

Project Name: Regional
Project Code: REG **Site ID:** T134 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (QLD)

Site Information

Desc. By: R.F. Isbell	Locality: 7.2KM north along hornet Creek from turnoff:
Date Desc.: 16/07/70	Elevation: No Data
Map Ref.: Sheet No. : 7474 1:100000	Rainfall: 1680
Northing/Long.: 142.6	Runoff: Very slow
Easting/Lat.: -11.533333333333	Drainage: Moderately well drained

Geology

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

Land Form

Rel/Slope Class: Rolling rises 9-30m 10-32%	Pattern Type: Rises
Morph. Type: Ridge	Relief: 24 metres
Elem. Type: Hillcrest	Slope Category: Gently inclined
Slope: 1 %	Aspect: No Data

Surface Soil Condition (dry): Soft

Erosion:

Soil Classification

Australian Soil Classification:	Mapping Unit: N/A
Ferric Dystrophic Red Kandosol	Principal Profile Form: Gn2.64
ASC Confidence:	Great Soil Group: Yellow earth
All necessary analytical data are available.	

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

Vegetation: Low Strata - Sedge, 0.51-1m, Very sparse. *Species includes - Xanthorrhoea johnsonii
 Tall Strata - Heath shrub, 1.01-3m, Mid-dense. *Species includes - Grevillea glauca, Acacia species

Surface Coarse Fragments: No surface coarse fragments

Profile Morphology

A11	0 - 0.1 m	Very dark greyish brown (10YR3/2-Moist); Greyish brown (10YR5/2-Dry); ; Loamy sand; Weak grade of structure, 5-10 mm, Angular blocky; Dry; Firm consistence; Gradual change to -
A12	0.1 - 0.2 m	Brown (10YR4/3-Moist); Brown (10YR5/3-Dry); ; Loamy sand (Heavy); Weak grade of structure, 5-10 mm, Angular blocky; Dry; Very firm consistence; Gradual change to -
A21	0.2 - 0.3 m	Dark yellowish brown (10YR4/4-Moist); Yellowish brown (10YR5/4-Dry); ; Coarse sandy loam (Light); Massive grade of structure; Dry; Very firm consistence;
A22	0.3 - 0.4 m	Yellowish brown (10YR5/5-Moist); Brownish yellow (10YR6/5-Dry); ; Coarse sandy loam (Light); Massive grade of structure; Dry; Very firm consistence; Gradual change to -
B11	0.4 - 0.5 m	Yellowish brown (10YR5/6-Moist); Yellow (10YR7/6-Dry); ; Coarse sandy loam (Light); Massive grade of structure; Moderately moist; Very weak consistence;
B11	0.5 - 0.6 m	Yellowish brown (10YR5/6-Moist); Brownish yellow (10YR6/6-Dry); ; 5YR58, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Coarse sandy loam (Light); Massive grade of structure; Moderately moist; Very weak consistence;
B12	0.6 - 0.75 m	Reddish yellow (7.5YR6/8-Moist); , 5YR58, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Coarse sandy loam (Light); Massive grade of structure; Moderately moist; Very weak consistence;
B12	0.75 - 0.9 m	Reddish yellow (7.5YR6/8-Moist); , 2.5Y76; , 5YR58; Coarse sandy loam (Light); Massive grade of structure; Moderately moist; Weak consistence;
B12	0.9 - 1.05 m	Strong brown (7.5YR5/8-Moist); , 2.5Y76; Coarse sandy loam; Massive grade of structure; Moderately moist; Very weak consistence; Gradual change to -
B21	1.05 - 1.2 m	Yellowish red (5YR5/8-Moist); , 2.5Y76, 10-20% , 0-5mm, Faint; , 10-20% , 0-5mm, Faint; Sandy clay loam (Light); Massive grade of structure; Moderately moist; Weak consistence;
B21	1.2 - 1.3 m	Yellowish red (5YR5/8-Moist); , 10YR77, 10-20% , 5-15mm, Distinct; , 10-20% , 5-15mm, Distinct; Sandy clay loam; Massive grade of structure; Moderately moist; Firm consistence; 0-2%, Sandstone, coarse fragments; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Clear change to -

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B22	1.3 - 1.5 m	Yellowish red (5YR5/8-Moist); , 10YR78, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Sandy clay loam (Heavy); Massive grade of structure; Moderately moist; Firm consistence; 10-20%, angular, Sandstone, coarse fragments; Very many (50 - 100 %), Ferruginous, Coarse (6 - 20 mm), Nodules; Gradual change to -
B22	1.5 - 1.8 m	Yellowish red (5YR5/8-Moist); , 10YR78, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Light clay; Massive grade of structure; Moderately moist; Firm consistence; Very many (50 - 100 %), Ferruginous, Very coarse (20 - 60 mm), Nodules;
	1.8 - 2.05 m	Yellowish red (5YR5/8-Moist); , 10YR78, 2-10% , 5-15mm, Distinct; , 2-10% , 5-15mm, Distinct; Light medium clay; Massive grade of structure; Firm consistence; 10-20%, angular, Sandstone, coarse fragments; Common (10 - 20 %), Ferruginous, Coarse (6 - 20 mm), Nodules;
	2.05 - 2.25 m	Reddish yellow (7.5YR6/8-Moist); , 5YR58; Light medium clay; Massive grade of structure; Firm consistence; 20-50%, cobbly, 60-200mm, angular, Sandstone, coarse fragments; Few (2 - 10 %), Ferruginous, Fine (0 - 2 mm), Nodules;

Morphological Notes

Observation Notes

50-75CM A1 MATERIAL IN ROOT CHANNELS

Site Notes

HEATHLANDS

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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	5.6A	0.035A	0.14B	0.16	0.06	0.07	5.4F	3.1C	5.8F	2.26
0.1 - 0.2	5.8A	0.029A								
0.2 - 0.3	5.9A	0.026A	0.04B	0.06	0.08	0.05	2.4F	1.1C	2.6F	4.55
0.3 - 0.4	6A	0.02A								
0.4 - 0.5	6A	0.026A								
0.5 - 0.6	6.1A	0.017A	0.02B	0.1	0.05	0.05	1F	0.6C	1.2F	8.33
0.6 - 0.75	6.3A	0.014A								
0.75 - 0.9	6.1A	0.023A								
0.9 - 1.05	6.1A	0.02A								
1.05 - 1.2	5.8A	0.029A	0.04B	0.25	0.09	0.05	1.3F	0.7C	1.7F	7.14
1.2 - 1.3	5.6A	0.047A								
1.3 - 1.5	5.8A	0.032A								
1.5 - 1.8	5.6A	0.032A								
1.8 - 2.05	5.4A	0.035A	0.04B	0.67	0.17	0.08	2.7F	0.7C	3.7F	11.43
2.05 - 2.25	5.6A	0.029A								

Depth m	CaCO3 %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle		Size FS %	Analysis	
								GV	CS		Silt	Clay
0 - 0.1		1.15D	4A <2B	0.005A	0.08A	0.02A		0	18A	75	2	8
0.1 - 0.2								0	17A	73	2	8
0.2 - 0.3		0.62D	<2A <2B	0.005A	0.05A	0.02A		0	17A	72	2	9
0.3 - 0.4								0	24A	65	2	9
0.4 - 0.5												
0.5 - 0.6		0.06D	<2B	0.005A	0.02A	0.02A		0	16A	73	2	9
0.6 - 0.75												
0.75 - 0.9												
0.9 - 1.05												
1.05 - 1.2			<2B	0.005A		0.03A		0	14A	67	2	17
1.2 - 1.3								24	15A	62	2	21
1.3 - 1.5								60	15A	51	3	32
1.5 - 1.8								80	15A	41	3	41
1.8 - 2.05			<2B	0.016A		0.1A		40	22A	32	3	43
2.05 - 2.25								38	42A	27	3	28

[illegible]

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1.05 - 1.2
1.2 - 1.3
1.3 - 1.5
1.5 - 1.8
1.8 - 2.05
2.05 - 2.25

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Laboratory Analyses Completed for this profile

10A1	Total sulfur - X-ray fluorescence
12_HF_CU	Total element - Cu(mg/kg) - HF/HClO4 Digest
12_HF_FE	Total element - Fe(%) - HF/HClO4 Digest
12_HF_MN	Total element - Mn(mg/kg) - HF/HClO4 Digest
12_HF_ZN	Total element - Zn(mg/kg) - HF/HClO4 Digest
13C1_AL	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
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
15D1_CEC	CEC - 1M ammonium acetate at pH 7.0, pretreatment for soluble salts; manual leach
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
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
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 ₃ extractable
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 (%)