

**Project Name:** Regional  
**Project Code:** REG **Site ID:** T82 **Observation ID:** 1  
**Agency Name:** CSIRO Division of Soils (QLD)

**Site Information**

<b>Desc. By:</b>	R.F. Isbell	<b>Locality:</b>	0.6KM west of Mt.Spec Post Office on Running River Road:
<b>Date Desc.:</b>	13/11/68	<b>Elevation:</b>	914 metres
<b>Map Ref.:</b>	Sheet No. : 8159 1:100000	<b>Rainfall:</b>	2032
<b>Northing/Long.:</b>	146.2	<b>Runoff:</b>	Very slow
<b>Easting/Lat.:</b>	-19.0125	<b>Drainage:</b>	No Data

**Geology**

<b>ExposureType:</b>	Undisturbed soil core	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	Cuy	<b>Substrate Material:</b>	Undisturbed soil core, Igneous rock (unidentified)

**Land Form**

<b>Rel/Slope Class:</b>	Undulating rises 9-30m 3-10%	<b>Pattern Type:</b>	Plain
<b>Morph. Type:</b>	No Data	<b>Relief:</b>	15 metres
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	Gently inclined
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

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

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>		<b>Mapping Unit:</b>	N/A
Bleached-Acidic Dystrophic Yellow Kandosol		<b>Principal Profile Form:</b>	Gn3.84
<b>ASC Confidence:</b>		<b>Great Soil Group:</b>	Xanthozem
All necessary analytical data are available.			

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

**Vegetation:**

**Surface Coarse Fragments:**

**Profile Morphology**

A11	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Greyish brown (10YR5/2-Dry); ; Sandy clay loam (Light); Moderate grade of structure, 2-5 mm, Granular; Moderately moist; Weak consistence; Abundant, fine (1-2mm) roots; Clear change to -
A12	0.1 - 0.2 m	Brown (10YR5/3-Moist); Pale brown (10YR6/3-Dry); ; Sandy clay loam (Light); Weak grade of structure, 5-10 mm, Angular blocky; Moderately moist; Weak consistence; Many, fine (1-2mm) roots; Gradual change to -
A21	0.2 - 0.3 m	Yellowish brown (10YR5/4-Moist); Very pale brown (10YR7/3-Dry); ; Sandy clay loam; Weak grade of structure, 5-10 mm, Angular blocky; Moderately moist; Weak consistence; ManyGradual change to -
A22	0.3 - 0.4 m	Brownish yellow (10YR6/5-Moist); Very pale brown (10YR7/3-Dry); ; Sandy clay loam (Heavy); Weak grade of structure, 5-10 mm, Angular blocky; Common (1-5 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Weak consistence; FewGradual change to -
B1	0.4 - 0.6 m	Reddish yellow (7.5YR6/8-Moist); Reddish yellow (7.5YR8/5-Dry); , 5YR58; Light clay; Weak grade of structure, 5-10 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Weak consistence; FewGradual change to -
B21	0.6 - 0.9 m	Reddish yellow (7.5YR6/6-Moist); , 2.5YR56, 10-20% , 5-15mm, Faint; , 10YR76, 10-20% , 5-15mm, Faint; Medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very firm consistence; FewGradual change to -
B22	0.9 - 1.2 m	Light red (2.5YR6/8-Moist); , 7.5YR78, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very firm consistence; Gradual change to -
B22	1.2 - 1.5 m	Light red (2.5YR6/8-Moist); , 7.5YR78, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Very firm consistence; Gradual change to -

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B23	1.5 - 1.8 m	Reddish yellow (5YR7/8-Moist); , 7.5YR78, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Moderately moist; Firm consistence;
B23	1.8 - 2.1 m	Reddish yellow (5YR7/8-Moist); , 7.5YR78, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Moderately moist; Firm consistence; Gradual change to -
B24	2.1 - 2.4 m	Reddish yellow (5YR7/8-Moist); , 7.5YR78, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Heavy clay; Weak grade of structure, 10-20 mm, Angular blocky; Moderately moist; Firm consistence; Gradual change to -
B25	2.4 - 2.7 m	Reddish yellow (7.5YR7/6-Moist); , 5YR66, 10-20% , 5-15mm, Faint; , 10-20% , 5-15mm, Faint; Light medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Moderately moist; Firm consistence; 2-10%, medium gravelly, 6-20mm, Quartz, coarse fragments; Gradual change to -
B31	2.7 - 3 m	Reddish yellow (7.5YR7/8-Moist); , 5YR66, 2-10% , 5-15mm, Faint; , 2-10% , 5-15mm, Faint; Light medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Moderately moist; Firm consistence; 2-10%, Quartz, coarse fragments;
B31	3 - 3.3 m	Reddish yellow (7.5YR7/8-Moist); , 5YR66, 2-10% , 5-15mm, Faint; , 2-10% , 5-15mm, Faint; Light medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Moderately moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, Quartz, coarse fragments;
B31	3.3 - 3.6 m	Reddish yellow (7.5YR7/8-Moist); , 5YR66, 2-10% , 5-15mm, Faint; , 2-10% , 5-15mm, Faint; Light medium clay; Weak grade of structure, 10-20 mm, Angular blocky; Moderately moist; Firm consistence; 0-2%, Quartz, coarse fragments; Gradual change to -
BC	3.6 - 3.9 m	Yellow (10YR7/8-Moist); , 5YR66, 2-10% , 5-15mm, Faint; , 2-10% , 5-15mm, Faint; Light clay; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 0-2%, Quartz, coarse fragments; Gradual change to -
BC	3.9 - 4.2 m	Brownish yellow (10YR6/8-Moist); , 2.5YR56, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Light clay; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 0-2%, Quartz, coarse fragments; Gradual change to -
	4.2 - 4.5 m	Brownish yellow (10YR6/8-Moist); , 2.5YR56, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Light clay; Massive grade of structure; Earthy fabric; Weak consistence; 0-2%, Quartz, coarse fragments; Field pH 4.5 (pH meter); Gradual change to -
C	4.5 - 4.9 m	Brownish yellow (10YR6/8-Moist); , 2.5YR56, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Light clay; Massive grade of structure; Earthy fabric; Moderately moist; Weak consistence; 0-2%, Gravel, coarse fragments;

#### **Morphological Notes**

#### **Observation Notes**

AT 260-490CM IS A 1-2CM QUARTZ VLEN:>210CM WHITE WEATHERED FELDSPAR INCREASING:C HORIZON ROCK FABRIC EVIDENT:

#### **Site Notes**

MT SPEC

**Observation ID: 1**

[illegible]

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0.1 - 0.2  
0.2 - 0.3  
0.3 - 0.4  
0.4 - 0.6  
0.6 - 0.9  
0.9 - 1.2  
1.2 - 1.5  
1.5 - 1.8  
1.8 - 2.1  
2.1 - 2.4  
2.4 - 2.7  
2.7 - 3  
3 - 3.3  
3.3 - 3.6  
3.6 - 3.9  
3.9 - 4.2  
4.2 - 4.5  
4.5 - 4.9

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**Laboratory Analyses Completed for this profile**

10A1	Total sulfur - X-ray fluorescence
15A2_CA	Exchangeable bases (Ca <sup>2+</sup> , Mg <sup>2+</sup> , Na <sup>+</sup> , K <sup>+</sup> ) - 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
17A1	Total potassium - X-ray fluorescence
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A2	Total nitrogen - semimicro Kjeldahl , automated colour
9A1	Total phosphorus - X-ray fluorescence
9B_9C	Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO <sub>3</sub> extractable
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H <sub>2</sub> SO <sub>4</sub> (BSES)
P10_GRAV	Gravel (%)
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance
XRD_C_Ch2	Chloritized 2:1 minerals - X-Ray Diffraction
XRD_C_Ka	Kaolin - X-Ray Diffraction
XRD_C_Qz	Quartz - X-Ray Diffraction