (7.5YR4/6-Moist); ; Medium clay; Strong grade of structure, 2-5 mm, Angular blocky; Moist; Very firm consistence; Few (2 - 10 %), Ferromanganiferous, Coarse (6 - 20 mm), Nodules; |
| BC | 0.45 - 0.6 m | Strong brown (7.5YR4/6-Moist); ; Medium clay; Strong grade of structure, 2-5 mm, Angular blocky; Moist; Very firm consistence; Few (2 - 10 %), Ferromanganiferous, Coarse (6 - 20 mm), Nodules; |
| | 0.6 - 0.75 m | ; |

Morphological Notes

Weathered basalt with some pockets of B MC:

Observation Notes

OCCASIONAL BASALT FLOATER ON SURFACE AND THROUGH PROFILE:

Site Notes

PRETTY PLAINS

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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 | 6.9A | 0.047A | 10.7B | 4.5 | 0.96 | 0.03 | | | |
| 0.1 - 0.2 | 6.9A | 0.044A | 10.7B | 3.7 | 0.85 | 0.03 | | | |
| 0.2 - 0.3 | 6.9A | 0.041A | 10B | 3.8 | 0.73 | 0.03 | | | |
| 0.3 - 0.45 | 6.9A | 0.05A | 8.3B | 3.9 | 0.59 | 0.05 | | | |
| 0.45 - 0.6 | 6.2A | 0.059A | | | | | | | |
| 0.6 - 0.75 | | 0.059A | | | | | | | |

| Depth m | CaCO3 | Organic | Avail. | Total | Total | Total | Bulk Density Mg/m3 | Particle | | Size | Analysis | |
|----------------|-------|---------|------------|--------|--------|--------|--------------------------|----------|-----|---------|----------|------|
| | % | C % | P mg/kg | P % | N % | K % | | GV | CS | FS % | Silt | Clay |
| 0 - 0.1 | | 1.48D | 53B | | 0.09A | | | 0 | 27A | 17 | 23 | 35 |
| 0.1 - 0.2 | | 0.89D | 9B | | 0.08A | | | 0 | 25A | 14 | 22 | 39 |
| 0.2 - 0.3 | | 0.78D | 6B | | 0.07A | | | 0 | 25A | 14 | 19 | 45 |
| 0.3 - 0.45 | | 0.45D | 4B | | 0.05A | | | 0 | 21A | 11 | 18 | 53 |
| 0.45 - 0.6 | | 0.34D | | | | | | 0 | 25A | 9 | 10 | 56 |
| 0.6 - 0.75 | | | | | | | | 0 | 37A | 37 | 17 | 9 |

[illegible]

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Laboratory Analyses Completed for this profile

| | |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12_HF_CU | Total element - Cu(mg/kg) - HF/HClO ₄ Digest |
| 12_HF_FE | Total element - Fe(%) - HF/HClO ₄ Digest |
| 12_HF_MN | Total element - Mn(mg/kg) - HF/HClO ₄ Digest |
| 12_HF_ZN | Total element - Zn(mg/kg) - HF/HClO ₄ Digest |
| 13C1_FE | Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon |
| 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 |
| 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 |
| 9G_BSES | Available P (mg/kg) - Acid P - 0.005M H ₂ SO ₄ (BSES) |
| 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 (%) |
| XRD_C_Hm | Hematite - X-Ray Diffraction |
| XRD_C_Is | Interstratified clay minerals - X-Ray Diffraction |
| XRD_C_Ka | Kaolin - X-Ray Diffraction |